Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Phosphatidylinositol 4-kinase alpha	IPI00070943	231,300.00	99.80%	2	2	2	0.01%	0.73%	KTSSVSSISQVSPER	R	G	95.00%	2.55	0.261	0	1	0	0	2	1,671.79	196	210	TRUE	
SNU216LR_PC1_01	Isoform 1 of Phosphatidylinositol 4-kinase alpha	IPI00070943	231,300.00	99.80%	2	2	2	0.01%	0.73%	TSSVSSISQVSPER	K	G	95.00%	2.64	0.219	0	1	0	0	2	1,543.70	197	210	TRUE	
SNU216LR_PC1_01	PREDICTED: AF-1 specific protein phosphatase isc	IPI00735331,IPI00739012,IP	323,687.40	99.80%	1	1	1	0.01%	0.43%	TEGTPPPPGQPAK	R	G	95.00%	2.13	0.322	0	1	0	0	2	1,356.62	1081	1093	TRUE	
SNU216LR_PC1_01	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.80%	2	2	2	0.01%	2.09%	KIPEPSPVTR	K	R	95.00%	2.21	0.319	0	1	0	0	2	1,203.61	1221	1230	TRUE	
SNU216LR_PC1_01	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.80%	2	2	2	0.01%	2.09%	KLSSSDAPAQDTGSSAAAVETDASR	R	T	95.00%	4.05	0.339	0	0	1	0	2	2,502.10	838	862	TRUE	
SNU216LR_PC1_01	Peregrin	IPI00023856,IPI00456620	138,186.80	100.00%	3	3	3	0.02%	6.18%	ESQMTPSHGGSPVGPPQLPIMSSLR	R	Q	95.00%	4.17	0.47	0	0	1	0	2	2,670.24	922	946	TRUE	
SNU216LR_PC1_01	Peregrin	IPI00023856,IPI00456620	138,186.80	100.00%	3	3	3	0.02%	6.18%	GAGWLSEDEDSPLDALDLVWAK	R	C	95.00%	4.91	0.524	0	1	0	0	2	2,467.11	1077	1098	TRUE	
SNU216LR_PC1_01	Peregrin	IPI00023856,IPI00456620	138,186.80	100.00%	3	3	3	0.02%	6.18%	RLPALSHSEGEEDEDEEEDEGKGWSSEK	R	V	95.00%	3.9	0.318	0	0	0	1	2	3,334.29	455	482	TRUE	
SNU216LR_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00102107	296,653.80	99.00%	2	2	2	0.01%	1.37%	AASPHQVTPQADEK	R	M	88.00%	2.39	0.192	0	1	0	0	2	1,558.69	2469	2482	TRUE	
SNU216LR_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00102107	296,653.80	99.00%	2	2	2	0.01%	1.37%	TATSPKETVEEGVEHDPGMPASK	R	K	91.40%	3.8	0.14	0	0	1	0	2	2,477.09	1507	1529	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transformation/transcription domain	IPI00069084,IPI00394732	434,399.80	100.00%	2	2	2	0.01%	1.17%	ERENSESKEEDVEIDIELAPGDQTSTPK	R	T	95.00%	3.87	0.17	0	0	1	0	2	3,225.43	2530	2557	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transformation/transcription domain	IPI00069084,IPI00394732	434,399.80	100.00%	2	2	2	0.01%	1.17%	SQSLPGADSLLAKPIDK	R	Q	95.00%	2.92	0.23	0	0	1	0	2	1,819.92	2057	2073	TRUE	
SNU216LR_PC1_01	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	100.00%	3	3	3	0.02%	4.49%	KETSFGSSENITMTSLSK	K	V	95.00%	2.28	0.254	0	1	0	0	2	2,026.90	929	946	TRUE	
SNU216LR_PC1_01	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	100.00%	3	3	3	0.02%	4.49%	QLSLEGSGLGVEDLKDNTPSGK	R	S	95.00%	4.81	0.409	0	0	1	0	2	2,324.10	750	771	TRUE	
SNU216LR_PC1_01	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	100.00%	3	3	3	0.02%	4.49%	SGSLDDSFSDFQELPASSK	K	T	95.00%	3.77	0.485	0	1	0	0	2	2,096.87	467	485	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.75	0.589	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4.88	0.327	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	6.6	0.618	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.50%	2	2	2	0.01%	2.64%	HLYISSSNPDLITR	R	R	89.30%	3.04	0.0642	0	1	0	0	2	1,695.81	584	597	TRUE	
SNU216LR_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.50%	2	2	2	0.01%	2.64%	RNSIEVAGLSHGLEGLR	K	L	95.00%	5.01	0.437	0	0	1	0	2	1,887.94	635	651	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	8	10	0.06%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.36	0.428	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	8	10	0.06%	4.56%	EKEISDDEAEEEK	R	G	95.00%	2.98	0.448	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	8	10	0.06%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	2.31	0.344	0	1	0	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	8	10	0.06%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.88	0.364	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	8	10	0.06%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.71	0.497	0	2	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	8	10	0.06%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.73	0.417	0	2	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC1_01	Ankyrin repeat domain-containing protein 11	IPI00002286,IPI00744988	298,076.50	99.70%	2	2	2	0.01%	0.83%	FSLSDDQR	K	D	94.50%	1.9	0.265	0	1	0	0	2	1,047.41	832	839	TRUE	
SNU216LR_PC1_01	Ankyrin repeat domain-containing protein 11	IPI00002286,IPI00744988	298,076.50	99.70%	2	2	2	0.01%	0.83%	VANSPTMVNLLLGK	K	G	95.00%	2.67	0.463	0	1	0	0	2	1,536.79	274	287	TRUE	
SNU216LR_PC1_01	CREB-binding protein	IPI00023339,IPI00619932	265,331.20	99.80%	1	1	1	0.01%	0.49%	SISPSALQDLLR	R	T	95.00%	2.58	0.302	0	1	0	0	2	1,379.69	2061	2072	TRUE	
SNU216LR_PC1_01	Baculoviral IAP repeat-containing protein 6	IPI00299635	527,609.80	99.80%	1	2	2	0.01%	0.39%	LEGDSDDLLEDSDSEEHSR	K	S	95.00%	4.19	0.376	0	1	1	0	2	2,227.85	441	459	TRUE	
SNU216LR_PC1_01	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	99.80%	1	1	1	0.01%	1.98%	EAAEPLSEPKEDQEAAELLSEPEEESER	R	H	95.00%	4.72	0.416	0	0	1	0	2	3,221.39	1104	1131	TRUE	
SNU216LR_PC1_01	Isoform 1 of Rap guanine nucleotide exchange fa	IPI00008865,IPI00291839,IP	137,140.30	98.70%	1	1	1	0.01%	1.25%	LPEGPVDSEDDEEEDEEIDR	R	T	95.00%	5.11	0.654	0	1	0	0	2	2,396.91	273	292	TRUE	
SNU216LR_PC1_01	Ankyrin-3	IPI00472779,IPI00478210	480,407.20	99.80%	2	2	3	0.02%	1.03%	ADIVQQLLQQGASPNAATTSGYTPLHLSAR	K	E	95.00%	4.46	0.205	0	0	1	0	2	3,188.57	512	541	TRUE	
SNU216LR_PC1_01	Ankyrin-3	IPI00472779,IPI00478210	480,407.20	99.80%	2	2	3	0.02%	1.03%	LSLHEEEGSSGSEQK	R	Q	95.00%	2.34	0.261	0	2	0	0	2	1,696.71	4341	4355	TRUE	
SNU216LR_PC1_01	Isoform 2 of Trinucleotide repeat-containing gene	IPI00160265,IPI00395878	210,269.80	99.80%	1	1	1	0.01%	0.88%	QNTAWDTETSPRGER	K	K	95.00%	2.33	0.335	0	1	0	0	2	1,827.77	730	744	TRUE	
SNU216LR_PC1_01	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	100.00%	2	2	2	0.01%	1.22%	NLSDIGWPVFEIPSPR	K	P	95.00%	2.27	0.289	0	1	0	0	2	1,906.91	418	433	TRUE	
SNU216LR_PC1_01	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	100.00%	2	2	2	0.01%	1.22%	NLSDIGWPVFEIPSPRPSK	K	G	95.00%	3.04	0.388	0	0	1	0	2	2,219.09	418	436	TRUE	
SNU216LR_PC1_01	Protein NEDD1	IPI00169345	71,967.20	99.80%	2	2	2	0.01%	7.88%	KNPVTSSTSVLHSSPLNVFMGSPGKEENEN	R	D	95.00%	3.71	0.24	0	0	0	1	2	3,422.60	447	477	TRUE	
SNU216LR_PC1_01	Protein NEDD1	IPI00169345	71,967.20	99.80%	2	2	2	0.01%	7.88%	LVTSGAESGNLNTSPSSNQTR	K	N	95.00%	4.82	0.0425	0	1	0	0	2	2,199.99	503	523	TRUE	
SNU216LR_PC1_01	Isoform 1 of Rab3 GTPase-activating protein non	IPI00554590	155,988.10	99.70%	1	1	1	0.01%	1.01%	ADFSPFGNSQGPSR	K	V	93.00%	2.24	0.187	0	1	0	0	2	1,546.63	447	460	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nance-Horan syndrome protein	IPI00375220,IPI00554497,IP	160,797.50	99.60%	2	2	2	0.01%	2.58%	APSAGLEEVAQPESVDVITSQSDSPTR	K	A	91.70%	5.36	0.0383	0	0	1	0	2	2,850.30	1129	1155	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nance-Horan syndrome protein	IPI00375220,IPI00554497,IP	160,797.50	99.60%	2	2	2	0.01%	2.58%	RVQQEIDSDESPVAR	R	E	95.00%	3.26	0.334	0	1	0	0	2	1,808.82	231	245	TRUE	
SNU216LR_PC1_01	Ras-related protein Rab-3B	IPI00300562	24,758.40	99.80%	1	1	1	0.01%	7.31%	MSDSLDTDPSMLGSSK	K	N	95.00%	3.39	0.564	0	1	0	0	2	1,750.69	187	202	TRUE	
SNU216LR_PC1_01	374 kDa protein	IPI00470478,IPI00642126	373,852.30	99.80%	1	1	1	0.01%	0.49%	DFATPSLHTSDQSPGK	R	H	95.00%	3.11	0.392	0	1	0	0	2	1,767.76	334	349	TRUE	
SNU216LR_PC1_01	SMC5 structural maintenance of chromosomes 5-	IPI00293338,IPI00413265	128,809.80	99.80%	1	1	1	0.01%	2.09%	KNSAPQLPLLQSSGPFVEGSIVR	R	I	95.00%	3.74	0.349	0	0	1	0	2	2,504.29	33	55	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromosome-associated kinesin KIF-	IPI00178150	139,883.80	100.00%	2	2	2	0.01%	2.11%	GQVSESEDSITK	R	Q	92.70%	1.78	0.253	0	1	0	0	2	1,359.57	807	818	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromosome-associated kinesin KIF-	IPI00178150	139,883.80	100.00%	2	2	2	0.01%	2.11%	TPPAPSPFDLPELK	K	H	95.00%	2.28	0.328	0	1	0	0	2	1,588.77	1181	1194	TRUE	
SNU216LR_PC1_01	Membrane-associated guanylate kinase-related 3	IPI00170865	162,950.90	99.60%	2	2	2	0.01%	1.76%	DQSLSPSKGENK	R	S	91.50%	1.9	0.242	0	1	0	0	2	1,449.57	1253	1264	TRUE	
SNU216LR_PC1_01	Membrane-associated guanylate kinase-related 3	IPI00170865	162,950.90	99.60%	2	2	2	0.01%	1.76%	SGSPKLDPSEVYLK	R	S	95.00%	2.87	0.148	0	1	0	0	2	1,599.77	697	710	TRUE	
SNU216LR_PC1_01	developing brain homeobox 1	REVERSE_IPI00027329-R	41,324.90	99.40%	2	2	2	0.01%	10.70%	PPSMSATPVSRPLYAPPR	R	S	95.00%	2.86	0.247	0	1	0	0	2	2,099.94	317	334	TRUE	
SNU216LR_PC1_01	developing brain homeobox 1	REVERSE_IPI00027329-R	41,324.90	99.40%	2	2	2	0.01%	10.70%	SGPGPSGLDSAGTDTLATPAGQRPPSMSAT	R	P	88.40%	3.07	0.197	0	0	1	0	2	3,303.53	294	327	TRUE	
SNU216LR_PC1_01	Podocalyxin-like protein 1 precursor	IPI00299116,IPI00604773	55,595.70	99.80%	1	1	2	0.01%	5.68%	LTEELQTVENGYHDNPTLEVMETSSEMQEK	K	K	95.00%	4.6	0.169	0	0	2	0	2	3,561.53	466	495	TRUE	
SNU216LR_PC1_01	CDNA FLJ44035 fis, clone TESTI4028612	IPI00418991,IPI00742090	185,739.60	99.80%	2	2	2	0.01%	3.57%	NLEHLSSFSSDEDDPGYSQDAYK	K	S	95.00%	3.92	0.414	0	0	1	0	2	2,684.07	1222	1244	TRUE	
SNU216LR_PC1_01	CDNA FLJ44035 fis, clone TESTI4028612	IPI00418991,IPI00742090	185,739.60	99.80%	2	2	2	0.01%	3.57%	QSATNLESEEDSEAPVDSTLNNNR	K	N	95.00%	4.52	0.566	0	1	0	0	2	2,700.13	980	1003	TRUE	
SNU216LR_PC1_01	Centrosome and spindle pole associated protein :	IPI00424603,IPI00444793	101,445.60	99.80%	2	2	2	0.01%	1.39%	VAASGAQDPEKSPDR	R	L	95.00%	3.5	0.389	0	1	0	0	2	1,607.71	119	133	TRUE	
SNU216LR_PC1_01	Centrosome and spindle pole associated protein :	IPI00424603,IPI00444793	101,445.60	99.80%	2	2	2	0.01%	1.39%	VAASGAQDPEKSPDRLK	R	Q	95.00%	2.79	0.16	0	0	1	0	2	1,848.89	119	135	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcriptional-regulating factor 1	IPI00044583	132,255.20	99.60%	2	2	2	0.01%	2.67%	AQPGSPESSGQPK	R	G	93.50%	1.72	0.275	0	1	0	0	2	1,349.57	487	499	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcriptional-regulating factor 1	IPI00044583	132,255.20	99.60%	2	2	2	0.01%	2.67%	DKPASSMSDDEMPVLEIPR	R	K	93.30%	2.31	0.209	0	0	1	0	2	2,196.96	614	632	TRUE	
SNU216LR_PC1_01	Isoform 1 of Citron Rho-interacting kinase	IPI00022465,IPI00719285	236,611.50	100.00%	2	2	2	0.01%	1.23%	RVSEVEAVLSQK	R	E	95.00%	2.88	0.32	0	1	0	0	2	1,424.71	478	489	TRUE	
SNU216LR_PC1_01	Isoform 1 of Citron Rho-interacting kinase	IPI00022465,IPI00719285	236,611.50	100.00%	2	2	2	0.01%	1.23%	SESVVSGLDSPAK	R	T	95.00%	3.21	0.358	0	1	0	0	2	1,355.61	431	443	TRUE	
SNU216LR_PC1_01	Isoform Long of Vacuolar assembly protein VPS4:	REVERSE_IPI00028051-R,RE	92,819.50	99.70%	2	2	2	0.01%	4.80%	CGERLLIQLNYDQLIK	K	V	95.00%	3.81	0.12	0	0	1	0	2	2,056.03	43	58	TRUE	
SNU216LR_PC1_01	Isoform Long of Vacuolar assembly protein VPS4:	REVERSE_IPI00028051-R,RE	92,819.50	99.70%	2	2	2	0.01%	4.80%	DHVTMCSAADKQLIETVGNSLREYK	K	L	94.10%	3.07	0.184	0	0	1	0	2	3,041.31	748	772	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23379	IPI00738216	289,934.40	99.00%	2	3	3	0.02%	1.13%	LRLDTGSPEPETR	R	G	80.00%	2.34	0.136	0	1	0	0	2	1,550.72	2241	2253	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23379	IPI00738216	289,934.40	99.00%	2	3	3	0.02%	1.13%	LSFSPENILIQNQDIVR	R	E	95.00%	4.09	0.403	0	1	1	0	2	2,066.03	1350	1366	TRUE	
SNU216LR_PC1_01	nuclear transcription factor, X-box binding-like 1	IPI00442274	101,334.90	100.00%	3	4	4	0.02%	6.15%	GSVGAVPSGTSPGGVATTAAAGSR	K	H	81.40%	2.35	0.215	0	1	0	0	2	2,094.98	40	63	TRUE	
SNU216LR_PC1_01	nuclear transcription factor, X-box binding-like 1	IPI00442274	101,334.90	100.00%	3	4	4	0.02%	6.15%	HSPAGSQALQTTAASELMSQK	R	K	95.00%	4.43	0.534	0	0	1	0	2	2,223.01	64	84	TRUE	
SNU216LR_PC1_01	nuclear transcription factor, X-box binding-like 1	IPI00442274	101,334.90	100.00%	3	4	4	0.02%	6.15%	KASEIKEAEAK	R	A	95.00%	2.06	0.287	0	1	1	0	2	1,283.62	833	843	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ADIDVSGPKVDVDVPDVNIEGPDAK	K	L	95.00%	3.79	0.507	0	1	1	0	2	2,644.24	1750	1774	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	4.94	0.486	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	AEAPLPSPK	K	L	95.00%	2.01	0.371	0	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	AGLRVSAPEVSVGHK	K	G	95.00%	3.13	0.317	0	0	1	0	2	1,586.81	80	94	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	APDVDVNIAGPDAALKVDVKSPK	K	T	95.00%	7.29	0.515	0	0	1	0	2	2,399.22	2128	2150	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ASLGSLEGEAEAEASSPK	K	G	95.00%	4.67	0.485	0	4	3	0	2	1,812.79	2819	2836	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	4.35	0.442	0	0	2	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	95.00%	4.26	-0.0002	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	FGFGAKSPK	K	A	95.00%	1.98	0.425	0	1	0	0	2	1,018.48	2051	2059	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	FKAEAPLPSPK	K	L	95.00%	2.59	0.291	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	FKAEAPLPSPKLEGELQAPDLELSLPAIHVEG	K	A	95.00%	4.68	0.6	0	0	0	1	2	3,945.07	2173	2208	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GGVTGSPEASISGSK	K	G	95.00%	2.69	0.378	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GGVTGSPEASISGSKGDLK	K	S	83.80%	2.97	0.0906	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GHYEVTGSDDETGK	K	L	95.00%	2.65	0.432	0	1	1	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.03	0.504	0	1	5	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	95.00%	5.22	0.092	0	0	1	1	2	2,730.26	2905	2930	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GKGGVTGSPEASISGSK	K	G	95.00%	4.04	0.14	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.3	0.446	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	GPAFNMASPESDFGINLK	K	G	95.00%	3.13	0.406	0	2	1	0	2	1,974.87	2616	2633	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	IDVTAPDVSIEEPEGK	K	L	95.00%	2.49	0.298	0	1	0	0	2	1,778.81	538	553	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ISAPNVDFNLEGPK	R	V	95.00%	2.65	0.499	0	1	1	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ISIPDVDLDLKGPK	K	V	95.00%	3.08	0.292	0	0	1	0	2	1,589.82	1920	1933	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ISMQDVDLSLGSPK	K	L	95.00%	2.99	0.357	0	2	0	0	2	1,569.72	253	266	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	ISMSEVDLNVAAPK	R	V	95.00%	3.13	0.388	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	MSLPDVDLDLK	K	G	95.00%	2.18	0.216	0	1	0	0	2	1,325.61	820	830	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	MSLPDVDLDLKGPK	K	M	95.00%	2.43	0.332	0	1	0	0	2	1,607.78	820	833	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	MYFPDVEFDIKSPK	K	F	95.00%	3.83	0.317	0	1	1	0	2	1,795.80	2159	2172	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	SKGHYEVTGSDDETGK	K	L	95.00%	3.47	0.48	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.22	0.062	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	SNSFSDER	R	E	95.00%	2.43	0.451	1	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	94.60%	5.29	0.0641	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	VEAPSLDVHMDSPDINIEGPDVK	K	I	95.00%	5.63	0.562	0	0	1	1	2	2,557.15	2020	2042	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	VKTPEMIIQKPK	K	I	95.00%	4.12	0.415	0	1	3	0	2	1,507.80	241	252	TRUE	
SNU216LR_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	34	48	62	0.37%	13.90%	VSVGAPDLSLEASEGSIKLPK	K	M	95.00%	3.23	0.284	0	1	1	0	2	2,177.11	2456	2476	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	99.80%	2	2	2	0.01%	1.47%	LHPDGSPDVAGEK	K	G	95.00%	1.9	0.302	0	1	0	0	2	1,401.60	594	606	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	99.80%	2	2	2	0.01%	1.47%	SVSGSPESDELQELR	R	T	95.00%	2.53	0.252	0	1	0	0	2	1,712.74	834	848	TRUE	
SNU216LR_PC1_01	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.66%	SSEGGVGVGPGGGDEPPTSPR	K	Q	95.00%	3.88	0.517	0	1	0	0	2	1,975.84	1187	1207	TRUE	
SNU216LR_PC1_01	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.66%	TASEGDGGAAAGAAAAGAR	R	P	95.00%	4.36	0.6	0	1	0	0	2	1,611.68	365	383	TRUE	
SNU216LR_PC1_01	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.66%	TYSLTTPAR	R	Q	95.00%	2.3	0.433	0	1	0	0	2	1,089.50	577	585	TRUE	
SNU216LR_PC1_01	Breast cancer type 1 susceptibility protein	IPI00027272,IPI00027273,IP	207,720.30	99.80%	2	2	2	0.01%	2.25%	GELSRSPSPFTHTHLAQGYR	K	R	95.00%	3.16	0.352	0	0	1	0	2	2,481.02	1184	1203	TRUE	
SNU216LR_PC1_01	Breast cancer type 1 susceptibility protein	IPI00027272,IPI00027273,IP	207,720.30	99.80%	2	2	2	0.01%	2.25%	KENNSPEHLKDEVSIIQSMGYR	K	N	95.00%	2.77	0.2	0	0	0	1	2	2,654.23	110	131	TRUE	
SNU216LR_PC1_01	E14 protein	IPI00290547	154,433.90	99.30%	2	2	2	0.01%	1.75%	KAHASLMSPGR	K	R	95.00%	2.39	0.31	0	0	1	0	2	1,234.58	200	210	TRUE	
SNU216LR_PC1_01	E14 protein	IPI00290547	154,433.90	99.30%	2	2	2	0.01%	1.75%	KVSPTEIVLESFHK	K	A	86.80%	2.84	0.131	0	0	1	0	2	1,693.86	1149	1162	TRUE	
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	AGTPIRDSHSPDLQLPTPEVIPSSGSK	K	L	95.00%	4.53	0.409	0	0	1	0	2	2,866.40	310	336	TRUE	
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	DSHSPDLQLPTPEVIPSSGSK	R	L	95.00%	3.55	0.42	0	0	1	0	2	2,271.05	316	336	TRUE	
SNU216LR_PC1_01	RING finger protein 139	IPI00289584	75,996.40	99.80%	2	2	2	0.01%	3.16%	ERNGVIQHTGAAAEEFNDDTD	R	-	95.00%	3.13	0.255	0	0	1	0	2	2,368.97	644	664	TRUE	
SNU216LR_PC1_01	RING finger protein 139	IPI00289584	75,996.40	99.80%	2	2	2	0.01%	3.16%	NGVIQHTGAAAEEFNDDTD	R	-	95.00%	3.56	0.455	0	1	0	0	2	2,083.82	646	664	TRUE	
SNU216LR_PC1_01	CDNA FLJ40166 fis, clone TESTI2016197	IPI00030790,IPI00297877	56,309.10	99.80%	2	2	2	0.01%	6.92%	SSPGPDTLVVLEFNPASK	R	S	95.00%	3.42	0.445	0	1	0	0	2	1,937.93	160	177	TRUE	
SNU216LR_PC1_01	CDNA FLJ40166 fis, clone TESTI2016197	IPI00030790,IPI00297877	56,309.10	99.80%	2	2	2	0.01%	6.92%	VVSPTKEQVSDTEDKQR	R	M	95.00%	4.42	0.386	0	0	1	0	2	2,025.95	359	375	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	AAFGISDSYVDGSSFDPQR	K	R	95.00%	3.2	0.376	0	1	0	0	2	2,098.88	137	155	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	AGMSSNQSISSPVLDAVPR	K	T	95.00%	3.38	0.472	0	3	0	0	2	1,995.92	1394	1412	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	AGMSSNQSISSPVLDAVPRTPSR	K	E	95.00%	3.97	0.363	0	1	2	0	2	2,437.15	1394	1416	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	AGMSSNQSISSPVLDAVPRTPSRER	K	S	95.00%	4.02	0.254	0	0	2	0	2	2,882.23	1394	1418	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	DGLPRTPSRR	K	S	95.00%	2.18	0.225	0	0	1	0	2	1,234.61	1429	1438	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	DKFSPFPVQDRPESSLVFK	K	D	95.00%	4.01	0.323	0	0	1	0	2	2,303.11	1185	1203	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	DRSPPKSPEK	R	L	95.00%	2.94	0.296	0	0	1	0	2	1,220.57	402	411	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.33	0.252	0	1	3	0	2	2,259.04	1316	1334	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	ENSFGSPLEFR	R	N	95.00%	2.89	0.359	0	1	0	0	2	1,362.57	1324	1334	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	EQNSALPTSSQDEELMEVVEK	K	S	95.00%	4.78	0.512	0	1	1	0	2	2,443.06	1224	1244	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	EQNSALPTSSQDEELMEVVEKSEEPAGQILS	K	E	87.60%	5.76	0.0135	0	0	1	0	2	4,248.97	1224	1261	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	4.7	0.0191	0	2	0	0	2	2,715.18	304	329	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	GPSPEGSSSTESSPEHPPK	K	S	95.00%	3.15	0.175	0	1	0	0	2	1,973.81	1646	1664	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	GQSQTSPDHR	K	S	95.00%	2.08	0.282	0	1	0	0	2	1,192.47	1059	1068	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.68	0.451	0	3	4	1	2	1,976.90	433	451	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.35	0.417	0	0	3	1	2	2,932.38	374	401	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	HSLSGSSPGMK	R	D	95.00%	2.17	0.277	0	1	0	0	2	1,167.49	1457	1467	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	HSLSGSSPGMKDIPR	R	T	95.00%	2.79	0.219	0	0	1	0	2	1,648.75	1457	1471	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	LPQSSSSESSPPSPQPTK	K	V	93.10%	2.87	0.111	0	1	0	0	2	1,920.86	412	429	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	MALPPQEDATASPPR	K	Q	95.00%	3.68	0.418	0	5	3	0	2	1,660.74	1168	1182	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	MGQAPSQSLLPPAQDQPRSPVPSAFSDQSI	R	C	95.00%	3.94	0.312	0	0	1	0	2	3,275.52	2431	2460	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	NHSGSRTPPVALNSSR	R	M	95.00%	2.22	0.312	0	1	0	0	2	1,759.82	2098	2113	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	PASPKKPPPGER	K	R	95.00%	2.5	0.311	0	0	1	0	2	1,340.67	2662	2673	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	QGSITSPQANEQSVTPQR	R	R	95.00%	2.86	0.443	0	1	0	0	2	2,007.91	852	869	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	QGSITSPQANEQSVTPQRR	R	S	95.00%	2.72	0.24	0	0	1	0	2	2,164.01	852	870	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	QPSSPYEDKDK	K	D	95.00%	2.55	0.265	0	1	0	0	2	1,373.56	330	340	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	QPSSPYEDKDKDK	K	K	95.00%	3.42	0.43	0	1	1	0	2	1,616.68	330	342	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	QSHSESPSLQSK	R	S	95.00%	2.87	0.321	0	1	0	0	2	1,394.59	1078	1089	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	RPSPQPSPR	R	D	93.50%	1.95	0.239	0	1	0	0	2	1,101.52	2700	2708	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	RSPSVSSPEPAEK	R	S	95.00%	2.95	0.152	0	2	0	0	2	1,450.66	1726	1738	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	RVPSPTPAPK	K	E	95.00%	2.11	0.257	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	SATRPSPSPER	K	S	95.00%	2.62	0.258	0	0	2	0	2	1,264.57	346	356	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	SGSSQELDVKPSASPQER	R	S	95.00%	3.88	0.431	0	4	2	0	2	1,981.89	1539	1556	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	SLSYSPVER	R	R	95.00%	1.91	0.268	0	3	0	0	2	1,117.49	2690	2698	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	SRASPVSR	R	R	95.00%	2.02	0.277	0	1	0	0	2	939.4407	1913	1920	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	SRSPSSPELNNK	R	C	95.00%	2.41	0.298	0	1	0	0	2	1,395.63	1497	1508	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	SSGHSSSELSPDAVEK	R	A	95.00%	4.26	0.0013	0	1	0	0	2	1,696.71	1378	1393	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	SSSPVTELASR	R	S	95.00%	1.91	0.423	1	1	0	0	2	1,293.51	1101	1111	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	TAAALAPASLTSAR	R	M	95.00%	2.8	0.223	0	1	0	0	2	1,380.69	2357	2370	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	THTTALAGRSPSPASGR	K	R	95.00%	3.21	0.337	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	TPAAAAAMNLASPR	R	T	95.00%	4.08	0.552	0	1	0	0	2	1,421.66	2261	2274	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	TPPVALNSSR	R	M	95.00%	2.08	0.301	0	1	0	0	2	1,121.54	2104	2113	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	VKPETPPRQSHSGSISPYPK	K	V	80.20%	2.71	0.177	0	0	1	0	2	2,272.11	979	998	TRUE	
SNU216LR_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	44	54	82	0.49%	20.90%	VPSPTPAPK	R	E	86.80%	1.39	0.336	1	0	0	0	2	973.4756	2579	2587	TRUE	
SNU216LR_PC1_01	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.17%	QIDSSEEDDDEEDYDNDKR	R	S	95.00%	3.62	0.586	0	1	0	0	2	2,476.82	212	230	TRUE	
SNU216LR_PC1_01	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.17%	RQIDSSEEDDDEEDYDNDKR	K	S	95.00%	4.22	0.592	0	0	1	0	2	2,632.92	211	230	TRUE	
SNU216LR_PC1_01	MOP-3	IPI00023649	154,161.30	99.80%	2	2	2	0.01%	1.51%	KKSIDPDSIQSALLASGLGSK	K	R	95.00%	4.3	0.51	0	0	1	0	2	2,195.13	791	811	TRUE	
SNU216LR_PC1_01	MOP-3	IPI00023649	154,161.30	99.80%	2	2	2	0.01%	1.51%	SIDPDSIQSALLASGLGSK	K	R	95.00%	3.46	0.459	0	1	0	0	2	1,938.94	793	811	TRUE	
SNU216LR_PC1_01	CRSP complex subunit 2	IPI00297191	160,666.50	98.90%	1	1	1	0.01%	1.24%	AGNWPGSPQVSGPSPAAR	R	M	95.00%	2.07	0.294	0	1	0	0	2	1,815.82	1106	1123	TRUE	
SNU216LR_PC1_01	Isoform 1 of Homeobox protein cut-like 1	IPI00026673,IPI00419894,IP	161,737.50	98.90%	1	1	1	0.01%	0.86%	QVKNEVGRSGAWK	R	D	95.00%	3	0.214	0	1	0	0	2	1,538.75	787	799	TRUE	
SNU216LR_PC1_01	CDNA FLJ16420 fis, clone BRACE3003053. (Fragm	IPI00442150	155,044.50	100.00%	2	2	2	0.01%	3.53%	ARESSDSEEEYKK	R	T	94.80%	1.88	0.282	0	1	0	0	2	1,797.60	455	467	TRUE	
SNU216LR_PC1_01	CDNA FLJ16420 fis, clone BRACE3003053. (Fragm	IPI00442150	155,044.50	100.00%	2	2	2	0.01%	3.53%	KSESPFRETEPLVSPHQDK	K	L	95.00%	3.13	0.211	0	0	1	0	2	2,291.07	741	759	FALSE	IPI00307733
SNU216LR_PC1_01	CDNA FLJ16420 fis, clone BRACE3003053. (Fragm	IPI00442150	155,044.50	100.00%	2	2	2	0.01%	3.53%	MEIGDTLSTAEESSPPK	K	S	95.00%	3.74	0.461	0	1	0	0	2	1,871.80	118	134	TRUE	
SNU216LR_PC1_01	CDNA FLJ16420 fis, clone BRACE3003053. (Fragm	IPI00442150	155,044.50	100.00%	2	2	2	0.01%	3.53%	SESPFRETEPLVSPHQDK	K	L	95.00%	2.94	0.201	0	0	1	0	2	2,162.98	742	759	FALSE	IPI00307733
SNU216LR_PC1_01	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	2	2	0.01%	1.16%	LSEAVWQPEEHYSSSPEK	K	I	95.00%	3.44	0.272	0	0	1	0	2	2,182.93	904	921	TRUE	
SNU216LR_PC1_01	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	2	2	0.01%	1.16%	WDSDNDEENEDVPISMK	K	E	95.00%	3.47	0.499	0	1	0	0	2	2,102.79	1968	1984	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ribonuclease III	IPI00300956	159,319.80	99.10%	1	1	1	0.01%	1.38%	NTDSWAPPLEIVNHRSPSR	K	E	83.00%	2.54	0.209	0	0	1	0	2	2,256.06	340	358	TRUE	
SNU216LR_PC1_01	215 kDa protein	IPI00470901,IPI00746684	215,345.50	99.80%	2	2	2	0.01%	1.93%	SKPYEGSQRNSTELAPPLPVR	K	R	95.00%	3.53	0.354	0	0	1	0	2	2,406.18	1824	1844	TRUE	
SNU216LR_PC1_01	215 kDa protein	IPI00470901,IPI00746684	215,345.50	99.80%	2	2	2	0.01%	1.93%	TGSIVLPYIMSSTLR	R	R	89.50%	2.23	0.206	0	1	0	0	2	1,717.86	1654	1668	TRUE	
SNU216LR_PC1_01	Zinc finger protein 40	IPI00013444	297,216.50	99.40%	2	2	2	0.01%	1.44%	AHSEVFTKPSGQQTLSPDR	K	Q	95.00%	3.27	0.329	0	0	1	0	2	2,165.00	2666	2684	TRUE	
SNU216LR_PC1_01	Zinc finger protein 40	IPI00013444	297,216.50	99.40%	2	2	2	0.01%	1.44%	SSFTPSSPENVIGDFLLQDR	K	S	87.50%	3.69	0.0015	0	1	0	0	2	2,289.04	531	550	TRUE	
SNU216LR_PC1_01	Isoform 1 of Regulator of nonsense transcripts 1	IPI00034049,IPI00399170	124,346.90	100.00%	1	1	1	0.01%	1.51%	SQIDVALSQDSTYQGER	K	A	95.00%	2.88	0.25	0	1	0	0	2	1,976.86	1100	1116	TRUE	
SNU216LR_PC1_01	AP2 associated kinase 1	IPI00479760	93,577.60	99.80%	1	1	1	0.01%	1.51%	VQTTPPPAVQGQK	K	V	95.00%	2.52	0.207	0	1	0	0	2	1,430.70	603	615	TRUE	
SNU216LR_PC1_01	Isoform 2 of Kinesin-like protein KIF13A	IPI00164861,IPI00218490,IP	197,084.90	99.80%	1	1	1	0.01%	1.19%	PLLSQEDSEEEENELEAINRK	R	L	95.00%	3.11	0.33	0	0	1	0	2	2,552.14	1474	1494	TRUE	
SNU216LR_PC1_01	DEAH (Asp-Glu-Ala-His) box polypeptide 29	IPI00217413	155,240.20	100.00%	1	1	1	0.01%	1.24%	FQSPQIQATISPPLQPK	K	T	95.00%	2.83	0.348	0	1	0	0	2	1,959.99	190	206	TRUE	
SNU216LR_PC1_01	cytoplasmic FMR1 interacting protein 1 isoform b	IPI00550212,IPI00644231	145,186.70	99.40%	1	1	1	0.01%	1.95%	TLRSSLEGPTILDIEK	K	F	95.00%	2.46	0.239	0	0	1	0	2	1,851.95	579	594	TRUE	
SNU216LR_PC1_01	Isoform III of AT-rich interactive domain-containir	IPI00218648	134,869.80	99.80%	1	1	1	0.01%	0.93%	KILGQSSPEKK	R	I	95.00%	3.01	0.245	0	1	0	0	2	1,294.68	858	868	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	AFGPGLQGGSAGSPAR	K	F	86.40%	2.27	0.159	0	1	0	0	2	1,509.68	1071	1086	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	EGPYSISVLYGDEEVPRSPFK	R	V	95.00%	4.02	0.47	0	1	1	0	2	2,449.13	1515	1535	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	4.7	0.421	0	1	1	0	2	2,547.16	2310	2332	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	FNEEHIPDSPFVVPVASPSGDARR	K	L	95.00%	3.79	0.238	0	0	1	0	2	2,703.26	2310	2333	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	GAGSYTIMVLFADQATPTSPIR	R	V	95.00%	4.12	0.464	0	1	1	0	2	2,376.13	841	862	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	IPEISIQDMTAQVTSPSGK	K	T	95.00%	5.68	0.447	0	1	0	0	2	2,081.98	2165	2183	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	RLTVSSLQESGLK	R	V	93.10%	2.2	0.215	0	0	1	0	2	1,497.77	2333	2345	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	SPFSVAVSPSLDLSK	K	I	95.00%	3.29	0.0801	0	1	0	0	2	1,613.78	958	972	TRUE	
SNU216LR_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	9	12	12	0.07%	5.42%	YAPSEAGLHEMDIR	R	Y	95.00%	2.12	0.233	0	1	0	0	2	1,668.71	1831	1844	TRUE	
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.9	0.273	0	0	2	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	AQLEPVASPAK	K	K	95.00%	2.41	0.314	1	1	0	0	2	1,190.58	1428	1438	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	AQLEPVASPAKKPK	K	V	95.00%	3.07	0.312	0	0	1	0	2	1,543.82	1428	1441	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	ARSDEGQLSPATR	R	G	95.00%	2.92	0.239	0	0	1	0	2	1,467.66	712	724	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	GYYSPYSVSGSGSTAGSR	K	T	94.20%	3.78	0.0248	0	2	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	5.49	0.173	0	1	0	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	SDEGQLSPATR	R	G	95.00%	2.25	0.305	0	1	0	0	2	1,240.52	714	724	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	9	12	0.07%	2.41%	SSSVGSSSSYPISPAVSR	R	T	95.00%	3.28	0.378	0	2	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	3.87	0.365	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	4.45	0.28	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.51	0.378	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC1_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.80%	2	3	3	0.02%	4.40%	GISPIVFDR	R	S	95.00%	1.74	0.271	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216LR_PC1_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.80%	2	3	3	0.02%	4.40%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	3.99	0.354	0	0	1	1	2	2,465.14	415	437	TRUE	
SNU216LR_PC1_01	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.76	0.411	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC1_01	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	2.99	0.268	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC1_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	99.80%	2	2	2	0.01%	11.20%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.62	0.363	0	0	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC1_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	99.80%	2	2	2	0.01%	11.20%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.6	0.212	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC1_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVK	K	R	95.00%	2.47	0.231	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216LR_PC1_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVKR	K	K	95.00%	2.69	0.377	0	1	0	0	2	1,591.76	672	686	TRUE	
SNU216LR_PC1_01	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	5	6	0.04%	6.77%	GSEDSPPKHAGNNESHSSR	K	R	95.00%	4.19	0.308	0	1	1	1	2	2,072.84	438	456	TRUE	
SNU216LR_PC1_01	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	5	6	0.04%	6.77%	GTKGSEDSPPKHAGNNESHSSR	K	R	95.00%	2.63	0.366	0	0	0	2	2	2,359.01	435	456	TRUE	
SNU216LR_PC1_01	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	5	6	0.04%	6.77%	TLSKDDVNYK	R	M	82.40%	1.71	0.218	0	1	0	0	2	1,262.57	9	18	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	6	7	8	0.05%	3.93%	GPKPEPPGSGSPAPPR	R	R	95.00%	3.12	0.411	0	1	1	0	2	1,607.76	730	745	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	6	7	8	0.05%	3.93%	GPKPEPPGSGSPAPPRR	R	R	95.00%	3.1	0.379	0	0	1	0	2	1,763.86	730	746	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	6	7	8	0.05%	3.93%	KPSVSEEVQATPNK	R	A	95.00%	4.54	0.594	0	2	0	0	2	1,593.75	1105	1118	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	6	7	8	0.05%	3.93%	KRSWGHESPEER	R	H	95.00%	2.6	0.318	0	0	1	0	2	1,577.69	1007	1018	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	6	7	8	0.05%	3.93%	QEPGGSHGSETEDTGR	K	S	95.00%	3.04	0.482	0	1	0	0	2	1,723.66	645	660	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	6	7	8	0.05%	3.93%	SWGHESPEER	R	H	95.00%	2.02	0.273	0	1	0	0	2	1,293.49	1009	1018	TRUE	
SNU216LR_PC1_01	golgi phosphoprotein 4	IPI00004962	81,877.50	99.90%	1	1	1	0.01%	4.31%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	5.02	0.564	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	99.90%	1	1	1	0.01%	2.91%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	3.83	0.389	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216LR_PC1_01	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	3	0.02%	2.84%	YSPTSPTYSPTSPVYTPTSPK	K	Y	95.00%	4.6	0	0	1	0	0	2	2,338.05	1890	1910	TRUE	
SNU216LR_PC1_01	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	3	0.02%	2.84%	YSPTSPTYSPTTPK	K	Y	95.00%	3.04	0.403	0	1	0	0	2	1,606.70	1876	1889	TRUE	
SNU216LR_PC1_01	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	3	0.02%	2.84%	YTPTSPSYSPSSPEYTPTSPK	K	Y	95.00%	4.27	0.0563	0	1	0	0	2	2,354.01	1841	1861	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	9	0.05%	7.26%	DSAAPSPIPGADNLSADPVVSPPTSIPFK	R	S	95.00%	3	0.259	0	0	1	0	2	2,927.41	424	452	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	9	0.05%	7.26%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	R	95.00%	4.07	0.318	0	0	1	1	2	3,690.75	1093	1125	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	9	0.05%	7.26%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	K	95.00%	3.34	0.181	0	0	0	1	2	3,846.85	1093	1126	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	9	0.05%	7.26%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.57	0.525	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	9	0.05%	7.26%	SSLSGDEEDELFK	R	G	95.00%	2.8	0.424	0	3	0	0	2	1,535.62	1279	1291	TRUE	
SNU216LR_PC1_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	10	0.06%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	3.4	0.38	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216LR_PC1_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	10	0.06%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	4.83	0.439	0	1	3	4	2	2,333.13	446	466	TRUE	
SNU216LR_PC1_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	10	0.06%	10.20%	SQEMVHLVNK	K	E	95.00%	2.34	0.182	0	1	0	0	2	1,264.58	457	466	TRUE	
SNU216LR_PC1_01	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	99.80%	1	1	1	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	6.69	0.539	0	0	1	0	2	3,106.31	797	824	TRUE	
SNU216LR_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	9	11	0.07%	16.40%	DLDEEGSEKELHENVLDK	K	E	95.00%	3.12	0.207	0	0	2	0	2	2,178.94	573	590	TRUE	
SNU216LR_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	9	11	0.07%	16.40%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.86	0.435	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	9	11	0.07%	16.40%	ELHENVLDKELEENDSENSEFEDDGSEK	K	V	95.00%	3.35	0.363	0	0	1	0	2	3,439.33	582	609	TRUE	
SNU216LR_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	9	11	0.07%	16.40%	ESEDDLNKESEEEVGPTK	K	E	95.00%	2.63	0.263	0	1	0	0	2	2,114.87	520	537	TRUE	
SNU216LR_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	9	11	0.07%	16.40%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.83	0.483	0	0	2	0	2	2,837.11	672	695	TRUE	
SNU216LR_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	9	11	0.07%	16.40%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.77	0.406	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	9	11	0.07%	16.40%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	4.06	0.26	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC1_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	3	4	0.02%	5.82%	EPTPSIASDISLPIATQELR	K	Q	95.00%	3.29	0.416	0	1	1	0	2	2,218.10	723	742	TRUE	
SNU216LR_PC1_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	3	4	0.02%	5.82%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	5.29	0.0599	0	0	2	0	2	3,133.36	660	691	TRUE	
SNU216LR_PC1_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTK	R	R	95.00%	4.93	0.434	0	0	1	0	2	2,616.12	1181	1203	TRUE	
SNU216LR_PC1_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	4.44	0.401	0	0	1	1	2	2,772.23	1181	1204	TRUE	
SNU216LR_PC1_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	SSIHNFMTHPEFR	R	I	95.00%	3.14	0.294	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216LR_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	6	0.04%	7.51%	HSQPSPEPHSPTEPPAWGSSIVK	K	V	95.00%	4.12	0.383	0	0	1	0	2	2,532.16	728	750	TRUE	
SNU216LR_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	6	0.04%	7.51%	KSSTGSISNVLFSTQDPVEDAVFGEATNLKK	R	N	95.00%	7.13	0.0032	0	0	1	0	2	3,349.62	762	792	TRUE	
SNU216LR_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	6	0.04%	7.51%	NLADEIESYMNLKSPLGSK	R	S	95.00%	3.12	0.479	0	1	1	0	2	2,189.02	995	1013	TRUE	
SNU216LR_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	6	0.04%	7.51%	RSSLPLDHGSPAQENPESEK	R	S	95.00%	3.72	0.319	0	0	1	0	2	2,258.01	1040	1059	TRUE	
SNU216LR_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	6	0.04%	7.51%	SSPVPEMLEESQELLEPVVDDVPK	R	T	95.00%	4.53	0.516	0	1	0	0	2	2,746.28	889	912	TRUE	
SNU216LR_PC1_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.89	0.544	0	1	1	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC1_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	SSSPAPEFLASSPPDNK	K	S	95.00%	3.21	0.285	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216LR_PC1_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	SSSPAPEFLASSPPDNKSPDEATAADQESED	K	T	95.00%	6.64	0.0542	0	0	1	0	2	3,885.65	861	897	TRUE	
SNU216LR_PC1_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	VSAGEPGSHPSPAPR	K	R	95.00%	3.95	0.524	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	KNSLISSLEEEVSILNR	R	Q	95.00%	4.85	0.467	0	2	2	0	2	2,011.01	1223	1239	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	3.58	0.387	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	LPPKVESLESLYFTPIPAR	R	S	95.00%	3.32	0.401	0	0	2	0	2	2,237.16	1763	1781	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	NSLISSLEEEVSILNR	K	Q	95.00%	3.49	0.507	0	1	0	0	2	1,882.92	1224	1239	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	RVSLEPHQGPGTPESK	K	K	95.00%	3.23	0.35	0	0	1	0	2	1,798.85	1989	2004	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.47	0.52	0	2	1	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	VSLEPHQGPGTPESK	R	K	95.00%	3.27	0.418	0	1	0	0	2	1,642.75	1990	2004	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	8	10	14	0.08%	4.47%	VSLEPHQGPGTPESKK	R	A	95.00%	3.23	0.306	0	0	1	0	2	1,770.84	1990	2005	TRUE	
SNU216LR_PC1_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	2	3	4	0.02%	2.23%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.76	0.123	0	1	0	0	2	2,020.86	302	320	TRUE	
SNU216LR_PC1_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	2	3	4	0.02%	2.23%	SSLGQSASETEEDTVSVSKK	R	E	95.00%	3.43	0.0917	0	2	1	0	2	2,148.95	302	321	TRUE	
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.9	0.273	0	0	2	0	2	2,438.12	4224	4246	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	AQLEPVASPAK	K	K	95.00%	2.41	0.314	1	1	0	0	2	1,190.58	1291	1301	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	AQLEPVASPAKKPK	K	V	95.00%	3.07	0.312	0	0	1	0	2	1,543.82	1291	1304	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	ARSDEGQLSPATR	R	G	95.00%	2.92	0.239	0	0	1	0	2	1,467.66	575	587	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	GYYSPYSVSGSGSTAGSR	K	T	94.20%	3.78	0.0248	0	2	0	0	2	1,862.76	4473	4490	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	KRTSSEDNLYLAVLR	R	A	95.00%	3.14	0.313	0	0	2	0	2	1,844.93	17	31	TRUE	
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	5.49	0.173	0	1	0	0	2	2,853.15	4503	4529	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	RTSSEDNLYLAVLR	R	A	95.00%	3.06	0.417	0	0	1	0	2	1,716.83	18	31	TRUE	
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	SDEGQLSPATR	R	G	95.00%	2.25	0.305	0	1	0	0	2	1,240.52	577	587	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	SSSVGSSSSYPISPAVSR	R	T	95.00%	3.28	0.378	0	2	0	0	2	1,834.82	4247	4264	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.82%	TSSEDNLYLAVLR	R	A	95.00%	3.16	0.384	0	2	0	0	2	1,560.73	19	31	TRUE	
SNU216LR_PC1_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	4.19%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.53	0.447	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216LR_PC1_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	4.19%	GLWSTDSAEEDKETK	R	R	95.00%	2.74	0.222	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216LR_PC1_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	4.19%	GLWSTDSAEEDKETKR	R	N	95.00%	2.64	0.27	0	0	1	0	2	1,931.84	397	412	TRUE	
SNU216LR_PC1_01	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	LKTEKEPDATPPSPR	K	T	95.00%	2.83	0.171	0	0	1	0	2	1,745.85	329	343	TRUE	
SNU216LR_PC1_01	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	NAPAAVDEGSISPR	R	T	95.00%	3.45	0.497	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.80%	2	3	3	0.02%	2.34%	LSGEHSESSTPRPR	K	S	92.40%	1.86	0.228	0	0	1	0	2	1,619.72	1315	1328	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.80%	2	3	3	0.02%	2.34%	SLDSEPSVPSAAKPPSPEK	K	T	95.00%	3.99	0.444	0	1	1	0	2	2,002.94	357	375	TRUE	
SNU216LR_PC1_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	3.98	0.278	0	0	1	0	2	2,141.98	652	670	TRUE	
SNU216LR_PC1_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	5.41	0.394	0	1	1	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC1_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	4	0.02%	7.71%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	5.13	0.52	0	0	1	1	2	3,538.48	736	766	TRUE	
SNU216LR_PC1_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	4	0.02%	7.71%	SHILEDDENSVDISMLK	R	T	95.00%	4.39	0.501	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216LR_PC1_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	4	0.02%	7.71%	TGSSLLKEEEEDGQEGSIHNLPLVTSQRPFYI	K	Q	95.00%	3.35	0.17	0	0	0	1	2	4,392.05	268	306	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	AGSSTPGDAPPAVAEVQGR	R	S	95.00%	3.47	0.577	0	3	0	0	2	1,846.83	2876	2894	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	DGGSGNSTIIVSR	R	S	95.00%	2.89	0.39	0	2	0	0	2	1,342.60	2350	2362	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	DLSMSEEDQMMR	R	A	95.00%	2.61	0.393	0	1	0	0	2	1,551.55	1357	1368	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	ESQLAHIKDEPPPLSPAPLTPATPSSLDPFFSF	R	E	95.00%	5.55	0.286	0	0	1	0	2	3,622.78	3896	3928	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	GSGTASDDEFENLR	R	I	95.00%	2.98	0.446	0	2	0	0	2	1,577.61	1893	1906	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	GSKSPAKVSDGGSSSTDFK	K	M	91.00%	2.35	0.221	0	0	1	0	2	1,921.85	3543	3561	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	LLGPSAAADILQLSSSLPLQSR	R	G	95.00%	3.42	0.346	0	0	1	0	2	2,317.22	2571	2592	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	4.78	0.436	0	0	3	0	2	3,383.42	3796	3826	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	RRSSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.07	0.349	0	0	1	0	2	2,527.16	646	668	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	RSSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.48	0.484	0	1	1	0	2	2,371.06	647	668	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	SDGSGESAQPPEDSSPPASSESSSTR	R	D	95.00%	4.26	0.0304	0	1	1	0	2	2,616.02	2895	2920	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	SGEDESQEDVLMDEAPSNLSQASTLQANR	R	E	89.10%	5.35	0.0312	0	0	1	0	2	3,201.35	2363	2391	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	SHHAASTTTAPTPAAR	R	S	95.00%	3.03	0.436	0	1	0	0	2	1,656.75	1075	1090	TRUE	
SNU216LR_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	14	17	23	0.14%	5.90%	SSDPLGDTASNLGSAVDELMR	R	H	95.00%	5.48	0.544	0	1	1	0	2	2,214.96	648	668	TRUE	
SNU216LR_PC1_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RDSLTGSSDLYK	R	R	95.00%	2.96	0.298	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216LR_PC1_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RDSLTGSSDLYKR	R	T	95.00%	3.96	0.515	0	1	1	0	2	1,577.73	708	720	TRUE	
SNU216LR_PC1_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	4.21	0.399	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	ERSPALKSPLQSVVVR	R	R	95.00%	3.48	0.411	0	1	2	0	2	1,925.96	246	261	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	FSGEEGEIEDDESGTENR	K	E	95.00%	2.75	0.376	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	HGLAHDEMKSPR	K	E	95.00%	2.69	0.298	0	1	1	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	HGLAHDEMKSPREPGYK	K	A	95.00%	2.84	0.207	0	0	0	1	2	2,031.91	689	705	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	IDISPSTFR	R	K	95.00%	2.11	0.266	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	SPALKSPLQSVVVR	R	R	95.00%	2.86	0.375	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	SPSELFAQHIVTIVHHVK	R	E	95.00%	3.22	0.271	0	0	1	1	2	2,122.08	622	639	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.14	0.374	0	1	1	0	2	1,931.87	315	333	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	TDSEKPFRGSQSPK	K	R	95.00%	2.53	0.333	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	4.08	0.367	0	0	2	0	2	2,717.06	922	944	TRUE	
SNU216LR_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	11	15	17	0.10%	12.50%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	4.01	0.343	0	0	0	1	2	3,103.24	922	947	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	AASPSPQSVR	K	R	95.00%	1.62	0.373	1	0	0	0	2	1,159.45	745	754	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	APQTSSSPPPVR	R	R	95.00%	2.52	0.381	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	APQTSSSPPPVRR	R	G	95.00%	2.02	0.33	0	1	0	0	2	1,459.71	699	711	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	EKTPELPEPSVK	K	V	95.00%	2.58	0.339	0	2	0	0	2	1,433.69	218	229	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	HRPSPPATPPPK	R	T	95.00%	2.82	0.386	0	3	2	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	KAASPSPQSVR	K	R	85.70%	2.05	0.203	0	2	0	0	2	1,287.55	744	754	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	KEKTPELPEPSVK	K	V	95.00%	3.82	0.285	0	1	2	0	2	1,561.79	217	229	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	KETESEAEDNLDDLEK	K	H	95.00%	4.78	0.465	0	2	3	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.99	0.486	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	5.85	0.482	0	0	4	1	2	2,791.42	772	797	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	KVELSESEEDKGGK	R	M	95.00%	2.64	0.207	0	1	1	0	2	1,694.69	454	467	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	RESPSPAPKPR	K	K	95.00%	3.07	0.369	0	1	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	RQSPSPSTRPIR	R	R	85.50%	1.91	0.199	0	1	0	0	2	1,541.70	720	731	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	RRTPTPPPR	R	R	91.50%	1.66	0.315	0	1	0	0	2	1,237.56	579	587	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	RVSHSPPPKQR	R	S	94.40%	2.03	0.236	0	0	1	0	2	1,448.66	643	653	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	SPSPAPPPR	R	R	95.00%	2.2	0.239	0	1	0	0	2	985.4504	569	577	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	SVSGSPEPAAK	R	K	95.00%	2.25	0.358	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	TASPPPPPK	R	R	95.00%	1.88	0.445	1	1	0	0	2	1,051.43	623	631	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	TRHSPTPQQSNR	K	T	95.00%	2.72	0.31	0	0	1	0	2	1,488.67	406	417	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.48	0.492	0	1	2	1	2	1,977.99	247	263	TRUE	
SNU216LR_PC1_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	21	30	43	0.26%	23.30%	WQSPVTK	R	S	95.00%	1.51	0.258	1	0	0	0	2	925.418	545	551	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	10	0.06%	15.50%	IPGGNIYISPLKSPYK	R	I	95.00%	3.2	0.527	0	1	0	0	2	1,826.95	799	814	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	10	0.06%	15.50%	ISEGLPTPTKMTPR	K	S	95.00%	2.94	0.354	0	1	2	0	2	1,607.79	815	828	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	10	0.06%	15.50%	KSNLDEEVNVIPPHTPVR	R	T	95.00%	4.17	0.375	0	0	1	0	2	2,124.05	359	376	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	10	0.06%	15.50%	KTAATAAAAAAEPPAPPPPPPPEEDPEQDS(	R	L	95.00%	8.17	0.633	0	0	1	1	2	3,976.89	8	46	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	10	0.06%	15.50%	LFLDHDKTLQTDSIDSFETQRTPR	R	K	95.00%	4.32	0.116	0	0	0	1	2	2,943.39	335	358	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	10	0.06%	15.50%	SPYKFPSSPLR	R	I	90.10%	1.95	0.237	0	1	0	0	2	1,358.65	788	798	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	10	0.06%	15.50%	TNILQYASTRPPTLSPIPHIPR	K	S	95.00%	3.82	0.289	0	0	1	0	2	2,552.34	766	787	TRUE	
SNU216LR_PC1_01	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.79%	GRSPRSPSGHPHVR	R	R	95.00%	3.47	0.422	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC1_01	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.79%	IASDEEIQGTK	R	D	95.00%	2.23	0.386	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC1_01	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.79%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	2.56	0.369	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC1_01	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.79%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	4.57	0.593	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC1_01	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.79%	SRSRDSGDENEPIQER	R	F	95.00%	2.4	0.362	0	1	0	0	2	2,114.76	892	907	TRUE	
SNU216LR_PC1_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.37%	GDDDEESDEEAVKK	K	T	95.00%	3.15	0.257	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216LR_PC1_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.37%	WDEQTSNTKGDDDEESDEEAVKK	K	T	95.00%	2.9	0.192	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216LR_PC1_01	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.90%	2	2	2	0.01%	1.98%	GGDVSPSPYSSSSWR	R	R	95.00%	3.28	0.395	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216LR_PC1_01	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.90%	2	2	2	0.01%	1.98%	KSPSPAGGGSSPYSR	R	R	95.00%	2.77	0.455	0	1	0	0	2	1,674.60	339	353	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	ATTPASTANSDVATIPTDTPLKEENEGFVK	K	V	89.80%	5.91	0.0138	0	0	1	0	2	3,184.49	260	289	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	3.53	0.444	0	0	1	0	2	2,585.34	199	222	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	ETDYPAGEDLSESGQVDK	K	A	95.00%	3.12	0.149	0	1	0	0	2	2,019.81	789	806	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	LHQLSGSDQLESTAHSR	K	I	95.00%	5.06	0.465	0	1	1	0	2	1,945.88	179	195	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	NVSTGSAENEEKSEVQAIIESTPELDMDKDL	R	G	95.00%	6.42	0.483	0	0	1	1	2	3,893.75	313	347	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	SASQSSLDKLDQELK	R	E	95.00%	3.19	0.351	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	SASQSSLDKLDQELKEQQK	R	E	95.00%	4.5	0.38	0	0	2	0	2	2,242.06	714	732	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	SHTSLKDELSDVSQGGSK	R	A	95.00%	3.09	0.373	0	0	1	0	2	1,954.88	242	259	TRUE	
SNU216LR_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	12	13	0.08%	17.50%	TKLHQLSGSDQLESTAHSR	R	I	95.00%	4.56	0.377	0	0	1	1	2	2,175.02	177	195	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	5	8	8	0.05%	3.59%	AVIVSSPK	K	A	95.00%	1.84	0.246	1	1	0	0	2	880.454	1396	1403	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	5	8	8	0.05%	3.59%	HLEAADKGHSPAQKPK	K	T	95.00%	2.73	0.461	0	1	1	1	2	1,793.87	596	611	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	5	8	8	0.05%	3.59%	IDLPEVQIEHDPELEKESPGLK	K	N	95.00%	4.95	0.427	0	0	1	0	2	2,595.26	1083	1104	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	5	8	8	0.05%	3.59%	QSSVTQVTEQSPK	K	V	95.00%	3.32	0.304	0	1	0	0	2	1,498.68	118	130	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	5	8	8	0.05%	3.59%	SRSPMHYMYRPR	R	S	95.00%	2.97	0.22	0	0	0	1	2	1,660.72	508	519	TRUE	
SNU216LR_PC1_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	RPESPSEISPIK	K	G	95.00%	2.34	0.278	0	2	0	0	2	1,419.69	262	273	TRUE	
SNU216LR_PC1_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.15	0.229	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC1_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.15%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	4.49	0.374	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216LR_PC1_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.15%	PGTPSDHQSQEASQFER	R	K	95.00%	3.74	0.41	0	1	1	0	2	1,980.81	380	396	TRUE	
SNU216LR_PC1_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.15%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	86.10%	6.01	0.0157	0	0	0	1	2	3,783.64	362	396	TRUE	
SNU216LR_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	6	9	12	0.07%	8.21%	FVVIQNEDLGPASPLDSTFYR	R	S	95.00%	3.72	0.376	0	0	1	0	2	2,448.15	956	976	TRUE	
SNU216LR_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	6	9	12	0.07%	8.21%	GLQSLPTHDPSPLQR	K	Y	95.00%	2.85	0.379	0	1	1	0	2	1,725.83	1067	1081	TRUE	
SNU216LR_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	6	9	12	0.07%	8.21%	LLQETELVEPLTPSGAMPNQAQMR	R	I	95.00%	3.96	0.438	0	0	1	0	2	2,733.30	660	683	TRUE	
SNU216LR_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	6	9	12	0.07%	8.21%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.73	0.479	0	2	0	0	2	1,993.88	1024	1042	TRUE	
SNU216LR_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	6	9	12	0.07%	8.21%	SGGGDLTLGLEPSEEEAPRSPLAPSEGAGSD	R	G	95.00%	6.91	0.146	0	0	1	1	2	4,223.90	1024	1066	TRUE	
SNU216LR_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	6	9	12	0.07%	8.21%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	5.29	0.622	0	3	1	0	2	2,329.01	1043	1066	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	DAELQDQEFGKRDSLGTYSSR	R	D	95.00%	3.45	0.19	0	1	0	0	2	2,482.09	859	879	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	4.42	0.452	0	0	1	2	2	2,929.37	1015	1043	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	DHHGRYSSQDADEQDWEFQKR	R	D	95.00%	3.79	0.24	0	0	0	1	2	2,714.10	913	933	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	DSLGAYASQDANEQGQDLGK	R	R	95.00%	3.56	0.477	0	1	0	0	2	2,146.89	892	911	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	DSLGTYSSR	R	D	80.70%	1.67	0.282	0	1	0	0	2	1,065.42	871	879	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	DVSLGDWEFGKRDSLGAYASQDANEQGQ	R	R	95.00%	5.47	0.433	0	0	1	0	2	3,536.56	880	911	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	EAAFSPGQQDWSR	R	D	95.00%	3.1	0.35	0	1	0	0	2	1,558.63	1099	1111	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	FSEGVLQSPSQDQEK	R	L	95.00%	3.58	0.246	0	1	0	0	2	1,758.76	428	442	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.85	0.476	0	2	2	0	2	2,090.97	1023	1043	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	KEVLASPDR	R	L	90.60%	2.01	0.193	0	1	0	0	2	1,094.52	173	181	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	LDSPPPSPITEASEAAEAAEAGNLAVSSR	R	E	95.00%	5.54	0.556	0	0	1	0	2	2,917.35	492	520	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	NRSAEEGELAESK	R	S	95.00%	2.75	0.312	0	0	1	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	PAVEASTGGEATQETGKEEAGKEEPPPLTPP	R	C	95.00%	3.04	0.234	0	0	1	1	2	3,411.60	103	135	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	7.22	0.587	0	1	1	0	2	2,302.99	891	911	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	4.51	0.432	0	1	0	1	2	2,459.10	891	912	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	7.57	0.523	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	RFSEGVLQSPSQDQEK	R	L	95.00%	2.53	0.189	0	1	0	0	2	1,914.86	427	442	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	RPSQGPPARSPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.39	0.457	0	0	1	1	2	3,477.58	1543	1572	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	SAEEGELAESK	R	S	95.00%	1.88	0.253	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	SFGTRPLSSGFSPEEAQQQDEEFEK	R	K	82.90%	4.72	0.0426	0	0	1	0	2	2,910.25	976	1000	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	4.85	0.522	0	2	1	0	2	2,531.07	1552	1572	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	SQEADVQDWEFR	R	K	95.00%	3.08	0.47	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	SSGSEGSSPNWLQALK	K	L	95.00%	2.58	0.25	0	1	0	0	2	1,727.76	1708	1723	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	VNLFPGLSPSALK	K	A	89.80%	2.02	0.219	0	1	0	0	2	1,422.74	1645	1657	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	VPSSDEEVVEEPQSR	R	R	95.00%	4.29	0.455	0	3	1	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	VSGAGFSPSSK	R	M	95.00%	2.19	0.419	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	VVGKPAQLGTQRSQEADVQDWEFR	R	K	95.00%	3.28	0.279	0	0	1	0	2	2,824.34	824	847	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	YESQEPLAGQESPLPLATR	R	E	95.00%	3.75	0.505	0	1	1	0	2	2,166.01	590	608	TRUE	
SNU216LR_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	39	45	0.27%	23.20%	YSSQDADEQDWEFQKR	R	D	95.00%	4.5	0.539	0	1	1	0	2	2,111.83	918	933	TRUE	
SNU216LR_PC1_01	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	3	3	4	0.02%	3.13%	AQENYEGSEEVSPPQTK	R	D	95.00%	3.32	0.306	0	1	0	0	2	1,972.82	2552	2568	TRUE	
SNU216LR_PC1_01	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	3	3	4	0.02%	3.13%	NGILAIEGTGSDVDDDMSGDEKQDNESNV	R	D	95.00%	4.19	0.239	0	0	1	0	2	3,472.43	1583	1614	TRUE	
SNU216LR_PC1_01	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	3	3	4	0.02%	3.13%	RPYTGNPQYTYNNWSPPVQSNETSNGYFL	R	S	95.00%	5.51	0.157	0	0	2	0	2	3,759.65	2429	2459	TRUE	
SNU216LR_PC1_01	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	2.51%	AQLGINEDHSEGDEK	R	S	95.00%	2.92	0.328	0	1	0	0	2	1,721.70	211	225	TRUE	
SNU216LR_PC1_01	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	2.51%	RSSTSSEPTPTVK	R	T	91.60%	2.93	0.0971	0	1	0	0	2	1,456.67	830	842	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	6	7	0.04%	7.79%	EPVEETTKSPSDVNISAQPALSNFISQLEPEV	R	I	84.50%	5.85	0.0039	0	0	1	0	2	4,224.06	748	785	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	6	7	0.04%	7.79%	GGNLPPVSPNDSGAK	K	I	95.00%	2.6	0.32	0	1	0	0	2	1,489.67	659	673	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	6	7	0.04%	7.79%	KKSVGGDSDTEDMR	R	S	95.00%	2.62	0.357	0	2	0	0	2	1,604.66	296	309	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	6	7	0.04%	7.79%	LIPITGGNARSPEDQLGK	K	H	95.00%	3.57	0.539	0	1	0	0	2	1,945.97	521	538	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	6	7	0.04%	7.79%	SPEDQLGK	R	H	95.00%	1.89	0.274	1	0	0	0	2	953.3978	531	538	TRUE	
SNU216LR_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	6	7	0.04%	7.79%	SSHSLDYDKDR	R	V	95.00%	3.04	0.354	0	0	1	0	2	1,402.56	274	284	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	ALQLSNSPGASSAFLK	K	A	95.00%	3.51	0.34	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	FLSHSTDSLNK	K	I	81.30%	2.44	0.0892	0	1	0	0	2	1,328.59	1929	1939	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	RAETFGGFDSHQMNASK	R	G	88.80%	3.24	0.107	0	0	1	0	2	1,962.82	2468	2484	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	H	95.00%	5.16	0.494	0	0	1	0	2	3,230.52	1604	1635	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	4.63	0.352	0	0	0	1	2	4,169.94	1604	1643	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	SGSLDSELSVSPK	K	R	95.00%	3.18	0.256	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	SGSLDSELSVSPKR	K	N	95.00%	3.09	0.412	0	1	0	0	2	1,541.72	2722	2735	TRUE	
SNU216LR_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.08%	VDSLVSLSEEDLESDQR	R	E	95.00%	3.33	0.483	0	1	0	0	2	2,000.87	1644	1660	TRUE	
SNU216LR_PC1_01	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	3	3	3	0.02%	5.17%	NQATSATSEKDNDDDQSDKGTYTIELENPN	K	K	95.00%	4.95	0.0666	0	0	0	1	2	4,180.76	482	518	TRUE	
SNU216LR_PC1_01	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	3	3	3	0.02%	5.17%	QGSFTIEKPSPNIPIEIPHINK	R	Q	95.00%	3.75	0.343	0	0	1	0	2	2,652.38	837	859	TRUE	
SNU216LR_PC1_01	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	3	3	3	0.02%	5.17%	SSPVNNHHSPGQTPTLGQPEAR	K	A	95.00%	4.39	0.34	0	0	1	0	2	2,391.08	1522	1543	TRUE	
SNU216LR_PC1_01	Rac GTPase activating protein	IPI00334294	190,968.80	99.90%	2	2	2	0.01%	2.07%	NSMPTVSFLDQDQSPPR	K	F	95.00%	3.91	0.442	0	1	0	0	2	1,998.86	841	857	TRUE	
SNU216LR_PC1_01	Rac GTPase activating protein	IPI00334294	190,968.80	99.90%	2	2	2	0.01%	2.07%	SAKSEESLTSLHAVDGDSK	R	L	81.00%	4.07	0.0505	0	0	1	0	2	2,040.91	354	372	TRUE	
SNU216LR_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	KISGTTALQEALK	R	E	95.00%	3.01	0.333	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216LR_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	SPSASSLSSMSSVASSVSSR	R	P	95.00%	4.42	0.0533	0	1	0	0	2	1,980.86	310	329	TRUE	
SNU216LR_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	SPSASSLSSMSSVASSVSSRPSR	R	T	95.00%	4.28	0.112	0	0	1	0	2	2,321.04	310	332	TRUE	
SNU216LR_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	TASESISNLSEAGSIK	K	K	95.00%	2.99	0.277	0	1	0	0	2	1,673.76	191	206	TRUE	
SNU216LR_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	7	7	0.04%	5.81%	GDLSDVEEEEEEEMDVDEATGAVK	R	K	95.00%	5.1	0.457	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216LR_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	7	7	0.04%	5.81%	GDLSDVEEEEEEEMDVDEATGAVKK	R	H	95.00%	5.01	0.488	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216LR_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	7	7	0.04%	5.81%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	4.69	0.357	0	0	1	1	2	4,089.02	277	313	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	7	7	0.04%	5.81%	YMNSDTTSPELR	R	E	85.60%	2.14	0.158	0	1	0	0	2	1,509.59	1105	1116	TRUE	
SNU216LR_PC1_01	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	99.80%	2	2	2	0.01%	3.00%	LDSSPVLSPGNK	K	A	95.00%	2.77	0.424	0	1	0	0	2	1,293.61	775	786	TRUE	
SNU216LR_PC1_01	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	99.80%	2	2	2	0.01%	3.00%	NLLHADSNGYTNLPDVVQPSHSPTENSK	R	G	95.00%	4.23	0.262	0	0	1	0	2	3,114.42	897	924	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain-containing protein 4	IPI00440727	152,216.90	100.00%	1	2	2	0.01%	2.35%	EAPSPLMIHSPQMSQFQSLTHQSPPQQNV	R	K	95.00%	5.51	0.36	0	0	1	1	2	3,677.72	1061	1092	TRUE	
SNU216LR_PC1_01	Protein FAM38A	IPI00006093	240,951.80	100.00%	3	4	6	0.04%	1.52%	DPGLEPGPDSPGGSSPPR	K	R	95.00%	3.25	0.479	0	2	0	0	2	1,798.76	963	980	TRUE	
SNU216LR_PC1_01	Protein FAM38A	IPI00006093	240,951.80	100.00%	3	4	6	0.04%	1.52%	DPGLEPGPDSPGGSSPPRR	K	Q	95.00%	3.21	0.315	0	2	1	0	2	2,034.83	963	981	TRUE	
SNU216LR_PC1_01	Protein FAM38A	IPI00006093	240,951.80	100.00%	3	4	6	0.04%	1.52%	SGSEEAVTDPGER	R	E	95.00%	2.61	0.462	0	1	0	0	2	1,413.55	1200	1212	TRUE	
SNU216LR_PC1_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.32	0.447	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216LR_PC1_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.23	0.463	0	0	2	1	2	2,727.34	846	871	TRUE	
SNU216LR_PC1_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.85	0.417	0	0	2	1	2	3,113.52	846	874	TRUE	
SNU216LR_PC1_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	99.80%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.92	0.385	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC1_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	4	4	0.02%	4.94%	RASDDGKLTDPSK	R	T	95.00%	2.08	0.293	0	1	1	0	2	1,469.66	41	53	TRUE	
SNU216LR_PC1_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	4	4	0.02%	4.94%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.58	0.497	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC1_01	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.67	0.53	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC1_01	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	QSSPSGSEQLVR	R	R	95.00%	2.79	0.353	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC1_01	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	5	5	0.03%	4.41%	EIKDSTSQHDDDNISTTSGFSSR	K	A	95.00%	3.89	0.447	0	0	1	0	2	2,607.08	168	190	TRUE	
SNU216LR_PC1_01	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	5	5	0.03%	4.41%	NTSLPPLWSPEAER	K	S	95.00%	2.44	0.314	0	1	0	0	2	1,676.77	201	214	TRUE	
SNU216LR_PC1_01	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	5	5	0.03%	4.41%	SHSLSQHTATSSK	R	K	95.00%	2.55	0.312	0	1	1	0	2	1,450.63	215	227	TRUE	
SNU216LR_PC1_01	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	5	5	0.03%	4.41%	VQMTSPSSTGSPMFK	K	F	91.20%	3.26	0.0579	0	1	0	0	2	1,664.71	512	526	TRUE	
SNU216LR_PC1_01	OTTHUMP00000028561	IPI00396634	196,711.40	99.90%	1	1	1	0.01%	0.83%	MSPSGGAPQTTPTLR	K	S	95.00%	2.66	0.261	0	1	0	0	2	1,580.71	1153	1167	TRUE	
SNU216LR_PC1_01	Huntingtin	IPI00002335	347,859.30	100.00%	2	2	2	0.01%	0.54%	EKEPGEQASVPLSPK	K	K	95.00%	3.56	0.447	0	1	0	0	2	1,675.79	1189	1203	TRUE	
SNU216LR_PC1_01	Huntingtin	IPI00002335	347,859.30	100.00%	2	2	2	0.01%	0.54%	GKEKEPGEQASVPLSPK	K	K	95.00%	4.82	0.473	0	0	1	0	2	1,860.91	1187	1203	TRUE	
SNU216LR_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.78%	ESVDLPEEKLPISDSPPDTQEIHVIEQEK	K	L	95.00%	4.29	0.433	0	0	0	1	2	3,381.60	1508	1536	TRUE	
SNU216LR_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.78%	EVSPSDVR	R	E	95.00%	1.96	0.358	0	1	0	0	2	968.4085	1951	1958	TRUE	
SNU216LR_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.78%	NLSFNELYPSGTLK	R	L	95.00%	2.76	0.4	0	1	0	0	2	1,662.78	1548	1561	TRUE	
SNU216LR_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.78%	SLPSSSQLKGSPQAISR	R	A	95.00%	3.76	0.229	0	1	1	0	2	1,822.91	1159	1175	TRUE	
SNU216LR_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.78%	STPLASPSPSPGRSPQR	R	L	95.00%	3.34	0.383	0	1	1	0	2	1,801.86	1218	1234	TRUE	
SNU216LR_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.78%	TTSFFLNSPEK	R	E	89.70%	2.29	0.158	0	1	0	0	2	1,350.60	1285	1295	TRUE	
SNU216LR_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.78%	TTSFFLNSPEKEHQEMDEGSQSLEK	R	L	95.00%	5.38	0.198	0	0	1	1	2	2,978.28	1285	1309	TRUE	
SNU216LR_PC1_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.58	0.241	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC1_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	3.14	0.354	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	AAAKSPDLSNQNSDQANEEWETASESSDF	R	R	95.00%	4.79	0.546	0	0	1	0	2	3,681.51	1302	1334	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	DSQSASGEERPPEADGK	R	K	95.00%	2.99	0.355	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	EGPEPPEEVPPPTTPPVPK	K	V	95.00%	2.99	0.397	0	1	1	0	2	2,073.98	597	615	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	ERGTPPVDPK	R	L	94.70%	2.05	0.229	0	1	0	0	2	1,175.55	779	788	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	ERSDSGGSSSEPFDR	R	H	86.10%	2.99	0.0654	0	1	0	0	2	1,692.65	757	771	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	KGNSPNSEPPTPK	K	T	95.00%	2.96	0.258	0	2	0	0	2	1,432.65	377	389	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	KQSSSEISLAVER	R	A	95.00%	2.4	0.286	0	1	0	0	2	1,513.73	454	466	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	LAWVGDVFTATPAEPRPLTSPLR	K	Q	95.00%	3.55	0.385	0	1	1	0	2	2,574.31	789	811	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	2.51	0.198	0	0	0	1	2	2,537.95	339	359	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	RKQSSSEISLAVER	R	A	94.90%	2.93	0.207	0	0	1	0	2	1,669.83	453	466	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	13	14	0.08%	8.21%	SEGSEYEEIPKR	R	R	95.00%	2.44	0.388	0	0	1	0	2	1,503.64	1089	1100	TRUE	IPI00643923,IPI00741537
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	AAVLSDSEDEEKASAK	K	K	95.00%	2.36	0.212	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	EAEDSDSDDNIKR	K	G	95.00%	2.75	0.297	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	GPASDSETEDASR	K	H	95.00%	2.1	0.367	0	1	0	0	2	1,401.52	310	322	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	HQASDSENEELPKPR	R	I	95.00%	2.36	0.408	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	HQASDSENEEPPKPR	R	M	95.00%	2.59	0.375	0	1	1	0	2	1,800.76	193	207	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	ISDSESEDPPR	R	H	95.00%	1.8	0.361	0	1	0	0	2	1,391.48	247	257	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	KAAVLSDSEDEEK	R	A	86.00%	2.18	0.22	0	1	0	0	2	1,580.61	393	405	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	MDSDEDEKEGEEEK	K	V	95.00%	2.8	0.494	0	2	0	0	2	1,765.60	375	388	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	NQASDSENEELPKPR	R	V	95.00%	2.52	0.302	0	1	0	0	2	1,873.74	284	298	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	TIASDSEEEAGKELSDK	K	K	95.00%	2.4	0.371	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	TIASDSEEEAGKELSDKK	K	N	95.00%	2.33	0.243	0	1	0	0	2	2,096.87	435	452	TRUE	
SNU216LR_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	12	13	14	0.08%	17.30%	VSDSESEGPQK	R	G	95.00%	2.04	0.425	0	1	0	0	2	1,242.49	299	309	TRUE	
SNU216LR_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	7	8	0.05%	1.23%	GAGDGSDEEVDGK	K	A	95.00%	2.5	0.405	0	1	0	0	2	1,315.47	1937	1949	TRUE	
SNU216LR_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	7	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAK	K	P	95.00%	2.75	0.418	0	1	0	0	2	1,957.77	1937	1956	TRUE	
SNU216LR_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	7	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.7	0.551	0	2	1	0	2	2,254.90	1937	1959	TRUE	
SNU216LR_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	7	8	0.05%	1.23%	KGAGDGSDEEVDGK	R	A	95.00%	3.59	0.545	0	1	0	0	2	1,443.56	1936	1949	TRUE	
SNU216LR_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	7	8	0.05%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	4.44	0.585	0	1	1	0	2	2,085.86	1936	1956	TRUE	
SNU216LR_PC1_01	COPA protein	IPI00646493	139,327.40	100.00%	2	2	2	0.01%	1.05%	KNLSPGAVESDVR	K	G	95.00%	2.66	0.44	0	1	0	0	2	1,451.69	170	182	TRUE	
SNU216LR_PC1_01	COPA protein	IPI00646493	139,327.40	100.00%	2	2	2	0.01%	1.05%	NLSPGAVESDVR	K	G	95.00%	2.76	0.447	0	1	0	0	2	1,323.59	171	182	TRUE	
SNU216LR_PC1_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	6	0.04%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	5.59	0.459	0	3	0	0	2	2,279.96	480	500	TRUE	
SNU216LR_PC1_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	6	0.04%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.41	0.433	0	1	0	0	2	1,925.87	463	479	TRUE	
SNU216LR_PC1_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	6	0.04%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4.32	0.405	0	1	1	0	2	2,270.04	460	479	TRUE	
SNU216LR_PC1_01	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	99.20%	1	1	1	0.01%	0.34%	EQAPDISPK	R	S	95.00%	2.74	0.343	0	1	0	0	2	1,064.47	941	949	TRUE	
SNU216LR_PC1_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	4	5	8	0.05%	2.55%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	4.04	0.444	0	3	2	0	2	2,077.98	64	85	TRUE	
SNU216LR_PC1_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	4	5	8	0.05%	2.55%	GSQKSTDSPGADAELPESAAR	R	D	92.00%	1.99	0.255	0	1	0	0	2	2,153.93	15	35	TRUE	
SNU216LR_PC1_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	4	5	8	0.05%	2.55%	RGSQKSTDSPGADAELPESAAR	R	D	95.00%	3.29	0.47	0	1	0	0	2	2,469.97	14	35	TRUE	
SNU216LR_PC1_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	4	5	8	0.05%	2.55%	STDSPGADAELPESAAR	K	D	95.00%	2.87	0.39	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.81	0.391	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.39	0.296	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.03	0.354	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	7	9	0.05%	7.94%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	2.99	0.407	0	0	1	0	2	3,454.32	11	39	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	7	9	0.05%	7.94%	EVIDASDKEGMSPAK	K	R	95.00%	2.71	0.247	0	1	0	0	2	1,656.72	82	96	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	7	9	0.05%	7.94%	EVIDASDKEGMSPAKR	K	T	94.90%	2.59	0.203	0	1	0	0	2	1,812.82	82	97	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	7	9	0.05%	7.94%	KKSPIINESR	R	S	95.00%	2.67	0.359	0	1	1	0	2	1,251.65	275	284	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	7	9	0.05%	7.94%	SINEENGEVSEDQSQNK	K	H	95.00%	3.09	0.405	0	3	0	0	2	1,986.79	23	39	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	7	9	0.05%	7.94%	VQSGMGLILQGYESGSEEEGEIHEK	K	A	95.00%	4.17	0.187	0	0	1	0	2	2,786.22	129	153	TRUE	
SNU216LR_PC1_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	5	0.03%	6.19%	KDSNELSDSAGEEDSADLKR	K	A	95.00%	2.75	0.238	0	0	1	0	2	2,325.91	709	728	TRUE	
SNU216LR_PC1_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	5	0.03%	6.19%	KTESPIKLSPATPSR	K	K	95.00%	3.65	0.298	0	1	1	0	2	1,691.87	660	674	TRUE	
SNU216LR_PC1_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	5	0.03%	6.19%	SPPLPAVIR	R	N	95.00%	1.58	0.358	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216LR_PC1_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	5	0.03%	6.19%	SVAVSDEEEVEEEAER	R	R	95.00%	3.83	0.338	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	FYETKEESYSPSKDR	K	N	87.30%	2.52	0.15	0	0	1	0	2	1,945.82	423	437	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	3.9	0.569	0	1	1	0	2	2,897.99	1234	1256	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	IESDEEEDFENVGK	R	V	95.00%	3.78	0.411	0	2	0	0	2	1,719.66	1302	1315	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	KPDSPPKVLEPENK	K	Q	95.00%	4.53	0.487	0	1	1	0	2	1,657.82	704	717	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	KPYRIESDEEEDFENVGK	K	V	95.00%	4.12	0.282	0	0	1	0	2	2,263.98	1298	1315	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	QINYKEDSESDGSQK	R	S	90.60%	1.95	0.226	0	1	0	0	2	1,887.70	1173	1187	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	STDEYSEADEEEEEEEGKPSR	R	K	95.00%	3.76	0.549	0	2	0	0	2	2,524.94	1236	1256	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	SVTPTKEFLKDEIK	K	Q	95.00%	3.01	0.463	0	0	1	0	2	1,714.87	365	378	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	3.91	0.255	0	0	1	1	2	2,263.14	553	571	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	VGSPLDYSLVDLPSTNGQSPGK	K	A	95.00%	4.27	0.524	0	3	1	0	2	2,311.09	1316	1337	TRUE	
SNU216LR_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	15	19	0.11%	10.50%	VGSPLDYSLVDLPSTNGQSPGKAIENLIGKP	K	S	83.40%	2.55	0.199	0	0	1	0	2	3,684.78	1316	1349	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	2	0.01%	2.47%	ELEQHIQTSDPENFQSEER	R	S	95.00%	3.88	0.381	0	0	1	0	2	2,396.00	837	855	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	2	0.01%	2.47%	LFVLLPEQSPVSYSK	R	R	95.00%	3.02	0.32	0	1	0	0	2	1,786.90	736	750	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	2	0.01%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.76	0.519	0	1	1	0	2	2,727.04	12	35	TRUE	
SNU216LR_PC1_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	1	1	1	0.01%	1.92%	LRLSPSPTSQR	R	S	95.00%	1.9	0.282	0	1	0	0	2	1,401.63	387	397	TRUE	
SNU216LR_PC1_01	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	2	2	2	0.01%	3.56%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	5.99	0.449	0	0	1	0	2	3,284.37	341	369	TRUE	
SNU216LR_PC1_01	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	2	2	2	0.01%	3.56%	EKLQSFDSPER	R	K	95.00%	2.71	0.282	0	1	0	0	2	1,415.62	1018	1028	TRUE	
SNU216LR_PC1_01	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	4	4	0.02%	3.08%	EKQEEEVDYESEEEEER	K	E	95.00%	3.06	0.141	0	0	1	0	2	2,265.86	1419	1435	TRUE	
SNU216LR_PC1_01	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	4	4	0.02%	3.08%	EKQEEEVDYESEEEEEREGEENDDEDMQEE	K	N	95.00%	4.94	0.61	0	0	1	1	2	3,971.46	1419	1449	TRUE	
SNU216LR_PC1_01	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	4	4	0.02%	3.08%	LPEEVATPTTDEEKDSLIAIDR	K	S	95.00%	4.05	0.368	0	0	1	0	2	2,522.19	351	372	TRUE	
SNU216LR_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	6	6	0.04%	1.66%	HDKSSTEEEMEIEK	K	I	95.00%	3.53	0.441	0	1	1	0	2	1,771.71	135	148	TRUE	
SNU216LR_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	6	6	0.04%	1.66%	LSGLANVVLHELSGDDDTDQNMR	R	A	95.00%	3.05	0.451	0	1	1	0	2	2,579.14	5	27	TRUE	
SNU216LR_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	6	6	0.04%	1.66%	SAAQPSTSPAEVQSLK	R	K	95.00%	2.3	0.341	0	1	0	0	2	1,680.78	2865	2880	TRUE	
SNU216LR_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	6	6	0.04%	1.66%	SAAQPSTSPAEVQSLKK	R	A	95.00%	3.63	0.0942	0	1	0	0	2	1,808.88	2865	2881	TRUE	
SNU216LR_PC1_01	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	4	5	0.03%	5.10%	NIMTQQKDSFEMEEVQSTEGEAPHVPATY	R	S	95.00%	7.6	0.632	0	0	1	1	2	4,016.83	458	492	TRUE	
SNU216LR_PC1_01	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	4	5	0.03%	5.10%	SQSLPTTLLSPVR	R	V	95.00%	2.29	0.282	0	2	0	0	2	1,478.76	737	749	TRUE	
SNU216LR_PC1_01	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	4	5	0.03%	5.10%	TPLGASLDEQSSSTLK	R	G	95.00%	3.3	0.472	0	1	0	0	2	1,713.79	87	102	TRUE	
SNU216LR_PC1_01	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	EIPEDVDMEEEKESEDSDEENDFTEK	K	V	95.00%	2.99	0.343	0	0	1	0	2	3,277.17	766	791	TRUE	
SNU216LR_PC1_01	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	VQDTSNTGLGEDIIHQLSK	K	S	95.00%	5.09	0.463	0	1	1	0	2	2,135.00	792	810	TRUE	
SNU216LR_PC1_01	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	NRPDSGVEEAWK	R	I	95.00%	3.14	0.344	0	1	0	0	2	1,467.63	883	894	TRUE	
SNU216LR_PC1_01	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	SIVVIHPDTGR	R	E	95.00%	2.58	0.266	0	1	0	0	2	1,273.63	1657	1667	TRUE	
SNU216LR_PC1_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	HPEPVPEEGSEDELPPQVHKV	R	-	95.00%	4.08	0.351	0	0	2	0	2	2,429.10	819	839	TRUE	
SNU216LR_PC1_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	LEASYSDSPPGEEDLLVHVAEGSK	R	S	95.00%	3.15	0.398	0	0	1	0	2	2,609.17	11	34	TRUE	
SNU216LR_PC1_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	RESDESGESAPDEGGEGAR	R	A	95.00%	4.62	0.594	0	1	0	0	2	2,014.76	733	751	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	AASSDQLRDNSPPAFKPEPPK	R	A	95.00%	3.64	0.34	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	DNSPPPAFKPEPPK	R	A	95.00%	3.19	0.525	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	ERPSSREDTPSR	K	L	95.00%	1.92	0.367	0	2	0	0	2	1,576.62	437	448	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	GRSIDQDYER	R	A	95.00%	2.29	0.205	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	GSYGSDAEEEEYR	R	Q	95.00%	2.64	0.447	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.28	0.354	0	1	1	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	KVQVAALQASPPLDQDDR	R	A	95.00%	5.09	0.504	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	SFSPEER	R	R	95.00%	1.79	0.259	0	1	0	0	2	931.3557	413	419	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	5.5	0.504	0	0	3	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	SREHPHSRSPSPEPR	R	G	95.00%	2.53	0.353	0	1	0	0	2	1,995.76	286	300	TRUE	
SNU216LR_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	14	18	0.11%	11.90%	SWEDSPER	R	G	88.80%	1.34	0.155	1	0	0	0	2	1,085.39	170	177	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	10	0.06%	6.67%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	86.60%	3.63	0.101	0	0	1	1	2	2,865.29	88	118	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	10	0.06%	6.67%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.09	0.473	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	10	0.06%	6.67%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.41	0.481	0	3	1	0	2	1,798.73	964	980	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	10	0.06%	6.67%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.89	0.517	0	0	1	0	2	3,176.48	936	963	TRUE	
SNU216LR_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	10	0.06%	6.67%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.46	0.253	0	0	2	0	2	3,036.38	937	963	TRUE	
SNU216LR_PC1_01	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	3	4	6	0.04%	1.84%	AMTMPPVSPVGAEGPVVLR	R	S	95.00%	2.89	0.431	0	1	0	0	2	1,987.97	2352	2370	TRUE	
SNU216LR_PC1_01	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	3	4	6	0.04%	1.84%	LEHSSFPEGPGPGSGDEANGPR	R	G	95.00%	4.95	0.558	0	2	2	0	2	2,273.95	2158	2179	TRUE	
SNU216LR_PC1_01	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	3	4	6	0.04%	1.84%	LEHSSFPEGPGPGSGDEANGPRGER	R	Q	95.00%	3.08	0.348	0	0	1	0	2	2,616.11	2158	2182	TRUE	
SNU216LR_PC1_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	7	0.04%	4.49%	ELDPSLVSANDSPSGMQTR	R	C	95.00%	4.12	0.406	0	1	0	0	2	2,083.90	2150	2168	TRUE	
SNU216LR_PC1_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	7	0.04%	4.49%	GQSPLAPLLETLEDPSASHGGQTDAYLTLTS	R	M	95.00%	4.89	0.541	0	0	1	0	2	3,405.62	5	36	TRUE	
SNU216LR_PC1_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	7	0.04%	4.49%	RASQGLLSSIENSESDSSEAKEEGSR	R	K	95.00%	4.66	0.355	0	0	2	0	2	2,833.25	1540	1565	TRUE	
SNU216LR_PC1_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	7	0.04%	4.49%	SLSPDEER	K	L	84.00%	1.72	0.202	0	1	0	0	2	1,012.40	2391	2398	TRUE	
SNU216LR_PC1_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	7	0.04%	4.49%	SNESVDIQDQEEK	K	V	95.00%	3.2	0.433	0	1	0	0	2	1,600.64	1576	1588	TRUE	
SNU216LR_PC1_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	7	0.04%	4.49%	SPLHIKDDVLPK	K	Q	95.00%	2.67	0.319	0	0	1	0	2	1,441.75	1454	1465	TRUE	
SNU216LR_PC1_01	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.25%	APSLTDLVK	K	S	95.00%	2.12	0.195	0	1	0	0	2	1,023.51	1053	1061	TRUE	
SNU216LR_PC1_01	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.25%	LVEPHSPSPSSK	R	F	95.00%	2.7	0.368	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216LR_PC1_01	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.25%	TNSMGSATGPLPGTK	R	V	95.00%	2.52	0.315	0	1	0	0	2	1,514.66	465	479	TRUE	
SNU216LR_PC1_01	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.25%	TNSPAYSDISDAGEDGEGKVDSVK	K	S	95.00%	6.12	0.0389	0	0	1	0	2	2,521.06	840	863	TRUE	
SNU216LR_PC1_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	3	3	0.02%	3.59%	RLSVELTSSLFR	K	T	95.00%	2.82	0.422	0	1	1	0	2	1,487.76	673	684	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	3	3	0.02%	3.59%	RTSMGGTQQQFVEGVR	R	M	95.00%	2.79	0.33	0	0	1	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC1_01	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	4.33	0.454	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	2	2	0.01%	3.33%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	2.95	0.185	0	0	1	0	2	2,778.05	587	608	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	2	2	0.01%	3.33%	IRQEDENFNSLLQNGDILNSSTEEK	K	F	95.00%	3.84	0.253	0	0	1	0	2	2,973.35	695	719	TRUE	
SNU216LR_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	8	10	0.06%	6.65%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	3.74	0.409	0	1	1	0	2	2,816.12	796	819	TRUE	
SNU216LR_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	8	10	0.06%	6.65%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	6.02	0.553	0	0	2	0	2	2,614.30	1454	1477	TRUE	
SNU216LR_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	8	10	0.06%	6.65%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.42	0.504	0	0	0	2	2	4,419.92	885	926	TRUE	
SNU216LR_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	8	10	0.06%	6.65%	SPPEGDTTLFLSR	R	L	95.00%	2.43	0.39	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216LR_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	8	10	0.06%	6.65%	SSSPAGETEGDREPQARPGEGTAPLPPPGQ	R	V	95.00%	3	0.233	0	0	1	0	2	3,180.46	1712	1742	TRUE	
SNU216LR_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	8	10	0.06%	6.65%	TASPLEHILQTLFGK	K	K	95.00%	3.55	0.475	0	1	1	0	2	1,734.88	1310	1324	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	3	0.02%	4.76%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	3.83	0.354	0	0	2	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	3	0.02%	4.76%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	3.4	0.161	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFDI	K	Q	95.00%	7.74	0.407	0	0	2	1	2	3,353.45	35	69	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFDI	K	E	95.00%	5.35	0.493	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	QTELFAHFIQPAAQKTPTSPLK	K	M	90.20%	2.98	0.204	0	0	1	0	2	2,613.25	98	119	TRUE	
SNU216LR_PC1_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.50%	2	3	3	0.02%	16.10%	ATAPQTQHVSPMR	R	Q	89.90%	2.09	0.206	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC1_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.50%	2	3	3	0.02%	16.10%	KPATPAEDDEDDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.74	0.535	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	2	3	3	0.02%	6.85%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.09	0.51	0	0	1	1	2	3,586.35	475	504	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	2	3	3	0.02%	6.85%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	2.67	0.319	0	0	1	0	2	2,869.29	505	528	TRUE	
SNU216LR_PC1_01	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	2	3	3	0.02%	1.49%	DSSIIDPGTEQDLPSPENSSVK	R	E	95.00%	4.61	0.394	0	1	1	0	2	2,395.06	3392	3413	TRUE	
SNU216LR_PC1_01	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	2	3	3	0.02%	1.49%	GPENPQVEVLSEEEGEEEEEEEDILSLAEEK	K	Y	95.00%	4.56	0.507	0	0	1	0	2	3,594.53	2478	2508	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	DSENLASPSEYPENGER	R	F	95.00%	3	0.303	0	1	0	0	2	1,973.78	617	633	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.53	0.319	0	1	0	0	2	1,971.75	883	898	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	4.32	0.358	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	3.62	0.076	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	GPPQSPVFEGVYNNSR	K	M	95.00%	3.1	0.516	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.98	0.206	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	QGSGRESPSLASR	R	E	95.00%	2.41	0.32	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	5	0.03%	3.81%	GISPVVSEHR	K	K	95.00%	1.68	0.358	0	1	0	0	2	1,160.55	781	790	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	5	0.03%	3.81%	GISPVVSEHRK	K	Q	95.00%	2.46	0.347	0	0	1	0	2	1,288.64	781	791	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	5	0.03%	3.81%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	3.3	0.346	0	0	2	0	2	2,454.13	755	776	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	5	0.03%	3.81%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.89	0.548	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216LR_PC1_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	5	6	6	0.04%	6.94%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	4.27	0.363	0	1	1	0	2	2,421.09	968	990	TRUE	
SNU216LR_PC1_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	5	6	6	0.04%	6.94%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	4.27	0.5	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216LR_PC1_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	5	6	6	0.04%	6.94%	DFTNEAPPAPLPDASASPLSPHRR	R	A	85.30%	2.8	0.146	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216LR_PC1_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	5	6	6	0.04%	6.94%	MEVDRSPGLPMSDLK	R	T	89.40%	2.61	0.124	0	1	0	0	2	1,754.79	614	628	TRUE	
SNU216LR_PC1_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	5	6	6	0.04%	6.94%	SKSNPDFLKK	K	D	90.80%	2.36	0.153	0	0	1	0	2	1,243.61	991	1000	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	V	95.00%	3.31	0.447	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.09	0.243	0	0	0	1	2	3,054.38	478	503	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	ASESSSEEKDDYEIFVK	R	V	95.00%	3.15	0.247	0	0	1	0	2	2,042.85	1779	1795	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	DIHLDLPSNNNLVSKDTEEPLPVKESDQTLA	K	E	95.00%	5.58	0.0489	0	0	0	1	2	4,121.07	1663	1699	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	6.35	0.558	0	1	2	0	2	2,461.21	1678	1699	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.36	0.335	0	0	1	1	2	3,457.49	2117	2144	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	ESDQTLAALLSPK	K	E	95.00%	2.29	0.266	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	QIAQSKEDDDVIVNKPHVSDEEEEEPPFYHH	K	L	94.80%	4.82	0.0694	0	0	0	1	2	4,112.86	2111	2144	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	SAASPVVSSMPER	R	A	95.00%	2.44	0.364	0	2	0	0	2	1,397.61	1766	1778	TRUE	
SNU216LR_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	8	11	13	0.08%	4.62%	SVESTSPEPSK	K	I	95.00%	1.63	0.286	1	1	0	0	2	1,227.51	278	288	TRUE	
SNU216LR_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	2.82%	HSDNPSEEGEVKDDGLEK	R	S	95.00%	2.68	0.338	0	1	0	0	2	2,144.81	1368	1385	TRUE	
SNU216LR_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	2.82%	KKQDSSDEDDDDDEAPK	K	R	95.00%	3.27	0.484	0	1	0	0	2	2,096.72	203	219	TRUE	
SNU216LR_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	2.82%	KQDSSDEDDDDDEAPK	K	R	95.00%	2.65	0.483	0	1	0	0	2	1,968.63	204	219	TRUE	
SNU216LR_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	2.82%	KQDSSDEDDDDDEAPKR	K	Q	95.00%	4.67	0.568	0	1	1	0	2	2,124.73	204	220	TRUE	
SNU216LR_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	2.82%	LKEEHGIELSSPR	R	H	95.00%	2.51	0.26	0	1	0	0	2	1,574.76	1355	1367	TRUE	
SNU216LR_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	2.82%	QDSSDEDDDDDEAPKR	K	Q	95.00%	3.07	0.608	0	1	0	0	2	1,996.63	205	220	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	99.80%	2	2	2	0.01%	0.56%	KLANDFPLDLSPVK	K	K	95.00%	3.82	0.423	0	1	0	0	2	1,636.83	678	691	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	99.80%	2	2	2	0.01%	0.56%	LANDFPLDLSPVK	K	K	95.00%	2.5	0.284	0	1	0	0	2	1,508.74	679	691	TRUE	
SNU216LR_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	7	8	10	0.06%	13.00%	ESAAPASPAPSPAPSPTPAPPQK	K	E	88.70%	2.89	0.0874	0	1	0	0	2	2,313.02	538	560	TRUE	
SNU216LR_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	7	8	10	0.06%	13.00%	LSASTASELSPK	R	S	95.00%	2.12	0.242	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216LR_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	7	8	10	0.06%	13.00%	PAPPQEESPSSEAK	R	S	83.70%	2.01	0.185	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216LR_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	7	8	10	0.06%	13.00%	QLPLEPESPSGQVGPR	K	P	95.00%	3.12	0.406	0	1	0	0	2	1,770.84	63	78	TRUE	
SNU216LR_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	7	8	10	0.06%	13.00%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.11	0.369	0	3	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	7	8	10	0.06%	13.00%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.07	0.368	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	7	8	10	0.06%	13.00%	TPETLLPFAEAEAFLK	R	K	95.00%	2.69	0.336	0	1	0	0	2	1,856.91	813	828	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	DSEDVSERDSDKEMATK	R	S	95.00%	3.4	0.4	0	2	1	0	2	2,021.80	111	127	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	EGVTPWASFKK	R	M	95.00%	1.94	0.234	0	1	0	0	2	1,329.62	604	614	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	GLAEVQQDGEAEEGATSDGEK	K	K	95.00%	4.09	0.472	0	3	1	0	2	2,199.89	581	601	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	KDEGEGAAGAGDHQDPSLGAGEAASK	K	E	95.00%	4.24	0.305	0	0	1	0	2	2,505.05	202	227	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	LSAEYEKVELPSEEQVSGSQGPSEEKPAPLAT	R	I	95.00%	4.96	0.262	0	0	0	1	2	4,213.96	369	406	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	5.19	0.543	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	RPSESDKEDELDK	R	V	95.00%	2.54	0.413	0	2	1	0	2	1,627.69	624	636	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	SAESPTSPVTSETGSTFKK	K	F	95.00%	3.49	0.0818	0	1	0	0	2	2,020.91	279	297	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	SATLSSTESTASEMQEEMK	K	G	95.00%	3.73	0.0678	0	1	0	0	2	2,206.82	639	657	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	4.36	0.435	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216LR_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	11	14	18	0.11%	11.50%	VLSKPPEGVVSEVEMLSSQER	K	M	95.00%	3.23	0.179	0	0	1	0	2	2,380.15	487	507	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	7	0.04%	4.30%	HFSTLKDDDLVEFSDLESEDDERPR	R	S	95.00%	4.4	0.19	0	0	0	1	2	3,074.33	1272	1296	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	7	0.04%	4.30%	NTSSDNSDVEVMPAQSPR	R	E	95.00%	3.79	0.37	0	2	0	0	2	2,013.82	412	429	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	7	0.04%	4.30%	SRPTPQDYEMRVSPSDTTPLVSR	R	S	90.60%	2.98	0.198	0	0	1	0	2	2,699.25	1899	1921	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	7	0.04%	4.30%	TASPLPLRPDAPVEK	R	S	95.00%	2.76	0.329	0	1	0	0	2	1,670.85	1858	1872	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	7	0.04%	4.30%	TASPLPLRPDAPVEKSPEETATQVPSLESLTLI	R	L	95.00%	5.26	0.201	0	0	1	1	2	3,581.84	1858	1890	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	ASGSENEGDYNPGRK	K	T	95.00%	2.67	0.363	0	1	0	0	2	1,660.66	1549	1563	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	ASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	3.93	0.336	0	0	1	0	2	3,210.37	1399	1427	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	FDSNEEDSASVFSPSFGLK	K	Q	95.00%	3.65	0.536	0	1	1	0	2	2,142.89	1464	1482	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	KASGSENEGDYNPGR	R	K	95.00%	2.95	0.398	0	1	0	0	2	1,740.63	1548	1562	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	KASGSENEGDYNPGRK	R	T	95.00%	3.91	0.477	0	1	2	0	2	1,788.76	1548	1563	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.62	0.489	0	1	3	1	2	3,017.35	1574	1599	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	5.49	0.23	0	1	1	0	2	2,875.18	1457	1482	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	SQDFGNLFSFPSYSQKSEDDSAK	K	F	87.90%	5.99	0	0	0	1	0	2	2,664.11	1441	1463	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	TSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	3.6	0.352	0	0	1	0	2	2,889.25	1575	1599	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	VKASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	5.88	0.548	0	0	4	0	2	3,437.53	1397	1427	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	VVEAVNSDSDSEFGIPK	K	K	95.00%	3.25	0.375	0	2	0	0	2	1,872.83	1516	1532	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	VVEAVNSDSDSEFGIPKK	K	T	95.00%	3.48	0.311	0	1	0	0	2	2,080.89	1516	1533	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	YTFDFSEEEDDDADDDDDDNNDLEELK	K	V	95.00%	3.73	0.475	0	0	1	0	2	3,308.16	1370	1396	TRUE	
SNU216LR_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	19	26	0.15%	9.87%	YTFDFSEEEDDDADDDDDDNNDLEELKVK	K	A	95.00%	6.51	0.618	0	0	1	0	2	3,535.32	1370	1398	TRUE	
SNU216LR_PC1_01	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	99.80%	2	2	2	0.01%	1.79%	GPSPSPVGSPASVAQSR	R	S	95.00%	2.8	0.218	0	1	0	0	2	1,660.77	694	710	TRUE	
SNU216LR_PC1_01	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	99.80%	2	2	2	0.01%	1.79%	SHHAPMSPGSSGGGGQPLAR	R	T	95.00%	3.64	0.471	0	0	1	0	2	1,967.85	357	376	TRUE	
SNU216LR_PC1_01	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	99.80%	1	1	2	0.01%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.88	0.421	0	0	2	0	2	2,541.20	7	31	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	6	6	0.04%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.66	0.44	0	1	1	1	2	1,836.88	210	226	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	6	6	0.04%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	4	0.353	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	6	6	0.04%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	3.02	0.333	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	GSDEENLDSETSASTESLLEER	R	A	95.00%	4.79	0.537	0	1	1	0	2	2,478.00	1992	2013	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	KKPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	4.71	0.305	0	0	1	0	2	2,321.10	1391	1413	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	KPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	3.5	0.408	0	0	1	0	2	2,193.01	1392	1413	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	LPELDPRGSDEENLDSETSASTESLLEER	R	A	95.00%	6.47	0.391	0	0	1	0	2	3,298.45	1985	2013	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	SPLEHSSPEK	R	E	95.00%	2.54	0.429	0	1	0	0	2	1,190.51	1109	1118	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	SPLEHSSPEKEAPSPEK	R	T	95.00%	3.98	0.453	0	2	2	0	2	2,008.83	1109	1125	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	VQEKPDSPGGSTQIQR	R	Y	95.00%	3.21	0.48	0	1	1	0	2	1,806.84	1284	1299	TRUE	
SNU216LR_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	8	10	14	0.08%	4.68%	VSPPAPGSAPETPEDK	R	S	95.00%	2.37	0.353	0	3	0	0	2	1,738.70	1260	1275	TRUE	
SNU216LR_PC1_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	13.80%	AGDLLEDSPK	R	R	87.30%	2.34	0.143	0	1	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC1_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	13.80%	AGDLLEDSPKRPK	R	E	95.00%	2.76	0.201	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC1_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	13.80%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	2.42	0.248	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC1_01	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	3	4	5	0.03%	5.96%	ALTQPSPVSTPSSVQFFLQEDDSADR	R	K	95.00%	3.12	0.243	0	0	1	0	2	2,902.31	125	150	TRUE	
SNU216LR_PC1_01	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	3	4	5	0.03%	5.96%	RRPGASPTGETPTIEEGEEDEDEASEAEGAR	R	A	95.00%	6.86	0.59	0	0	2	1	2	3,352.41	94	124	TRUE	
SNU216LR_PC1_01	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	3	4	5	0.03%	5.96%	TSPSSPAPLPHQEATPR	R	A	95.00%	3.34	0.365	0	1	0	0	2	1,852.86	155	171	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.89%	AETEKQSPPHGEAK	K	A	95.00%	2.32	0.266	0	0	1	0	2	1,588.70	46	59	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.89%	LSVSSNDTQESGNSSGPSPGAK	R	F	95.00%	5.03	0.0063	0	1	0	0	2	2,185.92	393	414	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.89%	TTIPHALLTWRPNSGETAPPPPSPVSEKPLDT	K	S	95.00%	4.4	0.452	0	0	0	1	2	3,943.00	1533	1568	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	6	9	9	0.05%	6.11%	ERGSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.69	0.604	0	0	1	1	2	3,198.54	273	302	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	6	9	9	0.05%	6.11%	GQSQLSNPTDDSWK	R	G	95.00%	2.89	0.434	0	1	0	0	2	1,642.67	1523	1536	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	6	9	9	0.05%	6.11%	GSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	5.97	0.569	0	1	1	1	2	2,913.40	275	302	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	6	9	9	0.05%	6.11%	HLDVDLDRQSLSSIDKNPSER	K	G	95.00%	3.66	0.336	0	0	0	1	2	2,504.18	1502	1522	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	6	9	9	0.05%	6.11%	HSQAQSKPTTPEKTDLTNGEHAR	K	S	95.00%	3.48	0.208	0	0	0	1	2	2,613.21	235	257	TRUE	
SNU216LR_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	6	9	9	0.05%	6.11%	QSLSSADNLESDAQGHQVAAR	R	F	95.00%	4.2	0.392	0	0	1	0	2	2,263.99	345	365	TRUE	
SNU216LR_PC1_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	99.80%	1	1	1	0.01%	2.60%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.05	0.338	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	7	0.04%	7.35%	AGAEDDEEKGEGTPR	K	E	95.00%	2.63	0.363	0	1	0	0	2	1,640.64	150	164	TRUE	
SNU216LR_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	7	0.04%	7.35%	ASDLEDEESAAR	R	G	95.00%	2.69	0.447	0	1	0	0	2	1,372.53	45	56	TRUE	
SNU216LR_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	7	0.04%	7.35%	GPSQEEEDNHSDEEDR	R	A	95.00%	3.22	0.402	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216LR_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	7	0.04%	7.35%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	3.69	0.291	0	0	1	0	2	2,464.94	57	77	TRUE	
SNU216LR_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	7	0.04%	7.35%	GPSQEEEDNHSDEEDRASEPKSQDQDSEVI	R	G	95.00%	2.88	0.174	0	0	0	2	2	4,112.52	57	90	TRUE	
SNU216LR_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	7	0.04%	7.35%	LGVSVSPSR	K	A	95.00%	2.66	0.298	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216LR_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	6	6	0.04%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	2.88	0.271	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216LR_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	6	6	0.04%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	4.56	0.394	0	1	1	0	2	2,128.94	8	26	TRUE	
SNU216LR_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	6	6	0.04%	6.97%	VAHEPVAPPEDKESESEAKVDGETASDSESR	R	A	95.00%	4.94	0.399	0	0	1	1	2	3,362.45	8	38	TRUE	
SNU216LR_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	6	6	0.04%	6.97%	VDGETASDSESR	K	A	95.00%	2.38	0.468	0	1	0	0	2	1,332.50	27	38	TRUE	
SNU216LR_PC1_01	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	3	0.02%	4.22%	AGSNEDPILAPSGTPPPTIPPDETFGGR	R	V	95.00%	4.88	0.526	0	0	1	0	2	2,870.33	644	671	TRUE	
SNU216LR_PC1_01	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	3	0.02%	4.22%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.69	0.333	0	2	0	0	2	1,606.75	478	493	TRUE	
SNU216LR_PC1_01	Diacylglycerol O-acyltransferase 1	IPI00015799,IPI00735571,IP	55,280.00	99.80%	1	1	1	0.01%	4.30%	TGSRPSSHGGGGPAAAEEEVR	R	D	95.00%	3.38	0.27	0	0	1	0	2	2,088.91	12	32	TRUE	
SNU216LR_PC1_01	DNA polymerase alpha catalytic subunit	IPI00220317,IPI00647655	165,917.30	100.00%	2	3	3	0.02%	3.28%	DGLLGDILQDLNTETPQITPPPVMILK	K	K	95.00%	4.87	0.372	0	0	1	0	2	3,011.54	156	182	TRUE	
SNU216LR_PC1_01	DNA polymerase alpha catalytic subunit	IPI00220317,IPI00647655	165,917.30	100.00%	2	3	3	0.02%	3.28%	SIGASPNPFSVHTATAVPSGK	R	I	95.00%	3.57	0.481	0	1	1	0	2	2,105.01	186	206	TRUE	
SNU216LR_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	3	4	5	0.03%	5.94%	AQAVSEEEEEEEGK	K	S	95.00%	3.14	0.363	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216LR_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	3	4	5	0.03%	5.94%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	2.49	0.395	0	2	1	0	2	2,129.88	78	96	TRUE	
SNU216LR_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	3	4	5	0.03%	5.94%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.98	0.401	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	2	2	0.01%	3.42%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	2.88	0.161	0	1	0	0	2	2,046.92	510	526	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	2	2	0.01%	3.42%	KKSTSLEPVER	R	S	95.00%	2.61	0.295	0	1	0	0	2	1,353.68	370	380	TRUE	
SNU216LR_PC1_01	nucleoporin 160kDa	IPI00221235,IPI00748807	162,125.00	99.80%	1	2	2	0.01%	1.81%	LIRPEYAWIVQPVSGAVYDRPGASPK	R	R	95.00%	6.24	0.399	0	0	1	1	2	2,949.50	1134	1159	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	AAESLTAIPEPASPQLLETPIHASQIQK	R	V	95.00%	4.98	0.475	0	0	1	0	2	3,020.53	1763	1790	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	AHSEKDQPPFGDSDDSVEADK	R	S	95.00%	3.44	0.412	0	0	1	0	2	2,353.95	483	503	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	AHSEKDQPPFGDSDDSVEADKSSPGIHLER	R	S	95.00%	5.76	0.124	0	0	0	2	2	3,410.42	483	512	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	4.05	0.322	0	0	2	0	2	2,433.10	784	805	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	AQPFGFIDSDTDAEEER	R	I	95.00%	3.22	0.477	0	1	0	0	2	2,006.80	321	337	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	AQPFGFIDSDTDAEEERIPATPVVIPMK	R	K	84.50%	3.42	0.108	0	0	1	0	2	3,153.49	321	348	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	AQPFGFIDSDTDAEEERIPATPVVIPMKK	R	R	95.00%	2.98	0.246	0	0	1	1	2	3,281.58	321	349	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	DSDTDVEEEELPVENR	R	E	95.00%	3.79	0.523	0	1	0	0	2	1,955.78	452	467	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	GPGAPGLAHLQESQAGSDTDVEEGKAPQA	R	S	95.00%	5.5	0.438	0	0	1	0	2	3,463.64	360	393	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	LLLAEDSEEEVDFLSER	R	R	95.00%	3.89	0.451	0	1	1	0	2	2,073.93	162	178	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	SQPPGEDSDTDVDDDSRPPGRPAEVHLER	R	A	93.00%	2.58	0.251	0	0	1	0	2	3,253.40	292	320	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	SQTTTERDSDTDVEEEELPVENR	R	E	95.00%	3.88	0.0713	0	1	0	0	2	2,839.12	445	467	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTV	R	G	95.00%	6.16	0.0343	0	0	1	0	2	3,905.87	1235	1270	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	SSVKTPEPVVPTAPEPHPTTSTDQPVTPK	R	L	95.00%	4.59	0.388	0	0	1	1	2	3,104.52	1604	1632	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	SSVKTPESIVPIAPELQPSTSR	R	N	95.00%	3.61	0.275	0	0	1	0	2	2,403.22	1563	1584	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	SSVKTPETVVPAAPELQPSTSTDQPVTPEPTS	R	A	95.00%	5.42	0.503	0	0	1	0	2	3,513.70	1522	1554	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	SSVKTPETVVPTAPELQASASTDQPVTSEPTS	R	T	86.50%	6.08	0.0008	0	0	1	0	2	3,477.66	1481	1513	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	18	21	23	0.14%	19.10%	TPKPVEPAASDLEPFTPTDQSVTPEAIAQGG	K	T	94.60%	5.78	0.0348	0	0	1	0	2	3,573.70	1649	1682	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	2	0.01%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.89	0.457	0	1	0	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	2	0.01%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.38	0.237	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC1_01	acetyl-Coenzyme A carboxylase alpha isoform 1	IPI00396015,IPI00472339	265,556.40	99.80%	1	2	2	0.01%	0.84%	FIIGSVSEDNSEDEISNLVK	R	L	95.00%	4.49	0.386	0	1	1	0	2	2,275.04	19	38	TRUE	
SNU216LR_PC1_01	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	AQNEFKDEAQSLSHSPK	R	R	95.00%	5.15	0.468	0	0	1	0	2	1,995.88	507	523	TRUE	
SNU216LR_PC1_01	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	RVPTTLSIKPLGAISPVLNR	K	K	95.00%	4.02	0.565	0	0	1	0	2	2,212.26	524	543	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	DKDVTLSPVK	K	A	95.00%	2.71	0.279	0	1	0	0	2	1,181.58	1525	1534	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	3.94	0.317	0	0	1	0	2	2,619.03	2774	2794	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	NTAAEEHVAQGDATLEHSTNLDSSPSLSSV	K	E	84.80%	5.81	0.0058	0	0	1	0	2	3,812.80	1258	1293	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	QHYLSSEDEPDDNPDVLDSR	K	I	95.00%	3.52	0.4	0	0	1	0	2	2,490.93	2775	2794	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	RTSTPVIMEGVQEETDTR	R	D	95.00%	4.15	0.514	0	0	1	0	2	2,128.96	657	674	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	SSVDLEESSTK	R	S	95.00%	2.43	0.267	0	1	0	0	2	1,261.52	537	547	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	TDTGIVTVEQSPSSSK	K	L	95.00%	3.67	0.318	0	1	0	0	2	1,715.77	2895	2910	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	TSVATSTEGKDKDVTLSPVK	K	A	95.00%	3.82	0.394	0	1	1	0	2	2,143.05	1515	1534	TRUE	
SNU216LR_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	10	11	0.07%	4.46%	YYSDSDDELTVEQR	K	R	95.00%	3.16	0.422	0	2	0	0	2	1,799.70	480	493	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	DGVLTLANNVTPAK	K	D	95.00%	3.02	0.343	0	1	0	0	2	1,492.74	589	602	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.6	0.202	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	DMESPTKLDVTLAK	K	D	95.00%	3.01	0.384	0	4	1	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	DMSPLSETEMALGK	K	D	95.00%	3.12	0.364	0	6	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.96	0.508	0	0	4	0	2	3,106.50	533	560	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	DVTPPPETEVVLIK	K	N	95.00%	2.97	0.224	0	1	1	0	2	1,616.82	547	560	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	ETERASPIKMDLAPSK	K	D	95.00%	2.89	0.177	0	2	0	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	4.09	0.243	0	0	2	1	2	3,569.64	628	661	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	7.7	0.0622	0	0	1	0	2	3,697.73	628	662	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	14	27	0.16%	12.60%	RASPSKPASAPASR	K	S	95.00%	2.94	0.411	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	6	6	6	0.04%	5.22%	AQSNGSGNGSDSEMDTSSLER	K	G	95.00%	4.6	0.138	0	1	0	0	2	2,208.83	1125	1145	TRUE	
SNU216LR_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	6	6	6	0.04%	5.22%	KVSIVSKPVLYR	R	T	95.00%	3.18	0.393	0	0	1	0	2	1,468.83	1148	1159	TRUE	
SNU216LR_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	6	6	6	0.04%	5.22%	NEEENIYSVPHDSTQGK	R	I	95.00%	3.44	0.169	0	0	1	0	2	2,026.84	1099	1115	TRUE	
SNU216LR_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	6	6	6	0.04%	5.22%	NQKNSLSDPNIDR	R	I	95.00%	3.14	0.393	0	1	0	0	2	1,580.71	585	597	TRUE	
SNU216LR_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	6	6	6	0.04%	5.22%	TSFSVGSDDELGPIR	R	K	95.00%	2.79	0.32	0	1	0	0	2	1,659.73	1173	1187	TRUE	
SNU216LR_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	6	6	6	0.04%	5.22%	TSFSVGSDDELGPIRK	R	K	95.00%	2.59	0.261	0	1	0	0	2	1,787.82	1173	1188	TRUE	
SNU216LR_PC1_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	99.80%	2	2	2	0.01%	6.82%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	3.08	0.418	0	0	1	0	2	3,275.31	348	375	TRUE	
SNU216LR_PC1_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	99.80%	2	2	2	0.01%	6.82%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	5.08	0.451	0	0	1	0	2	3,172.29	186	212	TRUE	
SNU216LR_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	9	0.05%	8.38%	EVAATEEDVTRLPSPTSPFSSLSQDQAATSK	K	A	95.00%	6.9	0.0827	0	0	2	0	2	3,329.54	641	671	TRUE	
SNU216LR_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	9	0.05%	8.38%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	3.55	0.16	0	2	0	0	2	2,128.98	652	671	TRUE	
SNU216LR_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	9	0.05%	8.38%	RGESLDNLDSPR	R	S	95.00%	2.73	0.391	0	1	0	0	2	1,438.63	1173	1184	TRUE	
SNU216LR_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	9	0.05%	8.38%	SASVNKEPVSLPGIMR	R	R	95.00%	3.45	0.44	0	0	1	0	2	1,764.87	1157	1172	TRUE	
SNU216LR_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	9	0.05%	8.38%	SHSPSASQSGSQLR	R	N	95.00%	2.35	0.392	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	9	0.05%	8.38%	TSTTGVATTQSPTPR	K	S	95.00%	3.21	0.286	0	1	0	0	2	1,584.73	1242	1256	TRUE	
SNU216LR_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	9	0.05%	8.38%	VTTEIQLPSQSPVEEQSPASLSSLR	R	S	95.00%	4.6	0.0085	0	1	0	0	2	2,763.35	523	547	TRUE	
SNU216LR_PC1_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	1	1	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	2.81	0.251	0	0	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC1_01	Isoform 1 of ATPase family AAA domain-containir	IPI00170548	158,558.10	100.00%	3	3	3	0.02%	4.68%	IESDTEETQDTSVDHNETGNTGESSVEENEK	K	Q	95.00%	2.62	0.363	0	0	1	0	2	3,490.38	1198	1228	TRUE	
SNU216LR_PC1_01	Isoform 1 of ATPase family AAA domain-containir	IPI00170548	158,558.10	100.00%	3	3	3	0.02%	4.68%	KPNIFYSGPASPARPR	R	Y	95.00%	3.64	0.213	0	1	0	0	2	1,837.91	317	332	TRUE	
SNU216LR_PC1_01	Isoform 1 of ATPase family AAA domain-containir	IPI00170548	158,558.10	100.00%	3	3	3	0.02%	4.68%	QNSTLVGDKRSDPEQNEK	K	L	95.00%	2.68	0.188	0	0	1	0	2	2,124.96	1129	1146	TRUE	
SNU216LR_PC1_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	ATEDGEEDEVSAGEK	K	E	95.00%	3.04	0.329	0	1	0	0	2	1,645.61	1425	1439	TRUE	
SNU216LR_PC1_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	SKATEDGEEDEVSAGEK	K	E	95.00%	3	0.38	0	1	0	0	2	1,860.74	1423	1439	TRUE	
SNU216LR_PC1_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	SQNSQESTADESEDDMSSQASK	K	S	95.00%	4.95	0.227	0	1	0	0	2	2,440.89	1401	1422	TRUE	
SNU216LR_PC1_01	Chromosome 10 open reading frame 18	IPI00400873,IPI00479893	268,842.80	99.80%	1	2	2	0.01%	0.86%	SRSPLLVTVVESDPRPQGQPR	R	R	95.00%	2.63	0.32	0	0	1	1	2	2,398.22	2035	2055	TRUE	
SNU216LR_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.41%	AAHVPENSDTEQDVLTVKPVR	R	K	95.00%	4.65	0.555	0	0	1	0	2	2,385.14	1363	1383	TRUE	
SNU216LR_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.41%	NRENSPSSQSAGLSSINK	R	E	95.00%	2.92	0.158	0	0	1	0	2	1,955.88	1275	1292	TRUE	
SNU216LR_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.41%	RHSAQLSSDHIPLMHLAK	R	D	95.00%	3.61	0.278	0	0	1	1	2	2,234.13	935	953	TRUE	
SNU216LR_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.41%	SEMIEKPLFDFSLITTGIQEPQTDETRNSPTQ	K	T	80.80%	5.82	0.0008	0	0	0	1	2	3,860.83	372	404	TRUE	
SNU216LR_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.41%	SLSESSVIMDR	R	A	95.00%	2.43	0.254	0	1	0	0	2	1,303.56	859	869	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	3	5	6	0.04%	4.38%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.56	0.554	0	2	1	0	2	1,868.75	1461	1477	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	3	5	6	0.04%	4.38%	NSKSPEEHLEEMMK	K	M	95.00%	4.39	0.413	0	1	1	0	2	1,768.73	358	371	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	3	5	6	0.04%	4.38%	RSDVQEESEGSDTDDNKDSAAFEDNEVQD	R	L	95.00%	6.24	0.0548	0	0	1	0	2	4,037.56	698	731	TRUE	
SNU216LR_PC1_01	CAD protein	IPI00301263	242,982.50	100.00%	4	7	7	0.04%	2.43%	ASDPGLPAEEPK	R	E	95.00%	1.98	0.376	0	1	0	0	2	1,290.56	1858	1869	TRUE	
SNU216LR_PC1_01	CAD protein	IPI00301263	242,982.50	100.00%	4	7	7	0.04%	2.43%	IHRASDPGLPAEEPK	R	E	95.00%	3.48	0.307	0	0	1	0	2	1,696.81	1855	1869	TRUE	
SNU216LR_PC1_01	CAD protein	IPI00301263	242,982.50	100.00%	4	7	7	0.04%	2.43%	IHRASDPGLPAEEPKEK	R	S	95.00%	3.85	0.317	0	1	1	1	2	1,953.94	1855	1871	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	CAD protein	IPI00301263	242,982.50	100.00%	4	7	7	0.04%	2.43%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	5.53	0.431	0	0	1	1	2	4,052.11	1898	1934	TRUE	
SNU216LR_PC1_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	3	3	0.02%	1.49%	RDSDGVDGFEAEGK	R	K	95.00%	4.19	0.535	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216LR_PC1_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	3	3	0.02%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.1	0.316	0	0	1	0	2	1,689.71	1052	1066	TRUE	
SNU216LR_PC1_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	3	3	0.02%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	3.85	0.487	0	1	0	0	2	1,717.72	1051	1065	TRUE	
SNU216LR_PC1_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.03%	AEEEHLSSSGGLAK	R	N	94.80%	2.62	0.145	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216LR_PC1_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.03%	ATSFEESER	R	K	95.00%	2.41	0.276	0	1	0	0	2	1,135.43	947	955	TRUE	
SNU216LR_PC1_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.03%	GNFSPLELDNVLLK	K	N	95.00%	2.61	0.223	0	1	0	0	2	1,638.81	187	200	TRUE	
SNU216LR_PC1_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.03%	HLNSSQPSGFGPANSLEDVVR	K	L	95.00%	5.69	0.526	0	0	1	0	2	2,291.05	485	505	TRUE	
SNU216LR_PC1_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.03%	SLFFSSKEDIHTSESESK	K	I	95.00%	4.6	0.366	0	0	1	0	2	2,137.93	925	942	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	2	2	2	0.01%	2.01%	AAQQQQPSASPR	R	A	95.00%	2.37	0.191	0	1	0	0	2	1,348.60	1444	1455	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	2	2	2	0.01%	2.01%	YIEGLSAESNSISKWDQTLAAR	K	R	95.00%	3.11	0.152	0	0	1	0	2	2,599.15	1613	1634	TRUE	
SNU216LR_PC1_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	3	3	0.02%	1.63%	AQGEPVAGHESPK	R	I	95.00%	3.06	0.417	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216LR_PC1_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	3	3	0.02%	1.63%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.31	0.513	0	1	1	0	2	2,016.94	789	806	TRUE	
SNU216LR_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	6	9	10	0.06%	11.10%	ASEAASPLPDSPGDKLVIVK	K	F	92.00%	3.33	0.119	0	0	1	0	2	2,074.05	1144	1163	TRUE	
SNU216LR_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	6	9	10	0.06%	11.10%	FPGDQVVNGAGPELSTGPSPGSPTLDIDQS	R	L	95.00%	6.18	0.0853	0	0	2	0	2	3,772.77	669	704	TRUE	
SNU216LR_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	6	9	10	0.06%	11.10%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.64	0.312	0	1	1	0	2	1,852.82	646	663	TRUE	
SNU216LR_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	6	9	10	0.06%	11.10%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	4.27	0.462	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216LR_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	6	9	10	0.06%	11.10%	SSSDPGIPGGPQAIPATNSPDHSDHTLSVSS	K	T	83.00%	5.88	0.0022	0	0	0	1	2	4,064.79	361	401	TRUE	
SNU216LR_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	6	9	10	0.06%	11.10%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.46	0.519	0	1	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC1_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	2	2	0.01%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	4.67	0.501	0	0	1	0	2	2,873.37	59	85	TRUE	
SNU216LR_PC1_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	2	2	0.01%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	94.50%	3.99	0.009	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	12	16	0.09%	5.81%	AGAGMITQHSSNASPINR	R	I	95.00%	2.55	0.351	0	2	1	0	2	1,907.84	989	1006	TRUE	
SNU216LR_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	12	16	0.09%	5.81%	DGQDAIAQSPEK	K	E	95.00%	2.72	0.403	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216LR_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	12	16	0.09%	5.81%	DGQDAIAQSPEKESK	K	D	95.00%	3.57	0.407	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	12	16	0.09%	5.81%	DGQDAIAQSPEKESKDYEMNANHK	K	D	95.00%	5.96	0.444	0	0	1	1	2	2,785.18	281	304	TRUE	
SNU216LR_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	12	16	0.09%	5.81%	ISSKSPGHMVILDQTK	R	G	95.00%	3.08	0.397	0	1	3	0	2	1,900.86	549	564	TRUE	
SNU216LR_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	12	16	0.09%	5.81%	RISSKSPGHMVILDQTK	K	G	95.00%	3.57	0.306	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216LR_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	12	16	0.09%	5.81%	SPGHMVILDQTK	K	G	95.00%	2.92	0.357	0	1	1	0	2	1,405.65	553	564	TRUE	
SNU216LR_PC1_01	Isoform 1 of GTPase-activating Rap/Ran-GAP dor	IPI00472044	231,687.40	100.00%	2	2	2	0.01%	1.90%	HFSQSEETGNEVFGALNEEQPLPR	R	S	95.00%	4.41	0.475	0	0	1	0	2	2,795.23	818	841	TRUE	
SNU216LR_PC1_01	Isoform 1 of GTPase-activating Rap/Ran-GAP dor	IPI00472044	231,687.40	100.00%	2	2	2	0.01%	1.90%	SSSTSDILEPFTVER	R	A	95.00%	2.97	0.242	0	1	0	0	2	1,747.78	842	856	TRUE	
SNU216LR_PC1_01	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	94.30%	5.88	0.0303	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	DKASPEPEKDFSEK	K	A	95.00%	3.03	0.351	0	1	1	0	2	1,686.73	684	697	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	ELSESVQQQSTPVPLISPK	K	R	95.00%	2.73	0.264	0	0	1	0	2	2,147.06	550	568	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	4.17	0.501	0	1	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	RISLSDMPR	R	S	89.20%	2.05	0.16	0	1	0	0	2	1,154.54	442	450	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	SPMSTNSSVHTGSDVEQDAEK	R	K	95.00%	3.1	0.275	0	0	1	0	2	2,285.92	451	471	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.24	0.295	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	STSPASEKADPGAVK	K	D	95.00%	2.68	0.232	0	1	0	0	2	1,604.66	669	683	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	TPPSTTVGSHSPPETPVLTR	K	S	84.50%	3.46	0.0929	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216LR_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	11	11	0.07%	9.08%	VKLNFDMTASPK	K	I	95.00%	2.06	0.275	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216LR_PC1_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	5	5	0.03%	4.50%	EAALPPVSPLK	R	A	95.00%	2.54	0.304	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216LR_PC1_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	5	5	0.03%	4.50%	EAEEESDHN	R	-	95.00%	1.28	0.4	0	1	0	0	2	1,139.35	1592	1600	TRUE	
SNU216LR_PC1_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	5	5	0.03%	4.50%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	R	P	95.00%	4.74	0.416	0	0	1	0	2	3,174.59	306	333	TRUE	
SNU216LR_PC1_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	5	5	0.03%	4.50%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	4.11	0.269	0	0	1	1	2	2,623.30	1073	1096	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.66	0.472	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	TGSESSQTGTSTTSSR	R	N	94.00%	3.45	0.0539	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	AEPSEVDMNSPK	K	S	92.40%	2.18	0.179	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	EEPSQNDISPK	K	T	95.00%	2.2	0.253	0	1	0	0	2	1,323.55	81	91	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	3.86	0.475	0	2	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	KEEPSQNDISPK	K	T	95.00%	2.92	0.245	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.77	0.465	0	2	2	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.58	0.428	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	4.29	0.388	0	2	1	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	16	0.09%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	2.96	0.373	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216LR_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.05%	7.18%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	3.06	0.249	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216LR_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.05%	7.18%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.17	0.385	0	0	1	0	2	2,015.97	536	553	TRUE	
SNU216LR_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.05%	7.18%	GSDDAPYSPTAR	K	V	95.00%	2.7	0.332	0	1	0	0	2	1,316.52	898	909	TRUE	
SNU216LR_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.05%	7.18%	KGSDDAPYSPTAR	R	V	95.00%	2.51	0.302	0	2	0	0	2	1,444.61	897	909	TRUE	
SNU216LR_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.05%	7.18%	LEKSPLAGNKDNK	K	F	95.00%	2.18	0.288	0	1	1	0	2	1,493.74	622	634	TRUE	
SNU216LR_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.05%	7.18%	RPSASSPNNNTAAK	R	G	95.00%	3.11	0.429	0	1	0	0	2	1,494.67	1059	1072	TRUE	
SNU216LR_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.05%	7.18%	SRESASPTIPNLDLLEAHTK	K	E	95.00%	3.34	0.252	0	0	1	0	2	2,259.10	534	553	TRUE	
SNU216LR_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	7	9	0.05%	4.53%	ADHRSSPNVANQPPSPGGK	R	S	95.00%	3.54	0.474	0	1	1	0	2	2,075.87	1167	1185	TRUE	
SNU216LR_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	7	9	0.05%	4.53%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	3.59	0.243	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216LR_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	7	9	0.05%	4.53%	SQDADSPGSSGAPENLTFK	K	E	95.00%	4.05	0.158	0	1	0	0	2	1,987.83	1784	1802	TRUE	
SNU216LR_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	7	9	0.05%	4.53%	SSPNVANQPPSPGGK	R	S	95.00%	3.45	0.441	0	3	0	0	2	1,516.68	1171	1185	TRUE	
SNU216LR_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	7	9	0.05%	4.53%	TQVLSPDSLFTAK	K	F	95.00%	2.19	0.296	0	1	0	0	2	1,486.72	1727	1739	TRUE	
SNU216LR_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	7	9	0.05%	4.53%	TSSVVTLEVAK	R	Q	95.00%	2.32	0.305	1	0	0	0	2	1,213.61	1080	1090	TRUE	
SNU216LR_PC1_01	Midasin	IPI00167941	632,826.30	100.00%	3	4	4	0.02%	1.14%	AEENTDQASPQEDYAGFER	K	L	95.00%	4.75	0.585	0	1	1	0	2	2,236.87	4530	4548	TRUE	
SNU216LR_PC1_01	Midasin	IPI00167941	632,826.30	100.00%	3	4	4	0.02%	1.14%	MHDGELEEQEEDDEKSDSEGGDLDK	K	H	95.00%	5.28	0.643	0	0	1	0	2	2,916.09	4737	4761	TRUE	
SNU216LR_PC1_01	Midasin	IPI00167941	632,826.30	100.00%	3	4	4	0.02%	1.14%	NGGEDTDNEEGEEENPLEIK	K	E	95.00%	4.64	0.428	0	1	0	0	2	2,297.89	4893	4912	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	2.81	0.265	0	0	1	0	2	2,279.98	667	686	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	GLAGPPASPGK	K	A	95.00%	2.43	0.391	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.64	0.483	0	1	0	0	2	1,772.77	403	420	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	KLQLERPVSPETQADLQR	R	N	95.00%	3.5	0.425	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216LR_PC1_01	Protein kinase C iota type	IPI00016639	67,259.10	100.00%	2	3	3	0.02%	9.03%	ASSSLGLQDFDLLR	K	V	95.00%	3.12	0.374	0	1	0	0	2	1,601.76	236	249	TRUE	
SNU216LR_PC1_01	Protein kinase C iota type	IPI00016639	67,259.10	100.00%	2	3	3	0.02%	9.03%	QVVPPFKPNISGEFGLDNFDSQFTNEPVQL	K	K	95.00%	4.28	0.444	0	0	1	1	2	4,470.08	525	563	TRUE	
SNU216LR_PC1_01	SCC-112 protein	IPI00303063	150,835.50	100.00%	4	4	4	0.02%	3.74%	AAVGQESPGGLEAGNAK	R	A	95.00%	3.41	0.463	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216LR_PC1_01	SCC-112 protein	IPI00303063	150,835.50	100.00%	4	4	4	0.02%	3.74%	EQSSEAAETGVSENEENPVR	R	I	95.00%	3.54	0.427	0	1	0	0	2	2,241.91	1184	1203	TRUE	
SNU216LR_PC1_01	SCC-112 protein	IPI00303063	150,835.50	100.00%	4	4	4	0.02%	3.74%	SQDVDQLRDIK	R	E	79.80%	1.99	0.231	0	1	0	0	2	1,396.65	1018	1028	TRUE	
SNU216LR_PC1_01	SCC-112 protein	IPI00303063	150,835.50	100.00%	4	4	4	0.02%	3.74%	SREQSSEAAETGVSENEENPVR	R	I	95.00%	3.97	0.321	0	0	1	0	2	2,485.05	1182	1203	TRUE	
SNU216LR_PC1_01	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	99.80%	2	3	3	0.02%	1.50%	APLKPYPVSPSDK	K	V	95.00%	2.6	0.317	0	1	1	0	2	1,478.73	1043	1055	TRUE	
SNU216LR_PC1_01	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	99.80%	2	3	3	0.02%	1.50%	APLKPYPVSPSDKVLIQEK	K	T	95.00%	3.41	0.394	0	0	1	0	2	2,189.16	1043	1061	TRUE	
SNU216LR_PC1_01	Thioredoxin domain-containing protein 1 precursi	IPI00395887	31,791.90	99.80%	2	2	2	0.01%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	3.78	0.284	0	0	1	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC1_01	Thioredoxin domain-containing protein 1 precursi	IPI00395887	31,791.90	99.80%	2	2	2	0.01%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.33	0.481	0	1	0	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC1_01	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	4	0.02%	2.27%	EKKPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.05	0.363	0	0	0	1	2	2,717.25	518	542	TRUE	
SNU216LR_PC1_01	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	4	0.02%	2.27%	KPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	3.88	0.389	0	0	1	0	2	2,460.11	520	542	TRUE	
SNU216LR_PC1_01	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	4	0.02%	2.27%	SSPVKKPSLLK	K	A	95.00%	2.13	0.242	0	0	1	0	2	1,263.71	556	566	TRUE	
SNU216LR_PC1_01	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	4	0.02%	2.27%	TGASSLLNKSSPVK	R	K	95.00%	3	0.393	0	1	0	0	2	1,468.74	547	560	TRUE	
SNU216LR_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	6	8	8	0.05%	8.54%	AESGDSLGSEDRDLLYSIDAYR	R	S	95.00%	4.03	0.458	0	1	1	0	2	2,512.09	656	677	TRUE	
SNU216LR_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	6	8	8	0.05%	8.54%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	3.76	0.582	0	1	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	6	8	8	0.05%	8.54%	ATSPVKSTTSITDAK	K	S	84.30%	3.45	0.0126	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	6	8	8	0.05%	8.54%	DKSTTPGGTGIKPFLER	K	F	95.00%	3.94	0.416	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216LR_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	6	8	8	0.05%	8.54%	NKASPQSEFMPSK	K	G	95.00%	3.1	0.367	0	1	0	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	6	8	8	0.05%	8.54%	SDESPKPGK	R	F	94.50%	1.56	0.342	0	1	0	0	2	1,024.43	639	647	TRUE	
SNU216LR_PC1_01	Drebrin	IPI00003406,IPI00295624	71,293.30	99.10%	2	2	2	0.01%	4.17%	MAPTPIPTRSPSDSSTASTPVAEQIER	R	A	87.10%	5.31	0.0407	0	0	1	0	2	2,906.36	327	353	TRUE	
SNU216LR_PC1_01	Drebrin	IPI00003406,IPI00295624	71,293.30	99.10%	2	2	2	0.01%	4.17%	SPSDSSTASTPVAEQIER	R	A	93.00%	2.74	0.124	0	1	0	0	2	1,941.84	336	353	TRUE	
SNU216LR_PC1_01	Cyclin G-associated kinase	IPI00298949	143,192.40	99.60%	2	2	2	0.01%	4.96%	ESESALMEDRDESEVSDEGGSPISSEGQEPR	K	A	95.00%	4.33	0.143	0	0	1	0	2	3,498.34	814	844	TRUE	
SNU216LR_PC1_01	Cyclin G-associated kinase	IPI00298949	143,192.40	99.60%	2	2	2	0.01%	4.96%	QPGSTAQVDAGAGSPEAEPTDSDSPPSSSA	R	F	92.40%	4.36	0.0807	0	0	1	0	2	3,373.36	757	790	TRUE	
SNU216LR_PC1_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	99.80%	2	2	2	0.01%	5.35%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	2.99	0.223	0	0	1	0	2	2,253.98	444	462	TRUE	
SNU216LR_PC1_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	99.80%	2	2	2	0.01%	5.35%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.29	0.36	0	0	1	0	2	2,484.21	363	384	TRUE	
SNU216LR_PC1_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00163851,IPI00456685	186,842.60	100.00%	2	2	2	0.01%	2.67%	HERPAGPGTPPPDSGPLAK	R	D	95.00%	2.62	0.383	0	1	0	0	2	1,960.93	659	677	TRUE	
SNU216LR_PC1_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00163851,IPI00456685	186,842.60	100.00%	2	2	2	0.01%	2.67%	MPLVEQSPEDSGGQDYVETVIPSNR	K	L	95.00%	4.36	0.345	0	0	1	0	2	2,827.25	545	569	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	3	3	0.02%	1.16%	HTIIPAKSPEK	R	C	95.00%	2.34	0.467	0	1	1	0	2	1,300.67	1908	1918	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	3	3	0.02%	1.16%	SRSLSQIHEAAVR	R	M	95.00%	2.59	0.275	0	0	1	0	2	1,533.75	727	739	TRUE	
SNU216LR_PC1_01	Nardilysin	IPI00243221,IPI00747052	139,288.40	100.00%	2	3	3	0.02%	2.05%	LGADESEEEGR	R	R	95.00%	2.04	0.337	0	1	0	0	2	1,271.48	81	91	TRUE	
SNU216LR_PC1_01	Nardilysin	IPI00243221,IPI00747052	139,288.40	100.00%	2	3	3	0.02%	2.05%	RGSLSNAGDPEIVK	R	S	95.00%	3.19	0.257	0	1	1	0	2	1,522.73	92	105	TRUE	
SNU216LR_PC1_01	E1A-associated protein p300	IPI00020985	264,138.50	100.00%	2	3	3	0.02%	1.24%	STELKTEIKEEEDQPSTSATQSSPAPGQSK	K	K	95.00%	7.04	0.0349	0	0	1	0	2	3,270.49	1016	1045	TRUE	
SNU216LR_PC1_01	E1A-associated protein p300	IPI00020985	264,138.50	100.00%	2	3	3	0.02%	1.24%	TEIKEEEDQPSTSATQSSPAPGQSK	K	K	95.00%	6.36	0.0408	0	1	1	0	2	2,712.19	1021	1045	TRUE	
SNU216LR_PC1_01	Cleavage and polyadenylation specificity factor, 1	IPI00026219	160,885.90	100.00%	1	1	2	0.01%	2.70%	SGPEAEGLGSETSPTVDDEEEMLYGDSGSLF	R	R	95.00%	7.57	0.012	0	0	2	0	2	4,169.75	725	763	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	95.00%	3.08	0.2	0	0	2	0	2	2,545.18	1069	1093	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	3.4	0.376	0	0	1	0	2	2,811.39	664	689	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.82	0.382	0	0	3	0	2	2,380.14	381	401	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	3.61	0.447	0	0	2	0	2	2,673.28	1068	1093	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	LYNSEESRPYTNK	R	V	87.90%	2.6	0.142	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	NSSPAPPQPAPGK	K	V	95.00%	2.83	0.412	0	1	0	0	2	1,327.60	1081	1093	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	QDDSPSGASYGQDYDLSPSR	K	S	89.10%	3.46	0.0287	0	1	0	0	2	2,304.83	233	252	TRUE	
SNU216LR_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	12	0.07%	8.39%	RQSVSPPYKEPSAYQSSTR	R	S	95.00%	3.47	0.309	0	0	1	0	2	2,328.01	272	290	TRUE	
SNU216LR_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.44%	AFMESPKQILDSAASLTGSK	K	R	95.00%	3.04	0.34	0	0	1	0	2	2,161.02	1675	1694	TRUE	
SNU216LR_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.44%	ELFQTPDHTEESTTDDKTTK	K	I	95.00%	3.42	0.339	0	0	1	0	2	2,403.02	2081	2100	TRUE	
SNU216LR_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.44%	MTSLETKTSDTETEPSK	K	T	95.00%	4.08	0.0448	0	1	0	0	2	1,964.84	851	867	TRUE	
SNU216LR_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.44%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.39	0.488	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.44%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	4.61	0.394	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216LR_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.44%	TPVQYSQQQNSPQK	K	H	95.00%	3.14	0.29	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.44%	TSGETTQTHTEPTGDSK	R	S	80.10%	3.25	0.0205	0	1	0	0	2	1,856.75	2504	2520	TRUE	
SNU216LR_PC1_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	4	4	4	0.02%	3.96%	AASPYSQRPASPTAIR	R	R	95.00%	2.46	0.299	0	0	1	0	2	1,752.84	271	286	TRUE	
SNU216LR_PC1_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	4	4	4	0.02%	3.96%	SAVSPDLHITPIYEGR	R	T	95.00%	2.38	0.276	0	1	0	0	2	1,834.87	403	418	TRUE	
SNU216LR_PC1_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	4	4	4	0.02%	3.96%	VASPSQGQVGSSSPK	R	R	90.60%	2.37	0.19	0	1	0	0	2	1,495.68	325	339	TRUE	
SNU216LR_PC1_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	4	4	4	0.02%	3.96%	VASPSQGQVGSSSPKR	R	S	95.00%	3.78	0.241	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216LR_PC1_01	VPRBP protein	IPI00181396,IPI00329528	168,940.10	99.80%	1	2	2	0.01%	1.60%	HLPSPPTLDSIITEYLR	R	E	95.00%	3.46	0.416	0	1	1	0	2	2,032.02	996	1012	TRUE	
SNU216LR_PC1_01	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	4	6	0.04%	3.17%	AASSPSNPAALPVASDSSPMGSK	K	T	95.00%	4.26	0.33	0	2	0	0	2	2,208.98	1056	1078	TRUE	
SNU216LR_PC1_01	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	4	6	0.04%	3.17%	GAGGSPVGVEEGLVNVGTGQK	K	L	95.00%	3.18	0.47	0	1	0	0	2	1,991.94	1321	1341	TRUE	
SNU216LR_PC1_01	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	4	6	0.04%	3.17%	TKETDSPSTPGKDQR	K	S	95.00%	3.51	0.356	0	2	1	0	2	1,726.76	1079	1093	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	3	0.02%	1.57%	IEENSLKEEESIEGEKEVK	K	S	95.00%	3.47	0.251	0	0	1	0	2	2,299.06	1594	1612	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	3	0.02%	1.57%	KMSQPGSPSPK	K	T	95.00%	2.42	0.199	0	1	0	0	2	1,303.52	1557	1567	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	3	0.02%	1.57%	MSQPGSPSPK	K	T	95.00%	1.36	0.335	1	0	0	0	2	1,175.42	1558	1567	TRUE	
SNU216LR_PC1_01	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	1	1	1	0.01%	0.85%	EENPESDGEPVVEDGTSVK	K	T	95.00%	3.98	0.419	0	1	0	0	2	2,096.85	261	279	TRUE	
SNU216LR_PC1_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	4	0.02%	1.61%	IKSSPSPEVVKPK	K	I	95.00%	2.8	0.331	0	1	0	0	2	1,555.75	636	648	TRUE	
SNU216LR_PC1_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	4	0.02%	1.61%	KGSDSSIPDEEK	R	M	95.00%	2.6	0.263	0	2	0	0	2	1,371.57	315	326	TRUE	
SNU216LR_PC1_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	4	0.02%	1.61%	TSPLVSQNNEQGSTLR	R	D	95.00%	3.1	0.402	0	1	0	0	2	1,810.83	2052	2067	TRUE	
SNU216LR_PC1_01	Kinesin-like protein KIF23	IPI00293884	98,106.10	99.80%	2	3	3	0.02%	4.44%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	3.64	0.487	0	1	1	0	2	2,339.18	682	702	TRUE	
SNU216LR_PC1_01	Kinesin-like protein KIF23	IPI00293884	98,106.10	99.80%	2	3	3	0.02%	4.44%	YMLTHQELASDGEIETK	K	L	95.00%	2.99	0.317	0	1	0	0	2	2,044.89	754	770	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	APEGDDFLSLHAESDGEGALQVDLGEPAPA	R	W	95.00%	5.13	0.528	0	0	1	0	2	3,781.69	440	476	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	EAASSSSGTQPAPPAPASPWDSK	K	K	95.00%	3.54	0.441	0	1	0	0	2	2,306.00	531	553	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	5.19	0.457	0	1	1	0	2	2,434.09	531	554	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	ESRSPFLKPDER	R	A	95.00%	2.67	0.271	0	0	1	0	2	1,540.72	871	882	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	3.85	0.506	0	1	1	0	2	2,741.18	225	247	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	GPSPAPASSPK	R	R	95.00%	2.24	0.355	0	1	0	0	2	1,075.48	717	727	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	GPSPAPASSPKR	R	E	95.00%	2.59	0.275	0	2	1	0	2	1,231.58	717	728	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.58	0.5	0	1	2	0	2	2,048.01	496	516	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	QRSPSPAPAPAPAAAAGPPTRK	R	K	95.00%	4.69	0.463	0	0	1	0	2	2,256.07	496	517	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	RRSASPPPATSSSSSSR	R	R	95.00%	3.26	0.342	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	SASPPPATSSSSSSR	R	R	95.00%	2.08	0.361	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	SPFLKPDER	R	A	95.00%	2.07	0.322	0	1	0	0	2	1,168.54	874	882	TRUE	
SNU216LR_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	17	19	0.11%	11.20%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	2.76	0.17	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216LR_PC1_01	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	1	1	1	0.01%	0.56%	LELKASPNVEAPQPHR	R	H	95.00%	4.52	0.393	0	0	1	0	2	1,865.93	1256	1271	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.01%	15.50%	DLLHPSPEEEK	K	R	95.00%	2.97	0.293	0	1	0	0	2	1,373.60	13	23	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.01%	15.50%	DLLHPSPEEEKRK	K	H	95.00%	2.7	0.181	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216LR_PC1_01	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	5	0.03%	6.46%	EVSSRPSTPGLSVVSGISATSEDIPNKIEDLR	R	S	89.60%	5.94	0.0128	0	0	1	1	2	3,420.69	594	625	TRUE	
SNU216LR_PC1_01	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	5	0.03%	6.46%	RTSPSDGAMANYESTEVMGDGESAHDSPR	K	D	95.00%	8.64	0.0074	0	0	1	0	2	3,134.25	854	882	TRUE	
SNU216LR_PC1_01	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	5	0.03%	6.46%	SRSSDIVSSVR	R	R	95.00%	2.93	0.463	0	1	0	0	2	1,272.59	739	749	TRUE	
SNU216LR_PC1_01	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	5	0.03%	6.46%	SSSLEMTPYNTPQLSPATTPANKK	K	N	95.00%	3.64	0.257	0	0	1	0	2	2,643.24	291	314	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	AEEEEASTEEEDKEGAVVSAPSVK	R	G	95.00%	4.09	0.444	0	0	1	0	2	2,680.08	682	705	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	6.53	0.562	0	0	1	0	2	3,418.61	1323	1355	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	ELSPEGPGK	R	E	95.00%	2.03	0.349	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	GSTPYKGDDEGIFISR	K	V	95.00%	2.85	0.29	0	0	1	0	2	1,821.81	747	762	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.14	0.515	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	95.00%	7.2	0.0348	0	0	2	1	2	4,094.96	1536	1574	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	LPLLPPESPGPLR	R	Q	95.00%	2.55	0.51	0	2	0	0	2	1,465.78	846	858	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	LRVQSPEPPAPER	R	A	95.00%	2.57	0.303	0	1	0	0	2	1,555.76	1471	1483	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	3.61	0.424	0	1	0	0	2	2,609.20	816	837	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	NSLESISSIDR	R	E	95.00%	2.1	0.376	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	QSPASPPPLGGGAPVR	R	T	95.00%	2.46	0.303	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	RVSLVGADDLRK	K	M	95.00%	3.18	0.405	0	0	1	0	2	1,408.73	1376	1387	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	SLEELLLDANQLR	R	E	95.00%	3.02	0.459	0	1	0	0	2	1,593.79	37	49	TRUE	
SNU216LR_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	17	0.10%	16.30%	SLEPSPSPGPQEEDGEVALVLLGR	R	P	95.00%	4.39	0.509	0	0	1	0	2	2,556.22	1575	1598	TRUE	
SNU216LR_PC1_01	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.22	0.335	0	1	1	0	2	1,656.70	340	354	TRUE	
SNU216LR_PC1_01	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.39	0.412	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216LR_PC1_01	Histone deacetylase 2	IPI00289601	55,365.50	99.80%	1	1	3	0.02%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	4.91	0.449	0	0	0	3	2	3,681.55	373	405	TRUE	
SNU216LR_PC1_01	Epiplakin	IPI00010951	553,088.70	100.00%	1	2	2	0.01%	0.38%	QVSASELHTSGILGPETLR	R	D	95.00%	3.13	0.489	0	1	1	0	2	2,075.02	2689	2707	TRUE	
SNU216LR_PC1_01	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.33%	ASASRPQPAPADGADPPPAEEPEARPDGEC	R	A	95.00%	4.72	0.37	0	0	1	0	2	3,388.51	92	125	TRUE	
SNU216LR_PC1_01	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.33%	HQDGLPYIDDSPSSSPHLSSK	R	G	92.70%	4.2	0.0906	0	0	1	0	2	2,347.02	449	469	TRUE	
SNU216LR_PC1_01	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.33%	PQPAPADGADPPPAEEPEARPDGEGSPGK	R	A	95.00%	3.77	0.421	0	0	1	0	2	2,916.27	97	125	TRUE	
SNU216LR_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00018321	143,159.40	99.80%	2	2	2	0.01%	2.01%	GESAPVRKNTR	K	Q	95.00%	2.1	0.285	0	1	0	0	2	1,374.59	1188	1198	TRUE	
SNU216LR_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00018321	143,159.40	99.80%	2	2	2	0.01%	2.01%	NYGYNPSPVKPEGLR	R	R	95.00%	3.56	0.413	0	0	1	0	2	1,770.82	1060	1074	TRUE	
SNU216LR_PC1_01	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	99.50%	2	2	2	0.01%	2.08%	FSFRSQEDLNEPIKR	K	D	89.10%	3.04	0.134	0	0	1	0	2	1,945.92	1125	1139	TRUE	
SNU216LR_PC1_01	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	99.50%	2	2	2	0.01%	2.08%	RQSSGSATNVASTPDNR	R	G	95.00%	3.13	0.394	0	1	0	0	2	1,827.80	644	660	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	8	0.05%	3.60%	DTEQKELDQDMVTEDEDDPGSHKR	K	G	95.00%	5.25	0.544	0	0	1	1	2	2,897.18	720	743	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	8	0.05%	3.60%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	4	0.405	0	1	2	0	2	2,295.91	725	743	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	8	0.05%	3.60%	HSHGPLQADVFVELLSPR	R	R	95.00%	3.79	0.405	0	0	1	0	2	2,082.02	1339	1356	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	8	0.05%	3.60%	KRQSPEPSPVTLGR	R	R	95.00%	2.75	0.182	0	0	1	0	2	1,631.83	1411	1424	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	8	0.05%	3.60%	RQSPEPSPVTLGR	K	R	87.60%	2.31	0.206	0	0	1	0	2	1,503.73	1412	1424	TRUE	
SNU216LR_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	7	7	0.04%	5.33%	DSPSAGGPVGQLEPIPIPAPASPGTRPTLK	R	D	95.00%	6.32	0.0334	0	0	1	0	2	2,987.52	506	535	TRUE	
SNU216LR_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	7	7	0.04%	5.33%	KSLSNPDIASETLTLLSFLR	R	S	95.00%	4.07	0.515	0	0	1	0	2	2,285.18	460	479	TRUE	
SNU216LR_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	7	7	0.04%	5.33%	MGAQQDDGSDAPPGSPDWAGDVTR	R	G	95.00%	4.66	0.594	0	1	0	0	2	2,509.99	605	628	TRUE	
SNU216LR_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	7	7	0.04%	5.33%	RPSADSESPGTPSPDGAAWEPPAR	R	E	95.00%	4.49	0.294	0	0	1	0	2	2,515.09	140	163	TRUE	
SNU216LR_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	7	7	0.04%	5.33%	SLSNPDIASETLTLLSFLR	K	S	95.00%	4.95	0.555	0	1	1	0	2	2,157.08	461	479	TRUE	
SNU216LR_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	7	7	0.04%	5.33%	SPSFGAGEGLLR	R	S	95.00%	2.19	0.435	0	1	0	0	2	1,270.58	418	429	TRUE	
SNU216LR_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	6	7	0.04%	1.35%	HVTLPSSPR	R	S	95.00%	1.93	0.434	0	1	0	0	2	1,073.51	2713	2721	TRUE	
SNU216LR_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	6	7	0.04%	1.35%	RHVTLPSSPR	R	S	95.00%	2.72	0.268	0	0	1	0	2	1,229.62	2712	2721	TRUE	
SNU216LR_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	6	7	0.04%	1.35%	SNTPMGDKDDDDDDDADEK	R	M	95.00%	3.92	0.649	0	2	1	0	2	2,177.73	2722	2740	TRUE	
SNU216LR_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	6	7	0.04%	1.35%	TGSTSSKEDDYESDAATIVQK	R	C	95.00%	4.53	-0.002	0	1	0	0	2	2,311.98	360	380	TRUE	
SNU216LR_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	6	7	0.04%	1.35%	TLSDVEDQKELASPVSPELR	K	Q	95.00%	3.09	0.286	0	0	1	0	2	2,293.10	166	185	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	DLEPGEVPSDSDEDGEHK	R	S	95.00%	3.31	0.472	0	2	0	0	2	2,114.75	1372	1389	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	ESGVVAVSPEKSESPQKEDGLSSQLK	R	S	95.00%	4.82	0.319	0	0	2	0	2	2,795.33	2113	2138	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	EVEKQEDTENHPKTPESAPENK	K	D	95.00%	3.22	0.319	0	0	1	1	2	2,616.15	1606	1627	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	FGSPKKDVDEYER	K	R	95.00%	3.18	0.343	0	0	1	0	2	1,649.72	1192	1204	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	HGSFHEDEDPIGSPR	R	L	95.00%	3.56	0.375	0	0	1	0	2	1,759.71	1266	1280	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	IPSTENSSQEISVEERTPTK	K	A	95.00%	3.23	0.287	0	0	1	0	2	2,312.07	2405	2424	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	LLSVKGSPK	R	V	95.00%	1.94	0.333	0	1	0	0	2	1,008.55	1281	1289	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	RPQSPGASPSQAER	R	L	95.00%	3.48	0.424	0	2	0	0	2	1,547.70	733	746	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	SDPVDPDKEPEKEDVSASGPSPEATQLAK	K	Q	95.00%	4.66	0.526	0	0	1	0	2	3,103.40	2139	2167	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	SESPQKEDGLSSQLK	K	S	95.00%	2.79	0.304	0	1	0	0	2	1,712.77	2124	2138	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	SLVHEVGKPPQDVTDDSPPSKK	R	K	95.00%	3.45	0.4	0	0	1	1	2	2,440.18	1206	1227	TRUE	
SNU216LR_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	14	17	0.10%	5.76%	SVYATMGDHENRSPVKEPVEQPR	R	V	95.00%	2.95	0.242	0	0	1	0	2	2,706.23	1906	1928	TRUE	
SNU216LR_PC1_01	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	5.17	0.533	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC1_01	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.51	0.158	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216LR_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	14.20%	GDSLKEPTSIAESSR	R	H	95.00%	2.86	0.336	0	0	1	0	2	1,656.75	325	339	TRUE	
SNU216LR_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	14.20%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	86.80%	3.86	0.0904	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216LR_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	14.20%	SKGSLEITESQSADAEPPPPPKPDLSR	K	Y	89.90%	4.58	0.0635	0	0	1	0	2	2,913.39	243	269	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	14.20%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.05	0.366	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216LR_PC1_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	2	2	0.01%	3.43%	VALSDDETKETENMR	R	K	95.00%	2.99	0.392	0	1	0	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC1_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	2	2	0.01%	3.43%	VALSDDETKETENMRK	R	K	95.00%	2.88	0.278	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216LR_PC1_01	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.80%	1	1	1	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.56	0.325	0	0	1	0	2	1,498.67	12	23	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	DASLHGLSQYNSL	R	-	95.00%	3.04	0.414	0	1	0	0	2	1,484.64	1593	1605	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	DHAPSIPTSPFGDSLESSTELR	R	R	95.00%	3.8	0.523	0	0	1	0	2	2,423.08	249	270	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	EDVTPPLSPDDLK	K	Y	95.00%	2.58	0.338	0	2	0	0	2	1,585.64	1049	1061	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	EGPVGGESDSEEMFEK	R	T	95.00%	3.68	0.405	0	1	0	0	2	1,806.68	404	419	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	GLPSTSSKEDVTPPLSPDDLK	K	Y	95.00%	3.2	0.274	0	1	0	0	2	2,343.04	1041	1061	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	IGDGLSPLPHLTESSSFLSTVTSVSR	R	D	95.00%	4.23	0.222	0	0	1	0	2	2,767.36	531	556	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	KESDGEESRLPQPK	K	R	95.00%	2.51	0.225	0	0	1	0	2	1,679.76	389	402	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	REGPVGGESDSEEMFEK	K	T	95.00%	3.32	0.519	0	3	1	0	2	1,978.77	403	419	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	SAEPRPELGPGQETGTNSR	R	G	95.00%	3.92	0.462	0	1	1	0	2	2,062.92	1426	1444	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	SLYGDVDSPLPTGEAGGPPSTR	K	E	95.00%	4.66	0.587	0	1	1	0	2	2,253.01	177	198	TRUE	
SNU216LR_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	11	14	17	0.10%	11.80%	WAPHSPTASQPQSPGDPTSLEEHGGEEPPE	R	D	95.00%	5.14	0.108	0	0	0	1	2	4,038.60	1558	1592	TRUE	
SNU216LR_PC1_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	4	0.02%	1.56%	PMEEDGEEKSPSK	R	K	95.00%	2.29	0.314	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216LR_PC1_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	4	0.02%	1.56%	RPMEEDGEEKSPSK	K	K	95.00%	4.01	0.507	0	1	2	0	2	1,698.70	372	385	TRUE	
SNU216LR_PC1_01	146 kDa protein	IPI00215638,IPI00742905	140,884.40	100.00%	1	1	1	0.01%	3.35%	SEEVPAFGVASPPPLTDTPDTTANAEGDLPT	K	A	95.00%	5.43	0.0963	0	0	0	1	2	4,489.15	77	120	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	3	3	3	0.02%	3.16%	AGSSPAQGAQNEPPR	K	L	95.00%	2.95	0.561	0	1	0	0	2	1,546.66	556	570	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	3	3	3	0.02%	3.16%	GNASPGAATHDSLSDYGPQDSRPTPMR	R	R	95.00%	3.15	0.194	0	0	1	0	2	2,865.23	963	989	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	3	3	3	0.02%	3.16%	GSQEDDPAATQRPPSNGGAK	K	E	83.50%	2.16	0.209	0	1	0	0	2	2,062.88	626	645	TRUE	
SNU216LR_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	9	0.05%	9.94%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.16	0.376	0	2	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	9	0.05%	9.94%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.33	0.433	0	2	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	9	0.05%	9.94%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	3.33	0.164	0	0	1	0	2	2,042.89	480	499	TRUE	
SNU216LR_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	9	0.05%	9.94%	EVELVSE	K	-	95.00%	1.84	0.246	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216LR_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	9	0.05%	9.94%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	5.86	0.537	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	9	0.05%	9.94%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.44	0.377	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC1_01	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	4	4	0.02%	3.11%	GTLSDSEIETNSATSTIFGK	R	A	95.00%	4.23	0.401	0	1	0	0	2	2,137.95	1198	1217	TRUE	
SNU216LR_PC1_01	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	4	4	0.02%	3.11%	KRSPTESVNTPVGK	R	D	95.00%	4.02	0.517	0	1	1	0	2	1,579.78	1037	1050	TRUE	
SNU216LR_PC1_01	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	4	4	0.02%	3.11%	LASDSDAESDSR	R	A	95.00%	2.32	0.347	0	1	0	0	2	1,332.50	816	827	TRUE	
SNU216LR_PC1_01	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	2	2	3	0.02%	0.46%	KQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.23	0.557	0	0	2	0	2	2,423.22	2452	2472	TRUE	
SNU216LR_PC1_01	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	2	2	3	0.02%	0.46%	RKQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.55	0.513	0	0	1	0	2	2,563.33	2451	2472	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	4	5	5	0.03%	3.25%	EKTESELKFEEDER	R	W	93.50%	2.53	0.148	0	1	0	0	2	1,848.79	272	285	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	4	5	5	0.03%	3.25%	KSPESEILSLHLLVEELR	R	L	95.00%	4.64	0.517	0	0	1	0	2	2,172.13	713	730	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	4	5	5	0.03%	3.25%	RDSDSFLNIFPEK	R	Q	95.00%	2.71	0.291	0	1	1	0	2	1,647.74	759	771	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	4	5	5	0.03%	3.25%	SPESEILSLHLLVEELR	K	L	95.00%	2.78	0.306	0	1	0	0	2	2,044.04	714	730	TRUE	
SNU216LR_PC1_01	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	2	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	4.42	0.733	0	0	2	0	2	4,295.37	119	153	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	KQSFDDNDSEELEDK	K	D	95.00%	1.78	0.299	0	1	0	0	2	1,878.73	105	119	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	KQSFDDNDSEELEDKDSK	K	S	95.00%	4.97	0.436	0	2	1	0	2	2,288.85	105	122	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	KWDGSEEDEDNSK	K	K	95.00%	3.28	0.367	0	1	0	0	2	1,618.59	160	172	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	KWDGSEEDEDNSKK	K	I	95.00%	3.61	0.473	0	2	1	0	2	1,746.69	160	173	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3.87	0.474	0	3	2	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.89	0.366	0	1	1	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	VEMYSGSDDDDDFNK	K	L	95.00%	3.21	0.519	0	1	0	0	2	1,816.63	131	145	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	4.26	0.39	0	5	3	0	2	2,154.86	131	148	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	25	0.15%	5.66%	WDGSEEDEDNSK	K	K	95.00%	2.82	0.422	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216LR_PC1_01	Centromere protein C 1	IPI00304885	106,928.30	99.80%	1	1	1	0.01%	1.70%	NDVDDEEVHGSSDDSK	K	Q	95.00%	2.02	0.355	0	1	0	0	2	1,907.62	699	714	TRUE	
SNU216LR_PC1_01	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	2	2	2	0.01%	1.77%	LTAGVPDTPTR	R	L	88.60%	2.2	0.151	0	1	0	0	2	1,207.57	1453	1463	TRUE	
SNU216LR_PC1_01	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	2	2	2	0.01%	1.77%	MTTTSAAAYGTHLSPHVPHR	R	V	90.10%	2.5	0.201	0	0	0	1	2	2,215.01	1391	1410	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	AEASSPVPYLSPETNPASSTSAVNHNVNLT	K	L	87.90%	5.71	0.0156	0	0	1	1	2	3,503.64	923	955	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.57	0.55	0	1	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	3.66	0.278	0	1	1	0	2	2,290.07	266	286	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	ATLLNVPDLSDSIHSANASERDDISEIQSLAS	R	S	94.80%	4.56	0.0924	0	0	0	1	2	4,000.85	266	302	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	DDISEIQSLASDHSGR	R	S	95.00%	3.35	0.396	0	1	1	0	2	1,809.77	287	302	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	95.00%	3.66	0.26	0	0	0	1	2	3,211.37	883	909	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	HTSDYEDTDTEGGAYTDQELDETLNDEVGT	R	S	95.00%	5.79	0.131	0	0	1	0	2	4,251.75	839	876	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	IDSPGFKPASQQK	R	A	92.80%	2.32	0.213	0	1	0	0	2	1,482.70	910	922	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.56	0.417	0	0	2	2	2	3,651.55	111	140	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	LEEPTPAPSTSYSPQADSLR	R	T	95.00%	4.47	0.0297	0	1	0	0	2	2,226.00	956	975	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	PVYAQVGQPDVDLPVSPSDGVLPNSTHED	K	L	94.00%	6.27	0.0154	0	0	0	1	2	3,994.93	387	423	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	4.91	0.446	0	0	1	1	2	3,866.70	877	909	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	SVASSQPAKPTK	R	V	95.00%	2.23	0.278	0	1	0	0	2	1,280.62	175	186	TRUE	
SNU216LR_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	20	22	0.13%	15.90%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	5.59	0.47	0	0	1	0	2	3,443.49	112	140	TRUE	
SNU216LR_PC1_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.2	0.251	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC1_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.92	0.221	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC1_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	4	6	0.04%	5.33%	ENPPVEDSSDEDDKR	R	N	95.00%	2.81	0.41	0	2	0	0	2	1,891.66	491	505	TRUE	
SNU216LR_PC1_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	4	6	0.04%	5.33%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.66	0.394	0	0	2	0	2	2,744.13	491	513	TRUE	
SNU216LR_PC1_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	4	6	0.04%	5.33%	HKSSLNSSPWSGLMALGNSR	K	H	95.00%	3.15	0.304	0	0	1	0	2	2,209.02	11	30	TRUE	
SNU216LR_PC1_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	4	6	0.04%	5.33%	RENPPVEDSSDEDDKR	K	N	95.00%	2.31	0.207	0	1	0	0	2	2,047.76	490	505	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	6	8	8	0.05%	4.24%	IILNSHSPAGSAAISQQDFHPK	R	C	95.00%	4.45	0.32	0	0	1	0	2	2,398.16	1606	1627	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	6	8	8	0.05%	4.24%	NDINEAVALLTNERPGLDYGGYEPMDSGG	K	G	95.00%	4.71	0.33	0	0	0	1	2	4,079.81	32	71	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	6	8	8	0.05%	4.24%	TISAQDTLAYATALLNEK	R	E	95.00%	3.58	0.481	0	1	1	0	2	2,002.97	2559	2576	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	6	8	8	0.05%	4.24%	TLLSESSSQSSKSPSLSSK	K	Q	95.00%	4.21	0.0494	0	1	0	0	2	2,019.95	1129	1147	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	6	8	8	0.05%	4.24%	VSDQNSPVLPK	R	K	95.00%	2.61	0.334	1	1	0	0	2	1,263.60	2042	2052	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	6	8	8	0.05%	4.24%	VSDQNSPVLPKK	R	S	95.00%	2.74	0.351	0	1	0	0	2	1,391.69	2042	2053	TRUE	
SNU216LR_PC1_01	Hypothetical protein A-362G6.1	IPI00005146	178,993.20	99.30%	2	2	2	0.01%	2.30%	DNCLMMTDLLTEYAKTFGYTFR	K	L	85.50%	2.23	0.228	0	0	0	1	2	2,930.13	1132	1153	TRUE	
SNU216LR_PC1_01	Hypothetical protein A-362G6.1	IPI00005146	178,993.20	99.30%	2	2	2	0.01%	2.30%	SKSPVGNPQLIQFSR	R	E	95.00%	2.97	0.415	0	1	0	0	2	1,737.87	871	885	TRUE	
SNU216LR_PC1_01	Condensin complex subunit 1	IPI00299524	157,173.30	99.80%	1	1	1	0.01%	1.36%	YQPLASTASDNDFVTPEPR	R	R	95.00%	3.98	0.43	0	1	0	0	2	2,187.96	1325	1343	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	4	4	0.02%	4.10%	DKEVSDDEAEEKEDK	R	E	95.00%	3.42	0.258	0	0	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	3.97	0.465	0	1	1	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC1_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.79	0.331	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC1_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.23	0.339	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216LR_PC1_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	3.85	0.501	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	AADISLDNLVEGK	K	R	95.00%	2.7	0.426	0	1	0	0	2	1,424.67	1619	1631	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	EEKSVEYEGDLK	K	S	95.00%	2.72	0.287	0	1	0	0	2	1,505.64	811	822	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	EGDIIPPLTGATPPLIGHLK	K	L	95.00%	3.42	0.3	0	0	1	0	2	2,119.12	916	935	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	95.00%	4.55	0.326	0	0	1	1	2	4,155.93	282	317	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	ETAVPGPLGIEDISPNLSPDDK	R	S	95.00%	3.46	0.526	0	2	0	0	2	2,344.10	1418	1439	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	ETAVPGPLGIEDISPNLSPDDKSFSR	R	V	95.00%	3.35	0.285	0	0	1	0	2	2,821.33	1418	1443	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	GNLLHFPSSQGEEEK	R	E	95.00%	2.88	0.281	0	1	1	0	2	1,751.76	1065	1079	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	95.00%	5.05	0.425	0	0	0	4	2	4,170.83	1206	1243	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	5.67	0.491	0	3	3	0	2	2,641.12	541	563	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	KNGSTAVAESVASPQK	R	T	95.00%	2.34	0.325	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	LAILDQELEHKEQEAWEEATSEDSSVVIVDV	K	V	95.00%	5.99	0.468	0	0	0	1	2	4,286.04	736	772	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	LDTKEEKSVEYEGDLK	R	S	95.00%	3.27	0.286	0	1	1	0	2	1,962.89	807	822	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	LITSEEERSPAK	K	R	95.00%	2.4	0.179	0	1	0	0	2	1,439.68	1675	1686	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	LVSPETEASEESLQFNLEKPATGER	K	K	95.00%	3.64	0.333	0	0	1	0	2	2,841.32	996	1020	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.29	0.563	0	1	3	0	2	2,555.14	1112	1134	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	7.37	0.59	0	1	2	1	2	2,881.31	1112	1137	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	NGSTAVAESVASPQK	K	T	95.00%	2.68	0.32	0	1	0	0	2	1,525.69	1022	1036	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	5.5	0.513	0	1	5	1	2	2,457.22	1090	1111	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.49	0.529	0	0	2	0	2	3,282.51	1464	1495	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	SDSPEIPFQAAAGPSDGLDASSPGNSFVGLF	R	V	95.00%	5.23	0.581	0	1	1	0	2	3,126.41	1465	1495	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	SEDMPFSPK	R	A	95.00%	2.76	0.396	0	2	0	0	2	1,117.43	264	272	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	SGTAETEPVEQDSSQPSLPLVR	K	A	95.00%	4.77	0.534	0	1	1	0	2	2,407.10	823	844	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	SNVSSPATPTASSSSSTTPTR	R	K	95.00%	3.52	0.0544	0	1	0	0	2	2,102.92	1636	1656	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	SPEPEVLSTQEDLFDQSNK	K	T	95.00%	4.59	0.566	0	1	1	0	2	2,242.98	299	317	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	STPFIVPSSPTEQEGR	R	Q	95.00%	2.79	0.247	0	0	1	0	2	1,811.82	377	392	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	STPFIVPSSPTEQEGRQDKPMDTSVLSEEGG	R	K	93.50%	6.09	0.02	0	0	1	0	2	4,014.83	377	412	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	27	39	56	0.33%	23.50%	TSSGTSLSAMHSSGSSGK	R	G	91.50%	3.29	0.0564	0	1	0	0	2	1,748.72	1320	1337	TRUE	
SNU216LR_PC1_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	4.17%	GADNDGSGSESGYTTPK	K	K	95.00%	3.35	0.454	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC1_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	4.17%	RTSPQVLGSILK	R	S	95.00%	3.17	0.351	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC1_01	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	4	5	0.03%	3.85%	DQHLNNSSSSPQR	R	S	95.00%	3.04	0.364	0	1	0	0	2	1,549.64	423	435	TRUE	
SNU216LR_PC1_01	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	4	5	0.03%	3.85%	ILEDHGSPAGEIDDEDKDKDETETVK	R	Q	95.00%	4.65	0.24	0	0	0	1	2	2,965.28	1724	1749	TRUE	
SNU216LR_PC1_01	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	4	5	0.03%	3.85%	KDEETEESEYDSEHENSEPVTNIR	R	N	92.50%	4.09	0.0908	0	0	1	0	2	2,946.18	527	550	TRUE	
SNU216LR_PC1_01	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	4	5	0.03%	3.85%	VTNDISPESSPGVGR	R	R	95.00%	3.55	0.49	0	2	0	0	2	1,594.71	60	74	TRUE	
SNU216LR_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	9	0.05%	3.42%	EEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.56	0.577	0	1	1	0	2	2,439.00	15	38	TRUE	
SNU216LR_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	9	0.05%	3.42%	REEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	6.38	0.576	0	0	1	0	2	2,595.10	14	38	TRUE	
SNU216LR_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	9	0.05%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	5.18	0.534	0	0	4	0	2	2,751.20	13	38	TRUE	
SNU216LR_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	9	0.05%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.51	0.553	0	2	0	0	2	1,971.82	39	56	TRUE	
SNU216LR_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.22%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.66	0.0011	0	1	0	0	2	2,342.95	1355	1377	TRUE	
SNU216LR_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.22%	EASPAPLAQGEPGREDLPTR	R	L	93.90%	2.01	0.229	0	0	1	0	2	2,171.01	1200	1219	TRUE	
SNU216LR_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.22%	EASPAPLAQGEPGREDLPTRLPALGEAHVSF	R	A	95.00%	3.59	0.155	0	0	0	1	2	3,956.94	1200	1237	TRUE	
SNU216LR_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.22%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	4.3	0.46	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216LR_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.22%	LPALGEAHVSPEVATADK	R	A	95.00%	4.08	0.494	0	0	1	0	2	1,884.91	1220	1237	TRUE	
SNU216LR_PC1_01	Calmin	IPI00101942	111,652.50	99.80%	1	1	1	0.01%	2.40%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	3.6	0.14	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216LR_PC1_01	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.80%	2	3	3	0.02%	3.31%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.77	0.591	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216LR_PC1_01	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.80%	2	3	3	0.02%	3.31%	TASESNVYLNSFHYPDHSYK	R	D	95.00%	4.24	0.303	0	0	1	0	2	2,439.03	962	981	TRUE	
SNU216LR_PC1_01	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.45%	AHSPALGVHSFSGVQR	R	F	95.00%	4.01	0.471	0	0	1	0	2	1,729.82	353	368	TRUE	
SNU216LR_PC1_01	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.45%	LLGSLDEVVLLSPVPELRDSSK	K	L	95.00%	4.45	0.421	0	0	1	0	2	2,446.28	544	565	TRUE	
SNU216LR_PC1_01	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.45%	QLQPASELWSSDGAAGLVGSLQEVTIHEK	R	Q	95.00%	4.38	0.463	0	0	1	0	2	3,130.51	41	69	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	2	2	0.01%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	5.5	0.5	0	0	1	0	2	2,780.35	101	124	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	2	2	0.01%	2.28%	SPTSPLNMK	K	L	95.00%	1.83	0.349	0	1	0	0	2	1,054.46	116	124	TRUE	
SNU216LR_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	7	7	7	0.04%	4.85%	AAGSPSSSDQDEKLPGQDESTAGTSEQNDI	K	V	89.00%	5.17	0.0377	0	0	1	0	2	3,342.45	184	215	TRUE	
SNU216LR_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	7	7	7	0.04%	4.85%	DQMEGSPNSSESFEHIAR	R	S	95.00%	3.2	0.424	0	1	0	0	2	2,100.83	774	791	TRUE	
SNU216LR_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	7	7	7	0.04%	4.85%	LPDLSPVENKEHKPGPIGK	K	E	90.90%	2.62	0.175	0	0	0	1	2	2,135.09	2101	2119	TRUE	
SNU216LR_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	7	7	7	0.04%	4.85%	QRGSETDTDSEIHESASDKDSLSK	R	G	95.00%	4.68	0.28	0	0	0	1	2	2,702.14	1260	1283	TRUE	
SNU216LR_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	7	7	7	0.04%	4.85%	RSVSHGSNHTQKPDEQR	K	S	95.00%	2.4	0.245	0	0	0	1	2	2,042.92	923	939	TRUE	
SNU216LR_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	7	7	7	0.04%	4.85%	SVSHGSNHTQKPDEQR	R	S	95.00%	2.3	0.407	0	0	0	1	2	1,886.81	924	939	TRUE	
SNU216LR_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	7	7	7	0.04%	4.85%	VKDAQQVEPEGQEKPSPATVR	K	S	95.00%	4.48	0.417	0	0	1	0	2	2,373.14	2128	2148	TRUE	
SNU216LR_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	6	6	7	0.04%	5.22%	HGAPSPSHPISAPQAAAAAALR	K	R	95.00%	4.08	0.292	0	0	1	0	2	2,158.06	1077	1098	TRUE	
SNU216LR_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	6	6	7	0.04%	5.22%	ITPPAAKPGSPQAK	R	S	95.00%	2.27	0.311	0	0	1	0	2	1,522.71	669	682	TRUE	
SNU216LR_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	6	6	7	0.04%	5.22%	SAQGSSSPVPSMVQKSPR	R	I	95.00%	3.46	0.439	0	1	0	0	2	1,909.88	651	668	TRUE	
SNU216LR_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	6	6	7	0.04%	5.22%	SPGSTPTTPTSSQAPQK	K	L	95.00%	2.31	0.304	0	2	0	0	2	1,751.79	430	446	TRUE	
SNU216LR_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	6	6	7	0.04%	5.22%	SPRITPPAAKPGSPQAK	K	S	95.00%	2.5	0.289	0	0	1	0	2	1,862.89	666	682	TRUE	
SNU216LR_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	6	6	7	0.04%	5.22%	TFGGFASSSFGEQKPTGTFSSGGGSVASQG	K	T	95.00%	3.6	0.304	0	0	1	0	2	3,771.66	1929	1966	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	3	3	3	0.02%	2.85%	EGVQGPLNVSLSEEGK	K	S	95.00%	3.93	0.436	0	1	0	0	2	1,722.79	1177	1192	TRUE	
SNU216LR_PC1_01	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	3	3	3	0.02%	2.85%	GAILSEEELAAMSPTAAAVAK	K	I	95.00%	4.5	0.428	0	1	0	0	2	2,110.01	368	388	TRUE	
SNU216LR_PC1_01	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	3	3	3	0.02%	2.85%	GNHVIRDEEVSSADISSSSEVISQHLVSYR	R	N	93.90%	6.38	0.0115	0	0	0	1	2	3,380.58	513	542	TRUE	
SNU216LR_PC1_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	2	2	2	0.01%	3.21%	DVRNSDMHLLDLESMGK	K	S	95.00%	3.94	0.354	0	0	1	0	2	2,039.89	284	300	TRUE	
SNU216LR_PC1_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	2	2	2	0.01%	3.21%	EVLDEDTDEEKETLK	K	N	95.00%	3.33	0.318	0	1	0	0	2	1,872.80	918	932	TRUE	
SNU216LR_PC1_01	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	2	2	2	0.01%	2.30%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.9	0.147	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216LR_PC1_01	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	2	2	2	0.01%	2.30%	SGSGISVISSTSVDQR	R	L	95.00%	2.75	0.271	0	1	0	0	2	1,659.76	313	328	TRUE	
SNU216LR_PC1_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.80%	2	3	3	0.02%	12.10%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	95.00%	4.49	0.39	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC1_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.80%	2	3	3	0.02%	12.10%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.34	0.491	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC1_01	Matrin-3	IPI00017297	94,626.70	100.00%	3	4	4	0.02%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.27	0.409	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC1_01	Matrin-3	IPI00017297	94,626.70	100.00%	3	4	4	0.02%	4.25%	SYSPDGKESPSDK	R	K	91.70%	1.92	0.263	0	1	0	0	2	1,476.59	596	608	TRUE	
SNU216LR_PC1_01	Matrin-3	IPI00017297	94,626.70	100.00%	3	4	4	0.02%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.77	0.33	0	1	0	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC1_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	4	6	0.04%	3.98%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	3.23	0.416	0	2	0	0	2	2,075.92	342	359	TRUE	
SNU216LR_PC1_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	4	6	0.04%	3.98%	KRSPSPSPTPEAK	R	K	95.00%	1.86	0.304	0	2	0	0	2	1,621.64	300	312	TRUE	
SNU216LR_PC1_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	4	6	0.04%	3.98%	SPSPSPTPEAK	R	K	95.00%	2.2	0.223	0	1	0	0	2	1,177.51	302	312	TRUE	
SNU216LR_PC1_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	4	6	0.04%	3.98%	TLTDEVNSPDSDRR	K	D	90.70%	2.39	0.167	0	0	1	0	2	1,684.72	276	289	TRUE	
SNU216LR_PC1_01	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	100.00%	2	2	2	0.01%	2.58%	EESSEDENEVSNILR	K	S	95.00%	2.74	0.323	0	1	0	0	2	1,829.74	955	969	TRUE	
SNU216LR_PC1_01	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	100.00%	2	2	2	0.01%	2.58%	ESNYFGLSPEER	R	R	95.00%	1.93	0.29	0	1	0	0	2	1,507.61	370	381	TRUE	
SNU216LR_PC1_01	Dynein heavy chain, cytosolic	IPI00456969	532,405.60	100.00%	1	1	1	0.01%	0.34%	RKDSAIQQQVANLQMK	R	I	95.00%	3.75	0.272	0	0	1	0	2	1,937.96	1227	1242	TRUE	
SNU216LR_PC1_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	4	0.02%	5.14%	AAKPGPAEAPSPTASPSGDASPPATAPYDPI	R	V	89.80%	3.75	0.114	0	0	1	0	2	3,011.38	1094	1124	TRUE	
SNU216LR_PC1_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	4	0.02%	5.14%	ALPTSKPEGSLHSSPVGPSSSK	R	G	95.00%	3.81	0.119	0	0	1	0	2	2,230.08	895	916	TRUE	
SNU216LR_PC1_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	4	0.02%	5.14%	TGSGSPFAGNSPAR	K	E	95.00%	3.3	0.405	0	2	0	0	2	1,385.58	1265	1278	TRUE	
SNU216LR_PC1_01	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	3	0.02%	2.56%	GIGTPPNTTPIKNGSPEIK	K	L	95.00%	3.29	0.342	0	1	0	0	2	2,001.01	107	125	TRUE	
SNU216LR_PC1_01	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	3	0.02%	2.56%	IQDPTEDAEAEDTPR	R	K	95.00%	4.03	0.521	0	1	0	0	2	1,766.71	532	546	TRUE	
SNU216LR_PC1_01	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	3	0.02%	2.56%	RIQDPTEDAEAEDTPR	K	K	95.00%	2.35	0.359	0	1	0	0	2	1,922.81	531	546	TRUE	
SNU216LR_PC1_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	2	3	5	0.03%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	3.08	0.332	0	1	0	0	2	1,548.75	298	311	TRUE	
SNU216LR_PC1_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	2	3	5	0.03%	3.80%	SGPKPFSAPKPQTSPSPK	K	R	95.00%	4.65	0.47	0	2	2	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC1_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.22	0.338	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216LR_PC1_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	3.01	0.265	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216LR_PC1_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	2.26	0.399	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	7	8	9	0.05%	2.46%	AAMYDIISSPSK	K	D	90.60%	2.77	0.103	0	1	0	0	2	1,362.60	342	353	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	7	8	9	0.05%	2.46%	AAMYDIISSPSKDSTK	K	L	95.00%	4.28	0.0384	0	1	0	0	2	1,793.80	342	357	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	7	8	9	0.05%	2.46%	AITSLLGGGSPK	K	N	95.00%	2.58	0.201	1	1	0	0	2	1,180.60	2649	2660	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	7	8	9	0.05%	2.46%	DVPPDILLDSPER	R	K	79.60%	2.25	0.149	0	1	0	0	2	1,545.72	309	321	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	7	8	9	0.05%	2.46%	DVPPDILLDSPERK	R	Q	95.00%	2.52	0.285	0	2	0	0	2	1,673.82	309	322	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	7	8	9	0.05%	2.46%	NNTAAETEDDESDGEDR	K	G	95.00%	3.36	0.566	0	1	0	0	2	1,947.67	2661	2677	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	7	8	9	0.05%	2.46%	NNTAAETEDDESDGEDRGGGTSGSLRR	K	S	95.00%	3.54	0.229	0	0	1	0	2	2,876.16	2661	2687	TRUE	
SNU216LR_PC1_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	2	2	3	0.02%	7.14%	RANFDEENAYFEDEEEDSSNVDLPYIPAENS	K	Q	95.00%	6.3	0.4	0	0	1	0	2	4,042.68	66	99	TRUE	
SNU216LR_PC1_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	2	2	3	0.02%	7.14%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	4.7	0.521	0	0	2	0	2	3,749.61	163	195	TRUE	
SNU216LR_PC1_01	WD repeat domain 62	IPI00470483	165,886.10	100.00%	5	7	8	0.05%	7.84%	AGTGYASPDRTHVLAAGK	K	A	95.00%	3.14	0.299	0	0	1	0	2	1,851.88	1138	1155	TRUE	
SNU216LR_PC1_01	WD repeat domain 62	IPI00470483	165,886.10	100.00%	5	7	8	0.05%	7.84%	LHGSAFRPSLPAPESPGLPAHPSNPQLPEAR	R	P	95.00%	3.95	0.3	0	0	0	1	2	3,307.64	1334	1364	TRUE	
SNU216LR_PC1_01	WD repeat domain 62	IPI00470483	165,886.10	100.00%	5	7	8	0.05%	7.84%	RPSSVGELASLGQELQAITTATTPSLDSEGQI	R	S	95.00%	6.92	0.0235	0	0	2	0	2	3,789.85	1246	1281	TRUE	
SNU216LR_PC1_01	WD repeat domain 62	IPI00470483	165,886.10	100.00%	5	7	8	0.05%	7.84%	SISLGDSEGPIVATLAQPLR	R	R	95.00%	3.99	0.552	0	1	1	0	2	2,104.07	1226	1245	TRUE	
SNU216LR_PC1_01	WD repeat domain 62	IPI00470483	165,886.10	100.00%	5	7	8	0.05%	7.84%	TRLSTASEETVQNR	R	V	95.00%	2.84	0.457	0	1	1	0	2	1,671.77	46	59	TRUE	
SNU216LR_PC1_01	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	100.00%	3	3	3	0.02%	4.94%	RNSPAFLSTDLGDEDVGLGPPAPR	R	T	95.00%	3.46	0.391	0	0	1	0	2	2,561.20	502	525	TRUE	
SNU216LR_PC1_01	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	100.00%	3	3	3	0.02%	4.94%	SDTPQSPSLNSSQPTNSADSK	K	K	95.00%	3.96	0.0273	0	1	0	0	2	2,227.94	848	868	TRUE	
SNU216LR_PC1_01	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	100.00%	3	3	3	0.02%	4.94%	TIVAVGSMEEAVILPFR	R	I	95.00%	2.65	0.558	0	1	0	0	2	1,911.97	779	795	TRUE	
SNU216LR_PC1_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	2	0.01%	4.78%	HADNSSDTEMEDMIAEETLEEMDSELLK	K	C	95.00%	5.54	0.549	0	0	1	0	2	3,292.31	757	784	TRUE	
SNU216LR_PC1_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	2	0.01%	4.78%	MDRTPPPPTLSPAAITVGR	R	G	95.00%	4.6	0.417	0	0	1	0	2	2,136.99	606	624	TRUE	
SNU216LR_PC1_01	Talin-1	IPI00298994	271,170.80	100.00%	3	3	4	0.02%	0.94%	DHFGLEGDEESTMLEDSVSPK	K	K	95.00%	5.34	0.456	0	0	1	0	2	2,401.97	407	427	TRUE	
SNU216LR_PC1_01	Talin-1	IPI00298994	271,170.80	100.00%	3	3	4	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPK	K	K	95.00%	6.44	0.494	0	0	2	0	2	2,617.10	405	427	TRUE	
SNU216LR_PC1_01	Talin-1	IPI00298994	271,170.80	100.00%	3	3	4	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	4.91	0.294	0	0	0	1	2	2,745.20	405	428	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	EAQQKVPDEEENEESDNEKETEK	K	S	82.40%	3.78	0.0821	0	0	0	1	2	2,814.15	1173	1195	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	GESDDFHMDFDSAVAPR	K	A	95.00%	2.69	0.378	0	1	0	0	2	1,975.75	1574	1590	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	95.00%	4.33	0.0055	0	1	0	0	2	2,784.31	1467	1492	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	5.44	0.515	0	3	2	0	2	2,366.08	1320	1340	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	KIKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.88	0.385	0	0	1	0	2	2,494.17	1319	1340	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	KPSTSDDSDSNFEK	R	I	82.90%	3.22	0.0518	0	2	0	0	2	1,636.64	1548	1561	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	KTQMAEVLPSPR	K	G	95.00%	3.23	0.484	0	2	0	0	2	1,436.70	1285	1296	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	NENTEGSPQEDGVELEGLK	K	Q	95.00%	4.23	0.401	0	1	1	0	2	2,124.90	1322	1340	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	SKGESDDFHMDFDSAVAPR	K	A	95.00%	3.85	0.347	0	0	1	0	2	2,190.88	1572	1590	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	SVVSDLEADDVK	K	G	95.00%	2.55	0.38	0	2	0	0	2	1,356.59	1455	1466	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	SVVSDLEADDVKGSVPLSSSPPATHFPDETE	K	K	95.00%	5.92	0.302	0	0	2	2	2	4,041.92	1455	1492	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	TDDEDFVPSDASPPK	K	T	95.00%	2.84	0.268	0	1	0	0	2	1,779.64	1424	1438	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	TDDEDFVPSDASPPKTK	K	T	95.00%	2.66	0.171	0	1	0	0	2	2,008.78	1424	1440	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	TQMAEVLPSPR	K	G	95.00%	3.06	0.493	0	2	0	0	2	1,324.60	1286	1296	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	VPDEEENEESDNEK	K	E	95.00%	3	0.329	0	1	0	0	2	1,742.63	1178	1191	TRUE	
SNU216LR_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	16	20	31	0.18%	9.25%	VPDEEENEESDNEKETEK	K	S	95.00%	4.52	0.493	0	3	1	0	2	2,229.86	1178	1195	TRUE	
SNU216LR_PC1_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	99.80%	2	2	2	0.01%	6.03%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	6.7	0.0307	0	0	1	0	2	2,976.44	103	129	TRUE	
SNU216LR_PC1_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	99.80%	2	2	2	0.01%	6.03%	SINKLDSPDPFKLNDPFQPFPGNDSPK	R	E	95.00%	3.31	0.274	0	0	1	0	2	3,094.46	656	682	TRUE	
SNU216LR_PC1_01	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	4	0.02%	5.47%	QPAQSQNLSPLSGFSR	K	S	95.00%	2.56	0.331	0	1	0	0	2	1,796.83	250	265	TRUE	
SNU216LR_PC1_01	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	4	0.02%	5.47%	SHSQASLAGPGPVDPSNR	R	S	95.00%	4.59	0.554	0	1	1	0	2	1,856.83	135	152	TRUE	
SNU216LR_PC1_01	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	4	0.02%	5.47%	VASPGSTIDTAPLSSVDSLINKFDSQLGGQA	K	G	95.00%	6.87	0.108	0	0	1	0	2	3,311.62	163	194	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	KQSVFSAPSLSAGASAAEPLDR	R	S	95.00%	3.84	0.454	0	0	1	0	2	2,269.09	932	953	TRUE	
SNU216LR_PC1_01	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	RSIQGVGHMMSTMVLSR	R	K	95.00%	3.36	0.45	0	0	1	0	2	1,969.92	915	931	TRUE	
SNU216LR_PC1_01	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	SIQGVGHMMSTMVLSR	R	K	95.00%	3.73	0.475	0	1	1	0	2	1,813.82	916	931	TRUE	
SNU216LR_PC1_01	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	VASFSIPGSSSR	R	Y	86.60%	1.5	0.223	1	0	0	0	2	1,274.58	1830	1841	TRUE	
SNU216LR_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	GGIDNPAITSDQELDDK	K	K	95.00%	3.98	0.457	0	1	0	0	2	1,867.80	1209	1225	TRUE	
SNU216LR_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	GGIDNPAITSDQELDDKK	K	M	95.00%	3.54	0.375	0	1	1	0	2	1,995.89	1209	1226	TRUE	
SNU216LR_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	HRGSEEDPLLSPVETWK	R	G	95.00%	3.97	0.324	0	0	1	0	2	2,059.95	1192	1208	TRUE	
SNU216LR_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	RTHSDASDDEAFTTSK	R	T	95.00%	3.32	0.431	0	1	1	0	2	1,847.74	1170	1185	TRUE	
SNU216LR_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	THSDASDDEAFTTSK	R	T	95.00%	3.31	0.551	0	1	0	0	2	1,771.61	1171	1185	TRUE	
SNU216LR_PC1_01	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	4	4	4	0.02%	4.15%	EHSNPSPSQDTDGTK	R	A	95.00%	1.92	0.346	0	1	0	0	2	1,679.65	95	109	TRUE	
SNU216LR_PC1_01	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	4	4	4	0.02%	4.15%	EYGSTSSIDVQGMPEQSFFDILNEFR	R	S	95.00%	6.02	0	0	1	0	0	2	3,076.33	201	226	TRUE	
SNU216LR_PC1_01	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	4	4	4	0.02%	4.15%	REVSPAPAVAGQSK	R	G	95.00%	2.88	0.18	0	1	0	0	2	1,476.72	1361	1374	TRUE	
SNU216LR_PC1_01	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	4	4	4	0.02%	4.15%	RPVSFPETPVTVSPAGADR	K	V	95.00%	2.88	0.171	0	1	0	0	2	2,126.99	1132	1150	TRUE	
SNU216LR_PC1_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	3.90%	ASIGQSPGLPSTTFK	K	L	95.00%	2.34	0.287	0	1	0	0	2	1,570.75	583	597	TRUE	
SNU216LR_PC1_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	3.90%	DVEDMELSDVEDDGSK	R	I	95.00%	3.25	0.347	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216LR_PC1_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	3.90%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.37	0.485	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216LR_PC1_01	dedicator of cytokinesis 7	IPI00513791	239,427.70	100.00%	3	3	4	0.02%	3.32%	LPNTYPNSSSPGPGGLGGSVHYATMAR	R	S	89.90%	6.06	0.0093	0	0	1	0	2	2,768.25	855	881	TRUE	
SNU216LR_PC1_01	dedicator of cytokinesis 7	IPI00513791	239,427.70	100.00%	3	3	4	0.02%	3.32%	MPFAWTAIHLMNIVSSAGSLER	R	D	95.00%	4.18	0.349	0	0	1	0	2	2,511.19	396	417	TRUE	
SNU216LR_PC1_01	dedicator of cytokinesis 7	IPI00513791	239,427.70	100.00%	3	3	4	0.02%	3.32%	SLSNSNPDISGTPTSPDDEVR	R	S	95.00%	5.2	0.0113	0	2	0	0	2	2,267.97	896	916	TRUE	
SNU216LR_PC1_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	98.80%	1	1	1	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	2.08	0.323	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC1_01	Transcription repressor	IPI00382733	82,672.30	100.00%	2	3	3	0.02%	3.99%	IDGATQSSPAEPK	K	S	95.00%	2.4	0.28	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216LR_PC1_01	Transcription repressor	IPI00382733	82,672.30	100.00%	2	3	3	0.02%	3.99%	RGSGDTSISIDTEASIR	R	E	95.00%	3.27	0.47	0	1	1	0	2	1,844.84	86	102	TRUE	
SNU216LR_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.35	0.499	0	0	2	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	ETPHSPGVEDAPIAK	R	V	95.00%	3.36	0.451	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.82	0.533	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	6.6	0.496	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216LR_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.63	0.417	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.29	0.459	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	3.61	0.317	0	0	2	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC1_01	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	3	5	0.03%	4.33%	ALEEGDGSVSGSSPR	R	S	95.00%	3.69	0.41	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216LR_PC1_01	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	3	5	0.03%	4.33%	IDENSDKEMEVEESPEK	K	I	95.00%	4.17	0.465	0	3	0	0	2	2,087.84	493	509	TRUE	
SNU216LR_PC1_01	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	3	5	0.03%	4.33%	RPILQLSPPGPR	R	G	95.00%	2.25	0.331	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216LR_PC1_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	2.52	0.251	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216LR_PC1_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	R	L	95.00%	5.31	0.572	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216LR_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	7.24%	GDRDESDDGGVAQR	R	M	95.00%	2.42	0.311	0	1	0	0	2	1,556.60	544	557	TRUE	
SNU216LR_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	7.24%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	3.34	0.373	0	0	1	1	2	2,030.85	281	298	TRUE	
SNU216LR_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	7.24%	HEDGTQSDSEDPLAK	K	A	95.00%	3.38	0.423	0	1	0	0	2	1,708.67	284	298	TRUE	
SNU216LR_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	7.24%	KPLAAPGDGEGLGQTAQPSPPAR	R	D	95.00%	3.44	0.29	0	0	1	0	2	2,295.11	741	763	TRUE	
SNU216LR_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	7.24%	MALLQEFASRPLGAAPQAEHQGLPVPGSPC	R	W	95.00%	3.73	0.467	0	0	1	1	2	3,419.69	558	590	TRUE	
SNU216LR_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	7.24%	MVIQLRPGRSPEPDGPAPAFLR	R	Q	95.00%	3.49	0.293	0	0	1	0	2	2,484.26	774	795	TRUE	
SNU216LR_PC1_01	Shroom-related protein	IPI00152881	216,663.20	99.80%	2	4	4	0.02%	2.11%	DRPGSPESPLLDAPFSR	R	A	95.00%	3.88	0.405	0	1	1	0	2	1,920.89	905	921	TRUE	
SNU216LR_PC1_01	Shroom-related protein	IPI00152881	216,663.20	99.80%	2	4	4	0.02%	2.11%	SPFIEEQLHTVLEKSPENSPPVKPK	K	H	95.00%	4.22	0.395	0	0	1	1	2	2,990.43	424	448	TRUE	
SNU216LR_PC1_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.51	0.112	0	1	1	0	2	2,093.93	360	377	TRUE	
SNU216LR_PC1_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.41	0.45	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC1_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.09	0.418	0	2	0	0	2	1,894.80	362	377	TRUE	
SNU216LR_PC1_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	5.37	0.0895	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	3.81%	LQLLSPQVDINSPINAK	R	K	95.00%	3.63	0.411	0	1	0	0	2	1,930.00	387	403	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	3.81%	RHDEDEDDSLKDR	R	E	95.00%	3.04	0.205	0	0	1	0	2	1,709.68	891	903	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	3.81%	RRSNTLDIMDGR	R	I	95.00%	3.55	0.313	0	0	1	0	2	1,513.69	1515	1526	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	3.81%	STGQLNLSTSPINSSSYLGYNSNAR	K	S	95.00%	5.27	0.0045	0	1	0	0	2	2,711.23	1474	1498	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	3.81%	STSSTSSGSNSNALVPVSWK	R	R	84.90%	3.4	0.0195	0	1	0	0	2	2,075.93	1932	1951	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	3.81%	TYGGDTGSPEISFTK	K	I	95.00%	2.79	0.323	0	1	0	0	2	1,639.69	1867	1881	TRUE	
SNU216LR_PC1_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	99.80%	2	2	2	0.01%	2.12%	FDHESSPGTDEDKSG	K	-	95.00%	1.4	0.378	0	1	0	0	2	1,847.54	740	754	TRUE	
SNU216LR_PC1_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	99.80%	2	2	2	0.01%	2.12%	KFDHESSPGTDEDKSG	K	-	95.00%	1.93	0.327	0	1	0	0	2	1,975.64	739	754	TRUE	
SNU216LR_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.23%	DSDDSAATPQDETVEER	K	G	88.60%	2.1	0.236	0	1	0	0	2	1,944.73	1817	1833	TRUE	
SNU216LR_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.23%	GAANASGSSPDAPAK	K	D	95.00%	2.29	0.204	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216LR_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.23%	LLVRPTSSETPSAAELVSAIEELVK	R	S	95.00%	4.62	0.0166	0	1	1	0	2	2,719.42	1894	1918	TRUE	
SNU216LR_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.23%	SSMEMEGIFNHK	R	D	95.00%	3.53	0.258	0	1	1	0	2	1,489.59	1723	1734	TRUE	
SNU216LR_PC1_01	Putative chloride channel protein 7	IPI00020524,IPI00745767	89,390.00	99.80%	1	1	1	0.01%	3.20%	VGHMSSVELDDELLDPDMDPPHPFPK	R	E	95.00%	5.6	0.351	0	0	1	0	2	2,997.31	56	81	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.32%	SISVSEHVVR	R	S	92.50%	1.81	0.233	0	1	0	0	2	1,192.57	979	988	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.32%	SMSGGHGLR	R	V	95.00%	1.98	0.317	0	1	0	0	2	981.3973	1130	1138	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.32%	SQSGTLDGESAAWSASGEDSR	R	G	95.00%	4.71	0.541	0	1	0	0	2	2,177.86	1418	1438	TRUE	
SNU216LR_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.32%	SSSSPELQTLQDILGDPGDK	K	A	95.00%	3.51	0.28	0	1	0	0	2	2,166.98	1385	1404	TRUE	
SNU216LR_PC1_01	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	3	0.02%	2.00%	AKPAMPQDSVPSPR	K	S	95.00%	2.75	0.402	0	2	0	0	2	1,576.72	470	483	TRUE	
SNU216LR_PC1_01	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	3	0.02%	2.00%	TASFSESR	R	A	95.00%	1.77	0.311	0	1	0	0	2	964.3771	453	460	TRUE	
SNU216LR_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	6	6	6	0.04%	5.15%	ALSPVTSR	K	T	95.00%	1.78	0.362	0	1	0	0	2	910.4394	697	704	TRUE	
SNU216LR_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	6	6	6	0.04%	5.15%	KASISLTDDEVDDEEETIEEEEANEGVVDHQ	R	E	95.00%	6.94	0.0416	0	0	0	1	2	4,490.90	902	940	TRUE	
SNU216LR_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	6	6	6	0.04%	5.15%	QISLSPSSGGHFVFQDGSGLTQIAQGAQVQ	R	E	85.60%	4.92	0.0412	0	0	0	1	2	4,324.15	179	219	TRUE	
SNU216LR_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	6	6	6	0.04%	5.15%	RSPPIKPLLGMNPFQK	K	N	95.00%	3.75	0.464	0	0	1	0	2	1,903.00	2438	2453	TRUE	
SNU216LR_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	6	6	6	0.04%	5.15%	TPGVLLPGAGGAAGFGMTSPPPPTSPSR	R	T	93.40%	4.91	0.0611	0	0	1	0	2	2,657.28	297	324	TRUE	
SNU216LR_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	6	6	6	0.04%	5.15%	VAVNALAVGEPGTASKPASPIGGPTQEEK	R	T	95.00%	5.13	0.446	0	0	1	0	2	2,855.42	1677	1705	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC55215	IPI00019447,IPI00477345	142,574.60	100.00%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	2.23	0.398	0	1	0	0	2	1,170.54	403	412	TRUE	
SNU216LR_PC1_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	1	1	1	0.01%	2.95%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.03	0.444	0	0	1	0	2	2,204.91	309	328	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Cytoskeleton-associated protein 5	IPI00028275,IPI00472887	225,515.80	100.00%	1	1	1	0.01%	1.38%	HSTSGTDEGEDGDEPDDGSNDVVDLLPR	K	T	94.10%	5.69	0.0355	0	0	1	0	2	3,008.19	827	854	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	DNQESSDAELSSSEYIK	K	T	95.00%	3.51	0.459	0	1	0	0	2	1,981.79	622	638	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	KPGPPLSPEIR	R	S	95.00%	2.15	0.215	0	1	0	0	2	1,270.66	421	431	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	KPGPSGPSESPK	R	A	95.00%	2.5	0.342	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.02	0.251	0	1	1	0	2	1,890.91	441	456	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.37	0.462	0	0	1	0	2	2,526.21	280	301	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	KTSPASLDFPESQK	R	S	95.00%	3.7	0.491	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.19	0.461	0	0	2	0	2	2,314.11	199	219	TRUE	
SNU216LR_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	10	0.06%	15.10%	TAPTLSPEHWK	K	A	95.00%	2.38	0.232	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC1_01	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	3	4	5	0.03%	3.57%	FHSPSTTWSPNK	R	D	95.00%	2.4	0.273	0	1	0	0	2	1,468.63	479	490	TRUE	
SNU216LR_PC1_01	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	3	4	5	0.03%	3.57%	FHSPSTTWSPNKDTPQEK	R	K	95.00%	2.89	0.339	0	0	2	0	2	2,166.95	479	496	TRUE	
SNU216LR_PC1_01	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	3	4	5	0.03%	3.57%	TEELIESPKLESSEGEIIQTVDR	K	Q	95.00%	5.8	0.469	0	1	1	0	2	2,682.28	287	309	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	8	8	0.05%	5.97%	DDATPVRDEPMDAESITFK	R	S	90.80%	3.2	0.153	0	0	1	0	2	2,216.94	804	822	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	8	8	0.05%	5.97%	ETDEAAFEPDYNESDSESNVSVKEEESSGNI	R	D	94.60%	5.47	0.0453	0	0	1	0	2	3,702.50	1454	1486	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	8	8	0.05%	5.97%	ISKLEVTEIVKPSPK	K	R	95.00%	3.47	0.324	0	0	1	0	2	1,747.96	990	1004	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	8	8	0.05%	5.97%	KVTGTEGSSSTLVDYTSTSSTGGSPVRK	R	S	95.00%	7.97	0.039	0	0	1	0	2	2,869.35	1077	1104	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	8	8	0.05%	5.97%	LEVTEIVKPSPK	K	R	95.00%	3.86	0.267	0	1	1	0	2	1,419.75	993	1004	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	8	8	0.05%	5.97%	NLQPLMRSPISR	R	Q	95.00%	3.24	0.338	0	1	0	0	2	1,491.75	176	187	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	8	8	0.05%	5.97%	VTGTEGSSSTLVDYTSTSSTGGSPVR	K	K	95.00%	4.27	0.113	0	0	1	0	2	2,613.16	1078	1103	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	3	3	3	0.02%	10.10%	EVDEVDAALSDLEITLEGGK	K	T	95.00%	2.81	0.454	0	1	0	0	2	2,183.00	342	361	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	3	3	3	0.02%	10.10%	KLDDQSEDEALELEGPLITPGSGSIYSSPGLYS	K	T	95.00%	6.39	0.57	0	0	1	0	2	3,675.72	154	187	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	3	3	3	0.02%	10.10%	LSIMTSENHLNNSDKEVDEVDAALSDLEITL	K	T	95.00%	3.7	0.462	0	0	0	1	2	3,866.79	327	361	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7.33	0.623	0	0	2	0	2	3,607.53	769	801	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.11	0.438	0	2	0	0	2	1,795.73	5	21	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.85	0.268	0	0	2	0	2	2,218.96	5	25	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	EIPSATQSPISK	K	K	95.00%	2.42	0.177	0	1	0	0	2	1,337.64	1156	1167	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	EIPSATQSPISKK	K	R	93.90%	2.14	0.243	0	1	0	0	2	1,465.73	1156	1168	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	KGVLGKSPLSALAR	K	K	95.00%	2.6	0.419	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.11	0.335	0	0	2	0	2	2,300.10	1254	1275	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.35	0.288	0	2	1	0	2	2,172.01	1255	1275	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	RKSEDGTPAEDGTPAATGGSQPPSMGR	K	K	95.00%	4.14	0.486	0	0	1	0	2	2,737.19	1184	1210	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	10	11	16	0.09%	11.00%	SPAPGAPTRSPSTPAK	K	S	95.00%	3.13	0.501	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216LR_PC1_01	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.05%	GELSEEELPYYVELPDR	R	T	81.50%	2.63	0.0955	0	1	0	0	2	2,117.93	1082	1098	TRUE	
SNU216LR_PC1_01	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.05%	KNSWEPKPITVPQFK	R	Q	95.00%	2.64	0.241	0	0	1	0	2	1,878.95	679	693	TRUE	
SNU216LR_PC1_01	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.05%	SSESPSSSPSSPARK	K	N	95.00%	2.41	0.272	0	1	0	0	2	1,570.67	711	725	TRUE	
SNU216LR_PC1_01	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	2	2	0.01%	4.03%	MTNNEDSLSPTSSTLSNLELDAAEKDR	R	K	95.00%	5.65	0.0611	0	0	1	0	2	3,018.32	549	575	TRUE	
SNU216LR_PC1_01	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	2	2	0.01%	4.03%	SGEISLPIKEEPSPISK	K	M	95.00%	3.11	0.373	0	1	0	0	2	1,890.95	873	889	TRUE	
SNU216LR_PC1_01	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	99.80%	1	2	2	0.01%	1.45%	RDSPLQGSGQQNSQAGQR	R	N	95.00%	5.18	0.585	0	1	1	0	2	1,993.88	637	654	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	ALSSAVQASPTSPGGSPSSPSSGQR	K	S	95.00%	5.32	0.0114	0	1	0	0	2	2,460.04	3500	3524	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	AQGQESDSSETSVR	K	G	95.00%	2.63	0.402	0	1	0	0	2	1,560.62	1051	1064	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	GPGEPDSPTPLHPPTPPILSTDR	K	S	95.00%	3.78	0.344	0	0	1	0	2	2,458.17	1831	1853	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	HSTSSLSPQR	R	S	94.40%	1.57	0.299	0	1	0	0	2	1,179.52	2195	2204	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	KKGSEIQSSSALYPVGR	R	V	95.00%	2.19	0.266	0	0	0	1	2	1,966.90	894	910	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	NDRDQHTDSTQSANSSPDEDTEVK	R	T	95.00%	6.57	0.196	0	0	1	0	2	2,836.06	2377	2400	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	QAAKPPDLNPETEESIPSRSSPEGPDPPVLTE	R	Q	95.00%	4.29	0.179	0	0	0	1	2	3,778.81	1665	1699	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	SASPSVPGPTKPKPK	R	T	95.00%	3.12	0.325	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	SPTVPSQNPSR	R	L	95.00%	1.95	0.236	0	1	0	0	2	1,249.56	2938	2948	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	SREDSPELNPPPGIEDNR	R	Q	95.00%	2.41	0.241	0	1	0	0	2	2,101.92	1854	1871	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	SSIAGSEDAEPLAPPIKPIKPVTR	K	N	95.00%	3.4	0.247	0	0	1	0	2	2,553.33	1114	1137	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	SSPEGPDPPVLTEVSK	R	Q	95.00%	2.55	0.264	0	1	0	0	2	1,718.79	1684	1699	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	TIAHSPTSFTESSSK	R	E	95.00%	3.84	0.178	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	15	15	0.09%	6.63%	YVPNSTDSPGPSQISNAAVQTTPPHLKPATI	K	L	95.00%	3.61	0.202	0	0	1	0	2	3,412.64	3046	3077	TRUE	
SNU216LR_PC1_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	2	2	0.01%	8.16%	FAFSPLSEEEEEEDEQKEPMLK	R	E	95.00%	3.84	0.384	0	0	1	0	2	2,592.11	478	498	TRUE	
SNU216LR_PC1_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	2	2	0.01%	8.16%	WVEENVPSSVTDVALPALLDSDEER	K	M	95.00%	4.29	0.362	0	0	1	0	2	2,850.31	529	553	TRUE	
SNU216LR_PC1_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	4.2	0.537	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216LR_PC1_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	95.00%	3.21	0.375	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216LR_PC1_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	5.04	0.491	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216LR_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	6	7	0.04%	4.42%	ALTDDSDENEEEEDAFTDQK	K	I	95.00%	5.05	0.578	0	2	1	0	2	2,251.84	1207	1225	TRUE	
SNU216LR_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	6	7	0.04%	4.42%	DPAGDISVTPPAPAALPVALPTVASK	R	G	95.00%	3.45	0.488	0	0	1	0	2	2,535.31	327	352	TRUE	
SNU216LR_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	6	7	0.04%	4.42%	LEKVPDSPENELK	K	S	95.00%	2.77	0.197	0	1	0	0	2	1,577.75	516	528	TRUE	
SNU216LR_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	6	7	0.04%	4.42%	LFDDEASVDEPR	R	R	95.00%	2.28	0.33	0	1	0	0	2	1,472.59	639	650	TRUE	
SNU216LR_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	6	7	0.04%	4.42%	VPDSPENELK	K	S	95.00%	2.03	0.219	0	1	0	0	2	1,207.52	519	528	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	AALAPAKESPR	R	K	95.00%	2.22	0.418	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	DDPDGKQEAKPQQAAGMLSPK	K	T	95.00%	3.94	0.219	0	0	1	0	2	2,291.04	1162	1182	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.18	0.167	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	LDSSPSVSSTLAAK	K	D	95.00%	2.32	0.361	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.95	0.0884	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	PTSSPAKGPPQK	K	A	95.00%	2.84	0.277	0	1	1	0	2	1,274.61	503	514	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	QEAKPQQAAGMLSPK	K	T	95.00%	2.68	0.317	0	1	0	0	2	1,663.79	1168	1182	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	SLGNILQAKPTSSPAK	K	G	95.00%	3.83	0.447	0	2	1	0	2	1,691.87	494	509	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.03	0.373	0	1	1	1	2	2,199.15	494	514	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	SPQVKPASTMGMGPLGK	K	G	95.00%	2.87	0.449	0	1	0	0	2	1,765.84	426	442	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	TQPSSGVDSAVGTLPATSPQSTSVQAK	R	G	93.10%	4.86	0.0869	0	0	1	0	2	2,681.27	1017	1043	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	TSQVGAASAPAKESPR	K	K	95.00%	3.67	0.421	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	TSQVGAASAPAKESPRK	K	G	95.00%	3.61	0.45	0	1	0	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	20	21	0.12%	11.50%	TVANLLSGKSPR	K	K	95.00%	3.03	0.324	0	0	1	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC1_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	6	6	0.04%	4.21%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.84	0.456	0	1	1	0	2	2,114.05	687	705	TRUE	
SNU216LR_PC1_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	6	6	0.04%	4.21%	GSHQISLDNPDYQQDFFPK	K	E	95.00%	3.71	0.464	0	1	1	0	2	2,316.00	1161	1179	TRUE	
SNU216LR_PC1_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	6	6	0.04%	4.21%	MHLPSPTDSNFYR	R	A	95.00%	2.56	0.457	0	1	1	0	2	1,644.69	987	999	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	AVTPVPTK	R	T	95.00%	1.49	0.298	1	0	0	0	2	892.4541	524	531	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.1	0.461	0	1	1	0	2	1,792.91	524	539	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.36	0.558	0	0	1	1	2	3,607.64	74	113	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	ETESAPGSPR	K	A	95.00%	1.9	0.421	0	3	0	0	2	1,110.45	514	523	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.36	0.422	0	1	1	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	HSSNPPLESHVGWVMDSR	R	E	95.00%	3.81	0.419	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	KGSKVGDFGDAINWPTPGEIAHK	R	S	95.00%	4.32	0.146	0	0	1	0	2	2,504.20	163	185	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	KNTFTAWSDEESDYEIDDRDVNK	R	I	95.00%	3.53	0.22	0	0	1	0	2	2,937.15	620	642	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.94	0.345	0	0	1	0	2	2,405.19	130	152	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	NTFTAWSDEESDYEIDDR	K	D	95.00%	4.02	0.139	0	1	0	0	2	2,272.86	621	638	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	4.17	0.285	0	0	1	0	2	2,809.06	621	642	TRUE	
SNU216LR_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	12	15	19	0.11%	16.80%	SLPTTVPESPNYR	R	N	95.00%	2.35	0.357	0	3	0	0	2	1,540.70	766	778	TRUE	
SNU216LR_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	5	5	0.03%	4.86%	GLFSDEEDSEDLFSSQSASK	K	L	95.00%	4.53	0.522	0	1	0	0	2	2,257.90	430	449	TRUE	
SNU216LR_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	5	5	0.03%	4.86%	RTPSDDEEDNLFAPPK	R	L	95.00%	3.07	0.308	0	1	1	0	2	1,910.82	224	239	TRUE	
SNU216LR_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	5	5	0.03%	4.86%	SPMFPALGEASSDDDLFQSAKPK	K	P	95.00%	3.59	0.36	0	0	1	0	2	2,518.12	1042	1064	TRUE	
SNU216LR_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	5	5	0.03%	4.86%	TPSDDEEDNLFAPPK	R	L	95.00%	3.49	0.315	0	1	0	0	2	1,754.72	225	239	TRUE	
SNU216LR_PC1_01	DLNB11 protein	IPI00328798	157,129.30	100.00%	2	2	2	0.01%	2.74%	RPSDLTISINQMGSPGMGHLKSPTLSQVHS	R	S	92.50%	6.11	0.0153	0	0	0	1	2	4,443.16	913	953	TRUE	
SNU216LR_PC1_01	DLNB11 protein	IPI00328798	157,129.30	100.00%	2	2	2	0.01%	2.74%	SPTLSQVHSPLVTSPSANLK	K	S	95.00%	3.29	0.229	0	0	1	0	2	2,143.08	934	953	TRUE	
SNU216LR_PC1_01	CDA02	IPI00012462	67,852.50	99.80%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.71	0.449	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216LR_PC1_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	2	4	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.69	0.198	0	0	1	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC1_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	2	4	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.28	0.344	0	0	3	0	2	3,082.36	191	217	TRUE	
SNU216LR_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	AHTPLNTPDPSTK	R	L	95.00%	2.81	0.273	0	1	1	0	2	1,458.66	1348	1360	TRUE	
SNU216LR_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	KSESPFRETEPLVSPHQDK	K	L	95.00%	3.13	0.211	0	0	1	0	2	2,291.07	238	256	TRUE	IPI00442150
SNU216LR_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	SESPFRETEPLVSPHQDK	K	L	95.00%	2.94	0.201	0	0	1	0	2	2,162.98	239	256	TRUE	IPI00442150
SNU216LR_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	VDSETNIEASKLPTSEPEADAEIEPK	K	E	95.00%	4.89	0.359	0	0	1	0	2	2,879.31	1435	1460	TRUE	
SNU216LR_PC1_01	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	4	4	0.02%	3.09%	HRSIHEVDISNLEAALR	R	A	95.00%	4.05	0.339	0	0	1	1	2	2,040.00	885	901	TRUE	
SNU216LR_PC1_01	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	4	4	0.02%	3.09%	TKSPTDDEVTPSAVVR	R	R	95.00%	3.79	0.558	0	1	1	0	2	1,781.83	795	810	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	2	0.01%	2.90%	DMQPLSPISVHER	R	Y	95.00%	2.52	0.244	0	1	0	0	2	1,588.72	635	647	TRUE	
SNU216LR_PC1_01	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	2	0.01%	2.90%	VKSPVSLTAHSLIGASPK	K	Q	95.00%	4.72	0.445	0	0	1	0	2	1,872.00	747	764	TRUE	
SNU216LR_PC1_01	Isoform 1 of Sad1/unc-84 protein-like 1	IPI00401147	91,113.20	99.80%	1	2	2	0.01%	1.70%	HLDAHTAAHSQSPR	R	L	95.00%	3.09	0.481	0	0	1	1	2	1,607.71	228	241	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	141,860.00	99.80%	2	2	2	0.01%	3.47%	KGSLAALYDLAVLK	R	K	95.00%	2.54	0.399	0	0	1	0	2	1,541.83	321	334	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	141,860.00	99.80%	2	2	2	0.01%	3.47%	SEAEDLAEPLSSTEGVAPLSQAPSPLAIPAIK	K	E	95.00%	4.05	0.362	0	0	1	0	2	3,268.62	353	384	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	203,128.10	100.00%	2	2	3	0.02%	2.71%	GPSAGGGPGSGTSPQVEWTAR	R	R	95.00%	4.17	0.0768	0	1	0	0	2	2,035.89	33	53	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	203,128.10	100.00%	2	2	3	0.02%	2.71%	LEEGVASDEEAEEAQPGSGPSPEPEGSPPAH	R	-	95.00%	5.15	0.451	0	0	2	0	2	3,391.41	1747	1779	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	99.80%	1	1	1	0.01%	1.31%	HRHSPTGPPGFPR	R	D	95.00%	2.7	0.192	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216LR_PC1_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	5	0.03%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	4.69	0.494	0	1	2	0	2	2,577.16	2398	2420	TRUE	
SNU216LR_PC1_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	5	0.03%	1.53%	LVSFHDDSDEDLLHI	K	-	92.30%	2.81	0.112	0	2	0	0	2	1,834.79	2477	2491	TRUE	
SNU216LR_PC1_01	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	116,831.30	99.80%	2	3	3	0.02%	3.74%	NESEDNKFSDDSDDDFVQPR	R	K	95.00%	3.24	0.51	0	1	1	0	2	2,518.89	1017	1036	TRUE	
SNU216LR_PC1_01	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	116,831.30	99.80%	2	3	3	0.02%	3.74%	SEWLDPSQKSPLHVGETR	K	K	95.00%	2.97	0.225	0	0	1	0	2	2,146.00	802	819	TRUE	
SNU216LR_PC1_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	5	0.03%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	5.14	0.0382	0	1	0	0	2	2,962.19	870	898	TRUE	
SNU216LR_PC1_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	5	0.03%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	5.01	0.592	0	0	1	1	2	3,209.61	696	726	TRUE	
SNU216LR_PC1_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	5	0.03%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	7.1	0.0302	0	0	2	0	2	2,981.45	727	754	TRUE	
SNU216LR_PC1_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	4	4	5	0.03%	9.50%	HKSDVEIPATVTAFSFEDDTVPLSPLK	K	Y	95.00%	5.53	0.557	0	0	1	0	2	3,023.47	400	426	TRUE	
SNU216LR_PC1_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	4	4	5	0.03%	9.50%	IEEVLSPEGSPSKSPSK	K	K	95.00%	2.78	0.299	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216LR_PC1_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	4	4	5	0.03%	9.50%	NMSPDLRQDFNMMEQR	R	K	92.50%	2.24	0.206	0	0	1	0	2	2,091.84	40	55	TRUE	
SNU216LR_PC1_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	4	4	5	0.03%	9.50%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.79	0.389	0	0	2	0	2	2,292.10	632	652	TRUE	
SNU216LR_PC1_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	2	0.01%	14.50%	GRLSPVPVPR	R	A	95.00%	1.95	0.261	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216LR_PC1_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	2	0.01%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	3.02	0.262	0	0	0	1	2	3,687.41	259	290	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	6	8	9	0.05%	3.87%	AIQRKPNPLANSNTSGYSESK	R	K	82.50%	2.91	0.151	0	0	1	0	2	2,422.08	795	815	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	6	8	9	0.05%	3.87%	ALQHTESPSETNKPHSK	K	S	95.00%	2.35	0.223	0	1	0	1	2	1,970.90	94	110	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	6	8	9	0.05%	3.87%	DDSLDLSPQGR	R	L	95.00%	2.07	0.226	0	1	0	0	2	1,282.53	985	995	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	6	8	9	0.05%	3.87%	HLAESESLLTSPPK	K	A	95.00%	3.12	0.36	0	1	1	0	2	1,588.76	932	945	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	6	8	9	0.05%	3.87%	KRSESPPAELPSLR	K	R	95.00%	2.96	0.225	0	0	1	0	2	1,726.79	308	321	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	6	8	9	0.05%	3.87%	SESPPAELPSLR	R	R	95.00%	2.59	0.442	0	2	0	0	2	1,362.63	310	321	TRUE	
SNU216LR_PC1_01	General vesicular transport factor p115	IPI00743314	107,909.70	99.80%	2	3	3	0.02%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGKE	K	-	95.00%	4.65	0.53	0	0	1	0	2	3,916.52	929	962	TRUE	
SNU216LR_PC1_01	General vesicular transport factor p115	IPI00743314	107,909.70	99.80%	2	3	3	0.02%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	-	95.00%	7.99	0.631	0	0	1	1	2	4,157.70	927	962	TRUE	
SNU216LR_PC1_01	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	HRSLTAHSLLPLAEK	R	Q	95.00%	3.72	0.358	0	0	1	1	2	1,752.92	1379	1393	TRUE	
SNU216LR_PC1_01	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	SLTAHSLLPLAEK	R	Q	95.00%	2.35	0.264	0	1	0	0	2	1,459.76	1381	1393	TRUE	
SNU216LR_PC1_01	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	VLAVSLINEALDKGSPEK	R	T	95.00%	3.89	0.276	0	1	1	0	2	1,963.02	482	499	TRUE	
SNU216LR_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00034006	178,974.60	99.90%	1	1	1	0.01%	2.02%	GAAAADLLSSSPESQHGGTQSPGGGQPLL	R	V	91.70%	6.24	0.0087	0	0	1	0	2	3,224.52	1113	1145	TRUE	
SNU216LR_PC1_01	U5 small nuclear ribonucleoprotein 200 kDa helic	IPI00420014	244,513.80	100.00%	1	2	5	0.03%	0.75%	EEASDDDMEGDEAVVR	R	C	95.00%	4.38	0.61	0	4	1	0	2	1,862.66	222	237	TRUE	
SNU216LR_PC1_01	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	1	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.34	0.431	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC1_01	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	99.80%	1	1	1	0.01%	2.47%	SQLDDHPESDDEENFIDANDDEDMEK	K	F	95.00%	5.85	0.37	0	0	1	0	2	3,132.14	621	646	TRUE	
SNU216LR_PC1_01	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	100.00%	2	2	2	0.01%	1.83%	DASDGEDEKPPLPPR	R	S	95.00%	2.41	0.28	0	1	0	0	2	1,702.73	130	144	TRUE	
SNU216LR_PC1_01	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	100.00%	2	2	2	0.01%	1.83%	EPDPPDDRDASDGEDEKPPLPPR	R	S	95.00%	2.91	0.275	0	0	1	0	2	2,624.12	122	144	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.58	0.416	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	DLFDYSPPLHK	K	N	95.00%	2.13	0.209	0	1	0	0	2	1,411.63	507	517	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.17	0.505	0	2	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.28	0.479	0	0	1	1	2	2,726.13	369	391	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	KAEGEPQEESPLKSK	K	S	95.00%	4.82	0.42	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	KETQSPEQVKSEK	K	L	95.00%	3.09	0.27	0	1	0	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	LKDLFDYSPPLHK	K	N	84.40%	2.68	0.148	0	0	1	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	NTPSQHSHSIQHSPER	K	S	95.00%	2.68	0.256	0	1	1	0	2	2,001.80	256	271	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.94	0.515	0	2	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	4.09	0.284	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	SQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	2.97	0.25	0	0	1	0	2	2,688.10	183	204	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	4.17	0.451	0	1	1	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	20	0.12%	16.80%	YSPSQNSPIHHIPSR	R	R	95.00%	3.59	0.429	0	0	1	0	2	1,799.82	284	298	TRUE	
SNU216LR_PC1_01	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	2	2	2	0.01%	2.62%	SEEDNEIESEEEVQPK	K	T	95.00%	3.19	0.427	0	1	0	0	2	1,970.78	219	234	TRUE	
SNU216LR_PC1_01	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	2	2	2	0.01%	2.62%	VHVQFFDDSPTR	R	G	95.00%	2.68	0.442	0	1	0	0	2	1,527.66	129	140	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	7	10	0.06%	3.70%	KMSDDEDDDEEEYGKEEHEK	K	E	95.00%	4.79	0.518	0	0	2	2	2	2,536.92	123	142	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	7	10	0.06%	3.70%	MSDDEDDDEEEYGKEEHEK	K	E	95.00%	4.56	0.587	0	1	2	0	2	2,424.82	124	142	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	7	10	0.06%	3.70%	RTSFDDRLEDDDFDLIEENLGVK	K	V	95.00%	4.29	0.32	0	0	1	0	2	2,821.26	89	111	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	7	10	0.06%	3.70%	TRTPASINATPANINLADLTR	R	A	95.00%	2.89	0.271	0	1	1	0	2	2,370.12	1532	1552	TRUE	
SNU216LR_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	GLPSPYNMSSAPGSR	K	S	89.30%	2.28	0.169	0	1	0	0	2	1,600.68	2812	2826	TRUE	
SNU216LR_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	SGSLSLTQFADMISLK	R	N	95.00%	2.82	0.367	0	1	0	0	2	1,777.84	2549	2564	TRUE	
SNU216LR_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	SMSFQGIR	R	Q	95.00%	2.07	0.319	0	1	0	0	2	1,005.42	2207	2214	TRUE	
SNU216LR_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.57	0.0038	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216LR_PC1_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGR	K	P	95.00%	3.12	0.345	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC1_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	79.80%	2.88	0.137	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC1_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	3	3	3	0.02%	10.10%	RSPSPYYSR	R	D	95.00%	1.94	0.268	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC1_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.90%	1	1	1	0.01%	1.55%	SPAVKPAAAPK	K	Q	95.00%	1.59	0.324	0	1	0	0	2	1,116.58	407	417	TRUE	
SNU216LR_PC1_01	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	99.80%	1	1	2	0.01%	1.44%	LLEDSEESSEETVSR	R	A	95.00%	3.2	0.42	0	2	0	0	2	1,789.74	103	117	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	7	8	0.05%	5.00%	DRPVSQPSLVGSKEEPPPAR	K	S	95.00%	3.17	0.352	0	0	1	0	2	2,226.09	163	182	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	7	8	0.05%	5.00%	DVDDGSGSPHSPHQLSSK	R	S	95.00%	2.56	0.386	0	2	0	0	2	2,009.76	2022	2039	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	7	8	0.05%	5.00%	EKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	4.88	0.401	0	0	1	0	2	2,774.27	1997	2021	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	7	8	0.05%	5.00%	KEKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	5.69	0.505	0	0	1	1	2	2,902.36	1996	2021	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	7	8	0.05%	5.00%	SGSGGGSAKEPQEER	R	S	95.00%	3.19	0.476	0	1	0	0	2	1,555.64	183	197	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	7	8	0.05%	5.00%	VFPSEITDTVAASTAQSPGMNLSHSASSLSL	K	A	95.00%	4.61	0.307	0	0	0	1	2	4,301.05	1273	1312	TRUE	
SNU216LR_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	11	0.07%	5.69%	EIQNGNLHESDSESVPR	K	D	95.00%	3.09	0.238	0	5	0	0	2	2,070.82	66	82	TRUE	
SNU216LR_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	11	0.07%	5.69%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.15	0.214	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216LR_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	11	0.07%	5.69%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4	0.374	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216LR_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	11	0.07%	5.69%	QKTENVFVDEPLIHATTYIPLMDNADSSPVV	K	E	95.00%	6.44	0.423	0	0	0	1	2	3,922.89	216	249	TRUE	
SNU216LR_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	11	0.07%	5.69%	QPTPPSEAAASK	K	K	95.00%	2.31	0.327	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216LR_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	11	0.07%	5.69%	TENVFVDEPLIHATTYIPLMDNADSSPVVDK	K	E	95.00%	6.38	0.427	0	0	1	1	2	3,666.74	218	249	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	AESSSDEEEESEKQK	K	Q	95.00%	2.46	0.617	0	1	0	0	2	1,951.61	877	891	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	ALNTLSSPGQSSFSHGTR	K	N	95.00%	4.51	0.419	0	0	1	0	2	1,926.87	1554	1571	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	AQSYDIQAWK	R	K	95.00%	2.48	0.35	0	1	0	0	2	1,289.56	1313	1322	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	AQSYDIQAWKK	R	Q	95.00%	2.61	0.338	0	1	0	0	2	1,417.65	1313	1323	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	KAESSSDEEEESEKQK	K	Q	95.00%	2.1	0.447	0	1	1	0	2	2,079.71	876	891	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	KVLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.73	0.276	0	1	0	0	2	2,438.00	1278	1298	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	KVNEEKDGPISPK	K	K	95.00%	3	0.198	0	0	1	0	2	1,520.74	901	913	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	RTAFYNEDDSEEEQR	R	Q	95.00%	3.3	0.426	0	1	1	0	2	1,968.76	1774	1788	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	RVSSLMWEVR	R	Y	95.00%	2.13	0.26	0	1	0	0	2	1,342.63	1220	1229	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	TAFYNEDDSEEEQR	R	Q	95.00%	2.9	0.327	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	4	0.576	0	1	1	0	2	2,309.91	1279	1298	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	12	15	15	0.09%	6.70%	VVVDPVVTEQPSTSSAAK	R	T	84.00%	3.35	0.0217	0	1	0	0	2	1,893.92	1511	1528	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	2	2	2	0.01%	0.95%	RLSFAVPFR	K	E	95.00%	2.12	0.247	0	1	0	0	2	1,172.60	891	899	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	2	2	2	0.01%	0.95%	SSFDWLTGSSTDPLVDHTSPSSDSLLFAHK	R	R	90.60%	6.3	0.0162	0	0	1	0	2	3,314.49	2654	2683	TRUE	
SNU216LR_PC1_01	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	99.80%	1	2	2	0.01%	1.10%	VTQHESDNENEIQIQNK	R	L	95.00%	5.37	0.34	0	1	1	0	2	2,105.91	62	78	TRUE	
SNU216LR_PC1_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.71	0.431	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC1_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	GDRSPEPGQTWTR	K	E	95.00%	2.62	0.224	0	0	1	0	2	1,566.67	91	103	TRUE	
SNU216LR_PC1_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.91	0.414	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC1_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	SPEPGQTWTR	R	E	95.00%	1.97	0.312	0	1	0	0	2	1,238.52	94	103	TRUE	
SNU216LR_PC1_01	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENR	R	S	95.00%	6.02	0.554	0	0	1	0	2	3,005.40	1141	1166	TRUE	
SNU216LR_PC1_01	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENRSVSGI	R	V	81.40%	5.87	0	0	0	0	1	2	4,396.09	1141	1179	TRUE	
SNU216LR_PC1_01	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	SVSGFLHFDTATK	R	V	95.00%	2.73	0.449	0	1	0	0	2	1,489.67	1167	1179	TRUE	
SNU216LR_PC1_01	WD-repeat protein 33	IPI00106567	145,920.70	98.70%	1	1	1	0.01%	1.35%	DTPRPDHPPHDGHSPASR	R	E	95.00%	2.84	0.319	0	0	0	1	2	2,055.88	1197	1214	TRUE	
SNU216LR_PC1_01	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	1	1	1	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	2.91	0.212	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216LR_PC1_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	99.80%	1	2	3	0.02%	2.77%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	5.62	0.528	0	1	2	0	2	2,697.03	317	338	TRUE	
SNU216LR_PC1_01	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.90%	1	2	2	0.01%	1.67%	EKPDSDDDLDIASLVTAK	R	L	95.00%	5.1	0.561	0	1	1	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC1_01	Myosin-10	IPI00397526	228,945.20	100.00%	2	2	2	0.01%	1.01%	QLHLEGASLELSDDDTESK	R	T	95.00%	3.05	0.183	0	1	0	0	2	2,166.94	1945	1963	TRUE	
SNU216LR_PC1_01	Myosin-10	IPI00397526	228,945.20	100.00%	2	2	2	0.01%	1.01%	RQLHLEGASLELSDDDTESK	R	T	95.00%	4.61	0.345	0	0	1	0	2	2,323.05	1944	1963	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	12.40%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	5.97	0.549	0	0	1	1	2	3,065.37	341	365	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	12.40%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.2	0.53	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	12.40%	QESDPEDDDVK	R	K	95.00%	2.69	0.446	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	12.40%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.2	0.331	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	12.40%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	3.92	0.394	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	12.40%	SLSPGKENVSALDMEK	K	E	95.00%	2.57	0.163	0	1	0	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC1_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	3	5	6	0.04%	4.51%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	3.49	0.264	0	1	2	0	2	2,385.05	958	978	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	3	5	6	0.04%	4.51%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	3.86	0.403	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216LR_PC1_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	3	5	6	0.04%	4.51%	VFLTDTDPNENFSAQGEDEWPPLRK	R	V	95.00%	2.62	0.284	0	0	1	0	2	2,985.33	468	492	TRUE	
SNU216LR_PC1_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	99.20%	2	2	3	0.02%	3.35%	FPPEDFRHSPEDFR	R	R	83.80%	2.52	0.169	0	0	1	0	2	1,855.78	567	580	TRUE	
SNU216LR_PC1_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	99.20%	2	2	3	0.02%	3.35%	SRSPLGFYVHLK	R	N	95.00%	3.35	0.347	0	0	2	0	2	1,483.75	278	289	TRUE	
SNU216LR_PC1_01	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	4	0.02%	2.41%	AFGGEEVILKGSPEEK	K	V	95.00%	3.13	0.263	0	1	0	0	2	1,769.84	1409	1424	TRUE	
SNU216LR_PC1_01	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	4	0.02%	2.41%	LGSPVDNLEDMDRDDLTDDSVFTR	R	S	95.00%	4.01	0.487	0	0	1	0	2	2,805.19	171	194	TRUE	
SNU216LR_PC1_01	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	4	0.02%	2.41%	TKSPKPAESPQSATK	R	Q	95.00%	3.78	0.469	0	1	1	0	2	1,636.79	1035	1049	TRUE	
SNU216LR_PC1_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	1.32%	RSPVPAQIAITVPK	R	T	95.00%	3.24	0.478	0	1	0	0	2	1,556.86	494	507	TRUE	
SNU216LR_PC1_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	1.32%	SPSPVLR	K	L	95.00%	1.84	0.241	0	1	0	0	2	835.4074	230	236	TRUE	
SNU216LR_PC1_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	1.32%	SPVPAQIAITVPK	R	T	95.00%	2.1	0.339	0	1	0	0	2	1,400.76	495	507	TRUE	
SNU216LR_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.38%	HKYVSGSSPDLVTR	R	K	95.00%	2.73	0.244	0	0	1	0	2	1,625.77	587	600	TRUE	
SNU216LR_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.38%	NLNIINTHAYNQPEDLVYSQPEMR	R	E	95.00%	3.75	0.283	0	0	1	0	2	2,939.34	468	491	TRUE	
SNU216LR_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.38%	PRPATSTPDLASHR	R	H	95.00%	2.86	0.342	0	0	1	0	2	1,585.75	573	586	TRUE	
SNU216LR_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.38%	YVSGSSPDLVTR	K	K	95.00%	2.11	0.256	0	0	1	0	2	1,440.58	589	600	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	SPEPEATLTFPFLDK	K	M	95.00%	3.75	0.403	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	3.81	0.417	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	4	4	0.02%	2.75%	ASPGHSPHYFAASSPTSPNALPPAR	R	K	95.00%	3.13	0.245	0	0	1	0	2	2,597.19	1851	1875	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	4	4	0.02%	2.75%	DLAVPAALTPR	R	A	95.00%	2.59	0.475	0	1	0	0	2	1,203.61	1840	1850	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	4	4	0.02%	2.75%	KASPPSGLWSPAYASH	R	-	95.00%	3.57	0.322	0	1	1	0	2	1,735.78	1876	1891	TRUE	
SNU216LR_PC1_01	Isoform 1 of Ras-associated and pleckstrin homol	IPI00656088	141,415.10	99.20%	1	1	1	0.01%	1.84%	LTQAEISEQPTMATVVPQVPTSPK	R	S	95.00%	3.75	0.426	0	0	1	0	2	2,632.29	1187	1210	TRUE	
SNU216LR_PC1_01	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	3	3	0.02%	1.66%	KVSVSESNVLLDEEVLTDPK	R	I	95.00%	4.85	0.585	0	1	1	0	2	2,281.12	2574	2593	TRUE	
SNU216LR_PC1_01	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	3	3	0.02%	1.66%	SLLLTDISMENVPMDTYPIHHGDPSYR	K	T	95.00%	5.62	0.47	0	0	1	0	2	3,181.44	2439	2465	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	EHSPDSDAYNSGDDKNEK	R	H	95.00%	2.24	0.29	0	2	0	0	2	2,087.78	843	860	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	ERTPESEEENVEWETNR	K	D	95.00%	3.5	0.569	0	1	0	0	2	2,293.86	132	148	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	EVSPEVVR	K	S	94.50%	1.79	0.275	0	1	0	0	2	994.4605	196	203	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	FVHGPSPR	R	G	84.10%	1.61	0.229	0	1	0	0	2	976.4401	59	66	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	GNIETTSEDGQVFSPK	R	K	95.00%	4.19	0.442	0	2	0	0	2	1,788.77	980	995	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	GNIETTSEDGQVFSPKK	R	G	95.00%	3.42	0.402	0	1	0	0	2	1,916.86	980	996	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	GPRTPSPPPPIPEDIALGK	K	K	95.00%	3.64	0.269	0	0	1	0	2	2,099.00	260	278	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	GPRTPSPPPPIPEDIALGKK	K	Y	95.00%	3.71	0.272	0	0	1	0	2	2,227.09	260	279	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	HHSSSSQSGSSIQRHSPSPR	R	R	95.00%	2.87	0.197	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	KEDTAFSDWSDEDVPDR	K	T	95.00%	2.3	0.32	0	1	0	0	2	2,171.78	1059	1075	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	KGPRTPSPPPPIPEDIALGK	K	K	95.00%	4.37	0.299	0	0	1	0	2	2,227.09	259	278	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	KTSAVSSPLLDQQR	R	N	95.00%	3.12	0.454	0	1	0	0	2	1,609.79	236	249	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	SASPYPSHSLSSPQR	R	K	95.00%	2.8	0.368	0	2	0	0	2	1,680.74	370	384	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	SKGDSDISDEEAAQQSK	K	K	95.00%	3.51	0.424	0	1	0	0	2	1,874.77	1010	1026	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	SLSPSHLTEDR	R	Q	95.00%	2.16	0.358	0	1	1	0	2	1,321.58	875	885	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	STSPAGQHHSPISSR	R	H	95.00%	3.33	0.302	0	0	1	0	2	1,628.72	316	330	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	TPSPPPPIPEDIALGK	R	K	95.00%	2.59	0.326	0	2	0	0	2	1,788.82	263	278	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	TPSPPPPIPEDIALGKK	R	Y	95.00%	3.22	0.419	0	0	1	0	2	1,916.92	263	279	TRUE	
SNU216LR_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	19	20	24	0.14%	12.70%	YRNEGSPSPRQSPK	R	R	95.00%	2.34	0.383	0	1	0	0	2	1,842.70	826	839	TRUE	
SNU216LR_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	6	7	7	0.04%	6.52%	EKTPATTPEAR	K	V	95.00%	2.14	0.294	0	1	0	0	2	1,360.55	1206	1216	TRUE	
SNU216LR_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	6	7	7	0.04%	6.52%	KIDTHPSPSHSSTVK	R	D	95.00%	4.01	0.0946	0	1	0	0	2	1,700.80	1336	1350	TRUE	
SNU216LR_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	6	7	7	0.04%	6.52%	KIDTHPSPSHSSTVKDSLIELK	R	E	85.40%	4.12	0.123	0	0	0	1	2	2,499.25	1336	1357	TRUE	
SNU216LR_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	6	7	7	0.04%	6.52%	LYINHTPPPLSKSKER	K	E	89.80%	2.58	0.167	0	0	0	1	2	1,960.01	1363	1378	TRUE	
SNU216LR_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	6	7	7	0.04%	6.52%	NAVASVQNGPGGGPSSSSIGSASKSDESST	R	E	95.00%	5.93	0.0498	0	0	1	1	2	3,647.59	1118	1154	TRUE	
SNU216LR_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	6	7	7	0.04%	6.52%	TPVSGSLKSPVPR	K	S	95.00%	2.08	0.28	0	0	1	0	2	1,404.72	1308	1320	TRUE	
SNU216LR_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	4	5	5	0.03%	3.26%	KVKEEASSPLK	K	S	82.00%	2.47	0.128	0	0	1	0	2	1,295.66	635	645	TRUE	
SNU216LR_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	4	5	5	0.03%	3.26%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	95.00%	5.11	0.123	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216LR_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	4	5	5	0.03%	3.26%	VASDTEEADR	K	T	95.00%	2.34	0.463	1	1	0	0	2	1,172.45	654	663	TRUE	
SNU216LR_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	4	5	5	0.03%	3.26%	VASDTEEADRTSSK	K	K	95.00%	2.39	0.272	0	1	0	0	2	1,575.65	654	667	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	100.00%	4	4	4	0.02%	5.81%	DAEPQPGSPAAESLEEPDAAAGLSSTK	R	K	95.00%	4.47	0.601	0	1	0	0	2	2,705.18	747	773	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	100.00%	4	4	4	0.02%	5.81%	DSALAEAPEGLSPAPPAR	R	S	95.00%	3.41	0.412	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	100.00%	4	4	4	0.02%	5.81%	HAPEHHPGHGDRLSPGER	R	R	95.00%	2.72	0.317	0	0	0	1	2	2,065.91	994	1011	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	100.00%	4	4	4	0.02%	5.81%	RHDSVENSDSHVEK	R	K	95.00%	3.2	0.174	0	0	1	0	2	1,718.71	1163	1176	TRUE	
SNU216LR_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	7.67%	ESVSPEDSEK	K	K	85.20%	2.07	0.152	0	1	0	0	2	1,186.45	365	374	TRUE	
SNU216LR_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	7.67%	HSTSPSLDSEYNEELNEDDSQSDEKDQDAII	R	K	95.00%	6.54	0.0416	0	0	1	0	2	4,265.74	1084	1120	TRUE	
SNU216LR_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	7.67%	IIYDSDSESEETLQVK	R	N	95.00%	3.76	0.0529	0	2	0	0	2	1,935.85	65	80	TRUE	
SNU216LR_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	7.67%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	5.03	0.46	0	0	2	1	2	2,798.45	152	176	TRUE	
SNU216LR_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	AQTLPTSVVTITSESSPGKR	R	E	95.00%	4.38	0.0461	0	1	0	0	2	2,139.07	2326	2345	TRUE	
SNU216LR_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	GEQVSQNGLPAEQGSPR	K	M	95.00%	3.03	0.313	0	1	0	0	2	1,833.81	2124	2140	TRUE	
SNU216LR_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	RPPSPEPSTK	R	V	95.00%	3.03	0.387	0	1	0	0	2	1,175.55	2099	2108	TRUE	
SNU216LR_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	VSEEAESQQQWDTSKGEQVSQNGLPAEQ	K	M	95.00%	4.86	0.371	0	0	1	0	2	3,566.57	2109	2140	TRUE	
SNU216LR_PC1_01	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	3	0.02%	2.01%	EGDELEDNGKNFYESDDDQKEK	K	T	95.00%	3.66	0.38	0	0	2	0	2	2,684.05	262	283	TRUE	
SNU216LR_PC1_01	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	3	0.02%	2.01%	NFYESDDDQKEK	K	T	95.00%	2.34	0.213	0	1	0	0	2	1,597.61	272	283	TRUE	
SNU216LR_PC1_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.30%	DRTPPLLYR	R	D	95.00%	2.54	0.289	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216LR_PC1_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.30%	LKSPSQKQDGGTAPVASASPK	K	L	95.00%	3.99	0.495	0	0	1	0	2	2,134.05	763	783	TRUE	
SNU216LR_PC1_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.30%	SLSPGGAALGYR	R	D	95.00%	2.51	0.175	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216LR_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	6	6	0.04%	18.80%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.48	0.0603	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	6	6	0.04%	18.80%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ	R	V	95.00%	8.48	0.584	0	0	1	1	2	4,229.03	209	247	TRUE	
SNU216LR_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	6	6	0.04%	18.80%	ISASSATR	R	E	95.00%	1.82	0.311	0	1	0	0	2	872.3873	257	264	TRUE	
SNU216LR_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	6	6	0.04%	18.80%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.24	0.334	0	1	0	0	2	1,648.63	302	317	TRUE	
SNU216LR_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	6	6	0.04%	18.80%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	4.84	0.381	0	0	1	0	2	3,019.41	318	347	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SGEGEVSGLMR	R	K	95.00%	2.23	0.496	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216LR_PC1_01	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.97	0.35	0	1	0	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC1_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	5	0.03%	5.57%	MSSPEDDSDTKR	K	L	95.00%	2.57	0.359	0	2	0	0	2	1,447.54	382	393	TRUE	
SNU216LR_PC1_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	5	0.03%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	90.30%	3.56	0.138	0	0	1	0	2	2,928.28	227	252	TRUE	IPI00005648
SNU216LR_PC1_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	5	0.03%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	5.48	0.43	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216LR_PC1_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	5	0.03%	5.57%	SVVSFDKVKEPR	R	K	85.10%	2.42	0.156	0	0	1	0	2	1,470.74	601	612	TRUE	
SNU216LR_PC1_01	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	2.47%	NIPSPGQLDPDTR	R	I	95.00%	2.21	0.339	0	1	0	0	2	1,489.67	2556	2568	TRUE	
SNU216LR_PC1_01	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	2.47%	TPFKDEIDEFANSPSEDKEESMEIHATGK	R	H	95.00%	3.92	0.171	0	0	0	1	2	3,361.45	1862	1890	TRUE	
SNU216LR_PC1_01	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	2.47%	VPVHQHSPSEPFLEKPVPDMTQVSGPNAQ	K	S	95.00%	4.81	0.375	0	0	0	1	2	3,572.76	551	582	TRUE	
SNU216LR_PC1_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.04%	12.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	5.13	0.475	0	1	2	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC1_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.04%	12.80%	FTPVASKFSPGAPGSGGSQPNQK	K	L	93.40%	2.57	0.183	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC1_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.04%	12.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.61	0.322	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC1_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.04%	12.80%	SPGAPGPLTLK	R	E	95.00%	1.91	0.376	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC1_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.04%	12.80%	VSSIDLEIDSLSSLLDDMTK	K	N	95.00%	4.22	0.437	0	1	0	0	2	2,261.05	151	170	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 2	IPI00015973	112,587.80	99.80%	2	2	2	0.01%	4.88%	EVAENQQNQSSDPEEEKGSQPPPAAESQS	K	R	95.00%	4.12	0.491	0	0	1	0	2	3,533.53	29	60	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 2	IPI00015973	112,587.80	99.80%	2	2	2	0.01%	4.88%	EVRSPTKAPHLQLIEGK	R	K	95.00%	3.39	0.375	0	0	0	1	2	1,983.04	595	611	TRUE	
SNU216LR_PC1_01	claspin	IPI00160348,IPI00744511,IP	151,097.60	99.80%	2	2	2	0.01%	3.58%	NIDDASQMDLFHRDSDDDDQTEEQLDESEA	K	W	95.00%	3.09	0.272	0	0	0	1	2	3,604.43	1142	1171	TRUE	
SNU216LR_PC1_01	claspin	IPI00160348,IPI00744511,IP	151,097.60	99.80%	2	2	2	0.01%	3.58%	TTYDSAEEENKENLYAGK	K	N	95.00%	3.55	0.473	0	1	0	0	2	2,141.89	79	96	TRUE	
SNU216LR_PC1_01	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.80%	1	2	2	0.01%	1.63%	ASPSPQPSSQPLQIHR	R	Q	95.00%	3.35	0.372	0	1	1	0	2	1,809.86	143	158	TRUE	
SNU216LR_PC1_01	Rho GTPase activating protein 21	IPI00169307	217,333.80	99.90%	2	3	3	0.02%	1.33%	KDSSSEVFSDAAK	R	E	95.00%	3.57	0.44	0	1	0	0	2	1,450.61	921	933	TRUE	
SNU216LR_PC1_01	Rho GTPase activating protein 21	IPI00169307	217,333.80	99.90%	2	3	3	0.02%	1.33%	TQSPHSPKEESER	K	K	95.00%	2.89	0.365	0	1	1	0	2	1,591.67	1093	1105	TRUE	
SNU216LR_PC1_01	Utrophin	IPI00009329	394,494.50	100.00%	1	1	1	0.01%	0.70%	HLESSDEDEKMDEESAQIEEVLQR	K	G	95.00%	4.22	0.156	0	0	1	0	2	2,926.23	1792	1815	TRUE	
SNU216LR_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	6	6	7	0.04%	4.94%	GEEGSDDDETENGPKPK	K	K	95.00%	3.24	0.402	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	6	6	7	0.04%	4.94%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.42	0.405	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216LR_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	6	6	7	0.04%	4.94%	HPKGEEGSDDDETENGPKPK	R	K	95.00%	3.06	0.206	0	0	0	1	2	2,245.93	985	1004	TRUE	
SNU216LR_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	6	6	7	0.04%	4.94%	KGSGSEQEGEDEEGGER	R	K	95.00%	4.24	0.548	0	2	0	0	2	1,859.69	961	977	TRUE	
SNU216LR_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	6	6	7	0.04%	4.94%	KGSGSEQEGEDEEGGERK	R	K	95.00%	2.17	0.379	0	1	0	0	2	2,067.75	961	978	TRUE	
SNU216LR_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	6	6	7	0.04%	4.94%	RKGSGSEQEGEDEEGGER	R	K	95.00%	3.1	0.47	0	1	0	0	2	2,095.76	960	977	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	100.00%	3	3	3	0.02%	7.63%	APSPPLSQVFQTR	R	A	95.00%	2.72	0.336	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	100.00%	3	3	3	0.02%	7.63%	LAGLEQAILSPGQNSGNYFAPIPLEDHAENK	R	A	95.00%	4.23	0.382	0	0	0	1	2	4,443.19	365	404	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	100.00%	3	3	3	0.02%	7.63%	SSPVESLKK	R	E	88.20%	1.7	0.231	0	1	0	0	2	1,054.52	77	85	TRUE	
SNU216LR_PC1_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	3	3	0.02%	8.78%	AAESETPGKSPEK	K	K	95.00%	2.91	0.39	0	0	1	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC1_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	3	3	0.02%	8.78%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.37	0.476	0	0	1	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC1_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	3	3	0.02%	8.78%	KSPAKSPNPSTPR	K	G	95.00%	2.74	0.241	0	1	0	0	2	1,526.68	391	403	TRUE	
SNU216LR_PC1_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	4	7	9	0.05%	4.10%	KAEGTPNQGK	R	K	95.00%	2.33	0.281	0	1	0	0	2	1,109.50	221	230	TRUE	
SNU216LR_PC1_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	4	7	9	0.05%	4.10%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	4.1	0.464	0	2	1	0	2	1,960.90	609	626	TRUE	
SNU216LR_PC1_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	4	7	9	0.05%	4.10%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	3.17	0.469	0	1	1	0	2	2,089.00	609	627	TRUE	
SNU216LR_PC1_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	4	7	9	0.05%	4.10%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.53	0.548	0	1	2	0	2	2,992.36	1263	1291	TRUE	
SNU216LR_PC1_01	Hypothetical protein DKFZp686L1653 (Fragment)	IPI00385001,IPI00477040	182,484.20	99.80%	1	1	2	0.01%	1.04%	GAPSSPATGVLPSPQGK	R	S	95.00%	2.62	0.496	0	2	0	0	2	1,630.78	1595	1611	TRUE	
SNU216LR_PC1_01	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	3	3	0.02%	4.05%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	3.06	0.348	0	1	1	0	2	1,927.99	389	406	TRUE	
SNU216LR_PC1_01	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	3	3	0.02%	4.05%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	4.42	0.311	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216LR_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	5	7	7	0.04%	5.28%	NPSDSAVHSPFTK	K	R	95.00%	2.77	0.333	0	1	0	0	2	1,466.63	410	422	TRUE	
SNU216LR_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	5	7	7	0.04%	5.28%	RYPSSISSSPQK	R	D	92.00%	2.39	0.174	0	1	0	0	2	1,416.65	603	614	TRUE	
SNU216LR_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	5	7	7	0.04%	5.28%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.45	0.267	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216LR_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	5	7	7	0.04%	5.28%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	3.93	0.254	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216LR_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	5	7	7	0.04%	5.28%	YPSSISSSPQKDLTQAK	R	N	86.00%	3.46	0.0177	0	1	0	0	2	1,916.90	604	620	TRUE	
SNU216LR_PC1_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	7.93%	APVHFVEPLSPTGVAGHR	K	K	95.00%	3.19	0.202	0	0	1	0	2	1,950.96	793	810	TRUE	
SNU216LR_PC1_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	7.93%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	4.88	0.334	0	0	1	1	2	3,309.58	582	610	TRUE	
SNU216LR_PC1_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	7.93%	QDSDSDVVDIEEAEHDFMGEAHPVVFSR	R	Y	95.00%	6.21	0.517	0	0	1	0	2	3,240.35	458	485	TRUE	
SNU216LR_PC1_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	7.93%	SPQGQLDTSESKPDSFFLEPLMPAVLKPAK	R	E	95.00%	3.4	0.234	0	0	1	0	2	3,337.64	297	326	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	4.07%	DSENTPVKGGTVADLDEQDEETVTAGGK	K	E	95.00%	5.22	0.508	0	0	1	0	2	2,942.28	394	421	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	4.07%	KHSPSPPPPTPTESR	R	K	95.00%	4.12	0.543	0	2	3	0	2	1,774.76	326	340	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	4.07%	KHSPSPPPPTPTESRK	R	K	95.00%	2.99	0.222	0	0	1	0	2	1,902.85	326	341	TRUE	
SNU216LR_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	4.07%	RKHSPSPPPPTPTESR	K	K	95.00%	4.2	0.431	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216LR_PC1_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.84	0.4	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC1_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.22	0.32	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	10	0.06%	4.17%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	4.17	0.554	0	1	1	0	2	2,224.85	760	778	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	10	0.06%	4.17%	EADDDEEVDDNIPEMPSPKK	K	M	95.00%	4.51	0.556	0	1	0	0	2	2,352.94	760	779	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	10	0.06%	4.17%	SKSDGEAKPEPSPSPR	R	I	95.00%	2.84	0.224	0	1	1	0	2	1,748.79	203	218	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	10	0.06%	4.17%	VGMADANSPPKPLSKPR	R	T	95.00%	3.82	0.295	0	1	3	0	2	1,860.90	182	198	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	10	0.06%	4.17%	VNPQISDEKDEDEKEEK	K	R	95.00%	3.17	0.231	0	0	1	0	2	2,111.90	369	385	TRUE	
SNU216LR_PC1_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	3	4	6	0.04%	6.19%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	5.15	0.408	0	0	2	2	2	3,734.84	125	160	TRUE	
SNU216LR_PC1_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	3	4	6	0.04%	6.19%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.98	0.321	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216LR_PC1_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	3	4	6	0.04%	6.19%	TTPTQPSEQK	K	A	95.00%	1.95	0.365	0	1	0	0	2	1,196.52	236	245	TRUE	
SNU216LR_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.14%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.86	0.148	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216LR_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.14%	HDSPDLAPNVTYSLPR	R	T	90.00%	3.01	0.134	0	0	1	0	2	1,861.85	269	284	TRUE	
SNU216LR_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.14%	HDSPDPSPPR	R	R	95.00%	2.07	0.37	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216LR_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.14%	HDTPDPSPLR	R	G	95.00%	2.37	0.389	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216LR_PC1_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	2	3	3	0.02%	3.66%	DPSASPGDAGEQAIR	R	Q	95.00%	2.54	0.397	0	1	0	0	2	1,550.65	286	300	TRUE	
SNU216LR_PC1_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	2	3	3	0.02%	3.66%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	4.53	0.411	0	0	1	1	2	2,657.30	709	732	TRUE	
SNU216LR_PC1_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	3.18	0.38	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216LR_PC1_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	2.94	0.227	0	0	1	0	2	1,915.77	775	790	TRUE	
SNU216LR_PC1_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	2	2	2	0.01%	2.16%	SSPQLDPLR	R	K	95.00%	2.04	0.406	0	1	0	0	2	1,092.51	182	190	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	2	2	2	0.01%	2.16%	SSPQLDPLRK	R	S	95.00%	1.94	0.274	0	1	0	0	2	1,220.60	182	191	TRUE	
SNU216LR_PC1_01	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	2.85%	LSKPPFQTNPSPEMVSK	R	L	95.00%	3.5	0.137	0	1	0	0	2	1,966.93	579	595	TRUE	
SNU216LR_PC1_01	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	2.85%	RLSKPPFQTNPSPEMVSK	R	L	94.80%	3.24	0.13	0	0	1	0	2	2,123.04	578	595	TRUE	
SNU216LR_PC1_01	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	2.85%	VHADLVISKPVSKSPER	K	L	95.00%	3.11	0.397	0	0	1	0	2	1,942.02	679	695	TRUE	
SNU216LR_PC1_01	Isoform 1 of Eukaryotic translation initiation factor	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	1	1	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.16	0.461	0	1	0	0	2	1,885.77	117	134	TRUE	
SNU216LR_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	6	6	0.04%	5.22%	AASSSSPGSPVASSPSR	R	L	95.00%	3.15	0.176	0	1	0	0	2	1,611.70	1776	1792	TRUE	
SNU216LR_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	6	6	0.04%	5.22%	ADAPDAGAQSDSELPSYHQNDVSLDR	R	G	95.00%	4.65	0.517	0	1	0	0	2	2,838.19	1289	1314	TRUE	
SNU216LR_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	6	6	0.04%	5.22%	GGQSDDDEDEGVPASYHTVSLQVSQDLLD	R	A	95.00%	6.32	0.256	0	0	0	1	2	4,145.84	1472	1508	TRUE	
SNU216LR_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	6	6	0.04%	5.22%	GYTSDSEVYTDHGR	R	P	95.00%	2.74	0.475	0	1	0	0	2	1,666.64	1315	1328	TRUE	
SNU216LR_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	6	6	0.04%	5.22%	GYTSDSEVYTDHGRPGK	R	I	95.00%	3.45	0.484	0	1	1	0	2	1,948.81	1315	1331	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	ANTSGDFEKDDDAYK	K	T	95.00%	3.87	0.507	0	1	0	0	2	1,755.67	1990	2004	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	ANTSGDFEKDDDAYKTEDSDDIHFEPVVQK	K	V	93.00%	5.04	0.0536	0	0	0	1	2	3,852.61	1990	2022	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	AVVSPPKFVFGSESVK	K	S	95.00%	2.71	0.342	0	0	1	0	2	1,757.89	2507	2522	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	ELVGPPLAETVFTPKTSPENVQDR	K	F	81.40%	4.59	0.0425	0	0	1	0	2	2,784.29	1384	1407	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	ERTDVIQGDDVADATSEVEVSSTSETTPK	R	A	95.00%	6.76	0.0225	0	0	1	0	2	3,146.39	2478	2506	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	FESPATGILSPR	R	G	95.00%	2.45	0.243	0	1	0	0	2	1,354.64	946	957	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	KKPEDSPSDDDVLIVYELTPTAEQK	K	A	95.00%	5.93	0.377	0	0	1	0	2	2,897.37	2621	2645	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	KQSLPATSIPTPASFK	R	F	95.00%	3.4	0.493	0	1	1	0	2	1,752.89	1507	1522	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	LNQSGTSVGTDEESDVTQEEER	K	D	95.00%	5.27	0.0892	0	1	0	0	2	2,490.02	2284	2305	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	NADSEIKHSTPSPTR	R	Y	95.00%	2.52	0.257	0	1	0	0	2	1,719.77	770	784	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	I	95.00%	3.23	0.23	0	0	0	1	2	3,149.28	1153	1181	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	T	95.00%	4	0.289	0	0	0	1	2	3,618.57	1153	1185	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.96	0.386	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	NRPDYVSEEEEDDEDFETAVK	K	K	95.00%	4.78	0.668	0	1	0	0	2	2,596.02	2662	2682	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	TSPENVQDR	K	F	95.00%	1.9	0.461	0	2	0	0	2	1,125.46	1399	1407	TRUE	
SNU216LR_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	16	18	20	0.12%	9.31%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	4.97	0.5	0	0	2	1	2	3,670.63	2893	2924	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	3	3	3	0.02%	2.42%	EAGSPAQEFK	R	Y	95.00%	2.21	0.463	0	1	0	0	2	1,143.47	610	619	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	3	3	3	0.02%	2.42%	HIISATSLSTSPTELGSR	R	N	95.00%	4.38	0.011	0	1	0	0	2	1,936.94	216	233	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	3	3	3	0.02%	2.42%	LKFSDDEEEEEVVK	K	D	95.00%	4.4	0.304	0	1	0	0	2	1,775.76	385	398	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	3	3	3	0.02%	2.42%	SEGSEYEELPKR	H	R	95.00%	2.44	0.388	0	0	1	0	1	1,503.64	1136	1147	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	8	0.05%	6.55%	EKSESGGSEYGTGPGR	R	K	95.00%	3.04	0.391	0	1	0	0	2	1,677.68	131	146	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	8	0.05%	6.55%	ELQGDGPPSSPTNDPTVK	K	Y	95.00%	4.81	0.441	0	1	0	0	2	1,918.84	749	766	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	8	0.05%	6.55%	GGSYVFQSDEGPEPEAEESDLDSGSVHSAS	K	T	95.00%	4.96	0.152	0	0	0	1	2	3,983.68	351	388	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	8	0.05%	6.55%	KNDMDEPPPLDYGSGEDDGK	R	S	95.00%	4.68	0.405	0	0	1	0	2	2,258.88	629	648	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	8	0.05%	6.55%	METEADAPSPAPSLGER	K	L	95.00%	4.2	0.567	0	2	0	0	2	1,853.76	1638	1654	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	8	0.05%	6.55%	SATESTPGERGEEKPLDGQEHR	K	E	95.00%	2.94	0.205	0	0	1	0	2	2,490.09	1686	1707	TRUE	
SNU216LR_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	8	0.05%	6.55%	SESGGSEYGTGPGR	K	K	95.00%	2.78	0.513	0	1	0	0	2	1,420.54	133	146	TRUE	
SNU216LR_PC1_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	4	4	0.02%	3.79%	KMEESDEEAVQAK	R	V	95.00%	2.99	0.395	0	1	0	0	2	1,589.64	688	700	TRUE	
SNU216LR_PC1_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	4	4	0.02%	3.79%	RYEDDGISDDEIEGKR	R	T	95.00%	2.83	0.327	0	1	1	0	2	1,976.82	21	36	TRUE	
SNU216LR_PC1_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	4	4	0.02%	3.79%	SSPGAGPSDHHSASR	R	D	95.00%	2.21	0.325	0	0	1	0	2	1,529.61	739	753	TRUE	
SNU216LR_PC1_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	5	0.03%	7.80%	ADIPVKSSPQAAVPYKK	K	D	95.00%	2.88	0.345	0	0	1	0	2	1,878.97	601	617	TRUE	
SNU216LR_PC1_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	5	0.03%	7.80%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	4.27	0.41	0	1	1	0	2	2,296.94	948	966	TRUE	
SNU216LR_PC1_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	5	0.03%	7.80%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	95.00%	4.08	0.22	0	0	0	1	2	4,426.91	1057	1096	TRUE	
SNU216LR_PC1_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	5	0.03%	7.80%	NVHSEDFENR	R	I	93.10%	2.04	0.192	0	1	0	0	2	1,326.51	95	104	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.65	0.434	0	1	2	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	SEDESETEDEEEK	R	S	95.00%	2.58	0.404	0	1	0	0	2	1,635.54	668	680	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	4.73	0.623	0	1	0	0	2	2,607.96	668	688	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	5.42	0.615	0	0	2	0	2	2,764.06	668	689	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain containing, family G,	IPI00291711	128,247.70	100.00%	2	2	2	0.01%	2.67%	SHSVPENMVEPPLSGR	R	V	95.00%	2.49	0.298	0	1	0	0	2	1,815.81	1023	1038	TRUE	
SNU216LR_PC1_01	pleckstrin homology domain containing, family G,	IPI00291711	128,247.70	100.00%	2	2	2	0.01%	2.67%	SPLSPTETFSWPDVR	R	E	95.00%	3.19	0.507	0	1	0	0	2	1,798.80	981	995	TRUE	
SNU216LR_PC1_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.80%	2	2	2	0.01%	4.42%	IGSDPLAYEPK	R	E	95.00%	2.16	0.304	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216LR_PC1_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.80%	2	2	2	0.01%	4.42%	SKETSSPGTDDVFTPAPSDSPSSQR	R	I	95.00%	5.41	0.0675	0	0	1	0	2	2,660.14	270	294	TRUE	
SNU216LR_PC1_01	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	99.90%	1	1	1	0.01%	1.78%	TSSAFVGKTPEASPEPK	K	D	95.00%	2.99	0.378	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216LR_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	9	10	0.06%	6.15%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.77	0.587	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	9	10	0.06%	6.15%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	K	95.00%	4.03	0.415	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216LR_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	9	10	0.06%	6.15%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	6.36	0.636	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	9	10	0.06%	6.15%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	5.23	0.408	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216LR_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	9	10	0.06%	6.15%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	4.82	0.462	0	2	1	0	2	2,174.04	104	122	TRUE	
SNU216LR_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	9	10	0.06%	6.15%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	3.38	0.436	0	1	1	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	4.61	0.406	0	0	2	1	2	2,877.32	600	626	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	4.34	0.549	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	6.7	0.506	0	0	2	0	2	3,292.37	627	658	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	5.76	0.432	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216LR_PC1_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	3	3	0.02%	12.50%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	2.58	0.205	0	0	1	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC1_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	3	3	0.02%	12.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.86	0.618	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216LR_PC1_01	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.88	0.387	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216LR_PC1_01	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	6.09	0.62	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216LR_PC1_01	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	GRNDSGEENVPLDLTR	R	E	95.00%	2.9	0.292	0	1	0	0	2	1,851.82	17	32	TRUE	
SNU216LR_PC1_01	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	2.92	0.278	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	ATSSSNPSSPAPDWYKDFVTDADAEVLEHS	K	M	84.80%	4.48	0.0578	0	0	1	1	2	3,568.48	1920	1951	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	DFDSSEDEKHSK	K	K	95.00%	1.84	0.362	0	1	0	0	2	1,583.53	778	789	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	ETFSSAEGTVDKDTTIMELR	R	D	95.00%	3.99	0.493	0	1	1	0	2	2,310.02	818	837	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	HKLTVSDGESGEEK	R	K	95.00%	2.4	0.186	0	1	0	0	2	1,675.66	1275	1288	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	HKLTVSDGESGEEKK	R	T	95.00%	2.3	0.281	0	1	0	0	2	1,803.76	1275	1289	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	KKDELSDYAEK	K	S	95.00%	2.97	0.391	0	1	0	0	2	1,405.62	988	998	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	NLKTSQEGSSDDAER	K	K	95.00%	2.12	0.384	0	1	0	0	2	1,876.64	799	813	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	VYEHTSRFSPK	K	K	95.00%	2.15	0.234	0	1	0	0	2	1,430.65	269	279	TRUE	
SNU216LR_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	9	11	11	0.07%	6.23%	YVESDDEKPLDDETVNEDASNENSENDITM	K	D	95.00%	6.11	0.424	0	0	1	0	2	4,050.68	89	123	TRUE	
SNU216LR_PC1_01	Ras GTPase-activating-like protein IQGAP1	IPI00009342	189,258.60	100.00%	2	3	3	0.02%	0.91%	SKSVKEDSNLTLQEK	K	K	95.00%	3.16	0.436	0	1	1	0	2	1,785.86	1441	1455	TRUE	
SNU216LR_PC1_01	Ras GTPase-activating-like protein IQGAP1	IPI00009342	189,258.60	100.00%	2	3	3	0.02%	0.91%	SVKEDSNLTLQEK	K	K	95.00%	2.06	0.316	0	1	0	0	2	1,570.74	1443	1455	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	ASVSPMDEPVPDSESPIEK	R	V	95.00%	3.62	0.522	0	1	0	0	2	2,093.90	1249	1267	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	DVMSDETNNEETESPSQEFVNITK	R	Y	95.00%	2.86	0.172	0	0	1	0	2	2,823.16	1015	1038	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	EVPSKEEPSPVKAEVAEK	K	Q	95.00%	2.4	0.247	0	1	1	0	2	2,032.98	480	497	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	KESKEETPEVTK	K	V	95.00%	2.22	0.342	0	1	0	0	2	1,484.69	433	444	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	KLGDVSPTQIDVSQFGSFK	R	E	95.00%	3.5	0.225	0	0	1	0	2	2,133.03	1370	1388	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	KLGDVSPTQIDVSQFGSFKEDTK	R	M	95.00%	5.72	0.568	0	0	1	0	2	2,606.24	1370	1392	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	VLSPLRSPPLIGSESAYESFLSADDK	K	A	95.00%	3.82	0.421	0	0	2	0	2	2,858.39	1268	1293	TRUE	
SNU216LR_PC1_01	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	10	0.06%	5.43%	VQSLEGEKLSPK	K	S	95.00%	3.08	0.338	0	1	0	0	2	1,394.69	1644	1655	TRUE	
SNU216LR_PC1_01	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.29%	GRPPEMPVNYGSPPNLVEIHR	R	G	88.70%	3.31	0.139	0	0	1	0	2	2,439.16	134	154	TRUE	
SNU216LR_PC1_01	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.29%	IIPELVGSPTQSTSSR	K	T	95.00%	3.12	0.149	0	1	0	0	2	1,751.86	1468	1483	TRUE	
SNU216LR_PC1_01	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.29%	RLSLDIQSPPNIGLR	R	R	95.00%	3.46	0.445	0	1	1	0	2	1,758.93	694	708	TRUE	
SNU216LR_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	8	9	0.05%	1.27%	AFLAELEQNSPK	K	I	95.00%	3.1	0.447	0	1	0	0	2	1,426.66	2445	2456	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	8	9	0.05%	1.27%	AFVESQQKSPGKR	K	R	95.00%	2.15	0.324	0	0	1	0	2	1,541.75	1359	1371	TRUE	
SNU216LR_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	8	9	0.05%	1.27%	MLSSSDAITQEFMDLR	R	T	95.00%	3.72	0.562	0	1	1	0	2	1,923.82	1374	1389	TRUE	
SNU216LR_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	8	9	0.05%	1.27%	QGSFSEDVISHK	R	G	95.00%	2.77	0.451	0	1	1	0	2	1,413.60	1858	1869	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	8	9	0.05%	1.27%	RQGSFSEDVISHK	K	G	95.00%	2.64	0.277	0	0	1	0	2	1,569.71	1857	1869	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	8	9	0.05%	1.27%	SMDAMSSPTKTETVK	K	A	95.00%	2.29	0.265	0	2	0	0	2	1,724.71	2423	2437	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_01	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	100.00%	2	2	2	0.01%	0.81%	RSTELVLSPDMPR	K	T	95.00%	2.13	0.293	0	1	0	0	2	1,660.72	236	248	TRUE	
SNU216LR_PC1_01	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	100.00%	2	2	2	0.01%	0.81%	STELVLSPDMPR	R	T	95.00%	2.87	0.403	0	1	0	0	2	1,424.65	237	248	TRUE	
SNU216LR_PC1_01	PHD finger protein 3	IPI00170770	229,481.10	100.00%	3	4	4	0.02%	2.26%	HSDNEAESIADALSSTSNILASEFFEEEKQESI	K	S	95.00%	6.3	0.247	0	0	0	1	2	3,819.68	1147	1180	TRUE	
SNU216LR_PC1_01	PHD finger protein 3	IPI00170770	229,481.10	100.00%	3	4	4	0.02%	2.26%	KHSDNEAESIADALSSTSNILASEFFEEEKQE	R	S	95.00%	8.91	0.517	0	0	1	1	2	3,947.77	1146	1180	TRUE	
SNU216LR_PC1_01	PHD finger protein 3	IPI00170770	229,481.10	100.00%	3	4	4	0.02%	2.26%	MAPPVDDLSPK	R	K	95.00%	2.34	0.292	0	1	0	0	2	1,249.55	1125	1135	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	ADEGKKETSPESSLIQDEIAVK	K	L	95.00%	4.44	0.305	0	0	1	0	2	2,454.17	1147	1168	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	DGSPEAPASPEREEVALSEYK	K	T	95.00%	2.88	0.355	0	1	1	0	2	2,420.99	1345	1365	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	ESVHESIDTMSPMHK	R	N	92.10%	2.4	0.247	0	0	1	0	2	1,807.74	600	614	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	ETSPESSLIQDEIAVK	K	L	95.00%	3.44	0.507	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	GHDLSPLASDILTNTSGSMDEGDDYLPATTI	R	A	86.30%	6.09	0.0124	0	0	1	0	2	3,711.66	721	755	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	4.47	0.388	0	0	1	0	2	2,144.06	275	293	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	KETSPESSLIQDEIAVK	K	L	95.00%	3.53	0.4	0	1	1	0	2	1,953.94	1152	1168	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	RKSVPSETVVEDSR	R	T	95.00%	3.21	0.325	0	1	1	0	2	1,668.80	831	844	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	RPSPHDEEEFEVEEAAEAQAEPK	R	D	95.00%	5.88	0.43	0	0	1	0	2	2,704.14	1322	1344	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.25	0.0813	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216LR_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	14	14	0.08%	9.52%	SVPSETVVEDSR	K	T	95.00%	2.37	0.359	0	1	0	0	2	1,384.60	833	844	TRUE	
SNU216LR_PC1_01	Putative RNA-binding protein 16	IPI00298884,IPI00744707	140,703.00	99.90%	1	2	2	0.01%	1.57%	SSEPVKETVQTTQSPTPVEK	K	E	95.00%	3.29	0.284	0	1	1	0	2	2,252.07	606	625	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	99.90%	1	1	1	0.01%	2.05%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.14	0.505	0	1	0	0	2	2,194.90	677	695	TRUE	
SNU216LR_PC1_01	Leukemia virus receptor 2	IPI00009504	70,393.40	99.90%	2	2	2	0.01%	3.68%	EGALSRVSDESLSK	K	V	95.00%	2.66	0.204	0	1	0	0	2	1,637.68	249	262	TRUE	
SNU216LR_PC1_01	Leukemia virus receptor 2	IPI00009504	70,393.40	99.90%	2	2	2	0.01%	3.68%	EGALSRVSDESLSKVQEAESPVFK	K	E	95.00%	3.06	0.223	0	0	1	0	2	2,752.25	249	272	TRUE	
SNU216LR_PC1_01	Vigilin	IPI00022228	141,442.20	100.00%	1	1	2	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	4.17	0.511	0	2	0	0	2	1,859.79	26	41	TRUE	
SNU216LR_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	3.54%	RSSGFISELPSEEGK	K	K	95.00%	4.12	0.427	0	1	1	0	2	1,702.77	185	199	TRUE	
SNU216LR_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	3.54%	SERPPTILMTEEPSSPK	K	G	95.00%	2.93	0.266	0	1	1	0	2	1,978.92	299	315	TRUE	
SNU216LR_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	3.54%	SKSERPPTILMTEEPSSPK	R	G	95.00%	3.63	0.207	0	0	1	0	2	2,210.04	297	315	TRUE	
SNU216LR_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	3.54%	SSGFISELPSEEGK	R	K	95.00%	2.83	0.309	0	1	0	0	2	1,546.67	186	199	TRUE	
SNU216LR_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	3.54%	SWGQQAQEYQEQK	R	Q	95.00%	2.89	0.382	0	1	0	0	2	1,689.69	505	517	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	6	0.04%	9.99%	DKSDSDTEGLLFSR	K	D	95.00%	3.01	0.443	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	6	0.04%	9.99%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.41	0.329	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	6	0.04%	9.99%	RLPSSPASPSPKGTPEK	R	A	95.00%	2.21	0.328	0	1	0	0	2	1,895.87	537	553	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	6	0.04%	9.99%	SDSDTEGLLFSR	K	D	95.00%	2.37	0.393	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	6	0.04%	9.99%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	2.7	0.264	0	0	1	0	2	2,460.13	639	659	TRUE	
SNU216LR_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	6	0.04%	9.99%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	R	T	95.00%	6.94	0.0077	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216LR_PC1_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	99.50%	2	3	3	0.02%	3.92%	LKPGGVGAPSSSSPSPSPSAR	K	P	89.00%	3.5	0.0243	0	1	0	0	2	2,002.96	1027	1047	TRUE	
SNU216LR_PC1_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	99.50%	2	3	3	0.02%	3.92%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	4.47	0.441	0	0	1	1	2	3,153.39	1111	1139	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	6	6	0.04%	4.20%	GLLYDSDEEDEERPAR	R	K	95.00%	3.31	0.374	0	1	1	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	6	6	0.04%	4.20%	GNDPLTSSPGR	R	S	95.00%	2.28	0.308	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	6	6	0.04%	4.20%	RTDALTSSPGR	R	D	95.00%	2.37	0.358	0	1	1	0	2	1,240.57	34	44	TRUE	
SNU216LR_PC1_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	6	6	0.04%	4.20%	TDALTSSPGR	R	D	89.60%	1.82	0.217	0	1	0	0	2	1,164.43	35	44	TRUE	
SNU216LR_PC1_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.02%	13.60%	EEDEEPESPPEKK	K	T	95.00%	2.56	0.33	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC1_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.02%	13.60%	NSQEDSEDSEDKDVK	K	T	95.00%	2.74	0.279	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216LR_PC1_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.02%	13.60%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.77	0.149	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	AAKLSEGSQPAEEEEDQETPSR	R	N	95.00%	4.56	0.613	0	2	1	0	2	2,468.05	236	257	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	AESPAEKVPEESVLPLVQK	K	S	95.00%	3.9	0.458	0	1	1	0	2	2,130.07	488	506	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	ASLVALPEQTASEEETPPPLLTK	K	E	95.00%	3.55	0.433	0	1	0	0	2	2,501.24	399	421	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	EASSPPPHPQLHSEEEIEPMEGPAPPVLIQLS	K	E	95.00%	4.47	0.325	0	0	0	1	2	4,490.09	422	462	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.84	0.503	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	GVPAGNSDTEGGQPGRK	K	R	95.00%	2.46	0.396	0	1	0	0	2	1,706.75	832	848	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	LSEGSQPAEEEEDQETPSR	K	N	95.00%	4.47	0.48	0	3	0	0	2	2,197.88	239	257	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	RASHTLLPSHR	R	L	95.00%	2.59	0.282	0	0	1	0	2	1,354.67	559	569	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	RLSQPESAEK	R	H	91.00%	2.49	0.105	0	1	0	0	2	1,224.56	708	717	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.11	0.249	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.42	0.421	0	1	1	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	TAQVPSPPR	R	G	95.00%	2.37	0.425	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	TTSPLEEEER	K	E	95.00%	2.2	0.242	0	1	0	0	2	1,270.52	363	372	TRUE	
SNU216LR_PC1_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	14	18	22	0.13%	16.00%	TTSPLEEEEREIK	K	S	95.00%	2.34	0.207	0	1	0	0	2	1,640.74	363	375	TRUE	
SNU216LR_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	4	5	0.03%	28.00%	GHTASESDEQQWPEEK	R	R	95.00%	3.25	0.369	0	2	0	0	2	1,937.76	23	38	TRUE	
SNU216LR_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	4	5	0.03%	28.00%	GHTASESDEQQWPEEKR	R	L	95.00%	4.05	0.556	0	1	0	0	2	2,093.86	23	39	TRUE	
SNU216LR_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	4	5	0.03%	28.00%	LKEDILNEDEQNSPPK	R	K	95.00%	5.02	0.344	0	1	0	0	2	2,077.93	40	56	TRUE	
SNU216LR_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	4	5	0.03%	28.00%	LKEDILNEDEQNSPPKK	R	G	95.00%	5.18	0.215	0	1	0	0	2	2,206.03	40	57	TRUE	
SNU216LR_PC1_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	4	4	4	0.02%	5.97%	FSPDSQYIDNR	R	S	95.00%	2.74	0.404	0	1	0	0	2	1,421.57	382	392	TRUE	
SNU216LR_PC1_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	4	4	4	0.02%	5.97%	ISHSLYSGIEGLDESPSR	R	N	95.00%	3.68	0.465	0	1	0	0	2	2,026.91	714	731	TRUE	
SNU216LR_PC1_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	4	4	4	0.02%	5.97%	RSSDPALIGLSTSVSDSNFSSEEPSR	R	K	87.20%	5.99	0.0048	0	0	1	0	2	2,805.26	142	167	TRUE	
SNU216LR_PC1_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	4	4	4	0.02%	5.97%	SSSLESLQTAVAEVTLNGDIPFHRPR	K	P	95.00%	3.38	0.239	0	0	1	0	2	2,904.43	884	909	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NSSDQEGNNISSSSGHR	K	V	95.00%	3.19	0.478	0	1	0	0	2	1,855.72	275	291	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NTPVSPGSTFPDVKPDLEDVDGVLFVSFESK	K	E	95.00%	4.8	0.472	0	0	1	0	2	3,402.60	641	671	TRUE	
SNU216LR_PC1_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	SILPYPVSPK	K	Q	95.00%	2.48	0.172	0	1	0	0	2	1,180.60	917	926	TRUE	
SNU216LR_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	6	6	7	0.04%	7.11%	ANSGGVDLDSSGEFASIEK	R	M	95.00%	4.24	0.463	0	1	0	0	2	1,962.83	1165	1183	TRUE	
SNU216LR_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	6	6	7	0.04%	7.11%	FSPFLQTAEDNTQDEVAGAPADHHGPSDE	K	L	95.00%	4.65	0.257	0	0	0	2	2	4,129.72	1193	1230	TRUE	
SNU216LR_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	6	6	7	0.04%	7.11%	IHEKDPNSATATAPPSPLK	K	R	95.00%	3.66	0.377	0	0	1	0	2	2,054.00	146	164	TRUE	
SNU216LR_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	6	6	7	0.04%	7.11%	IHEKDPNSATATAPPSPLKR	K	R	95.00%	3.03	0.339	0	0	0	1	2	2,210.10	146	165	TRUE	
SNU216LR_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	6	6	7	0.04%	7.11%	QVAGDAPVEQATAETASPVHR	R	E	95.00%	4.63	0.24	0	0	1	0	2	2,214.02	1359	1379	TRUE	
SNU216LR_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	6	6	7	0.04%	7.11%	VTENGGSPQGIKSPSKPPGPNR	K	I	95.00%	3.13	0.26	0	0	1	0	2	2,284.11	30	51	TRUE	
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	4	4	0.02%	1.52%	AFLAELEQNSPK	K	I	95.00%	3.1	0.447	0	1	0	0	2	1,426.66	2947	2958	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	4	4	0.02%	1.52%	DEVQTSPPKVVEIGHQR	R	Q	95.00%	2.61	0.306	0	0	1	0	2	2,062.96	436	452	TRUE	
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	4	4	0.02%	1.52%	LRESPGSEQTPFMTAPEGK	K	G	95.00%	4.09	0.484	0	1	1	0	2	2,141.96	1763	1781	TRUE	
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	4	4	0.02%	1.52%	QGSFSEDVISHK	R	G	95.00%	2.77	0.451	0	1	1	0	2	1,413.60	2360	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	4	4	0.02%	1.52%	QKTPEGLQESANVK	R	I	95.00%	2.18	0.264	0	1	0	0	2	1,608.76	453	466	TRUE	
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	4	4	0.02%	1.52%	RQGSFSEDVISHK	K	G	95.00%	2.64	0.277	0	0	1	0	2	1,569.71	2359	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	4	4	0.02%	1.52%	SMDAMSSPTKTETVK	K	A	95.00%	2.29	0.265	0	2	0	0	2	1,724.71	2925	2939	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_01	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	3	3	0.02%	1.16%	HEDEQALLDQNSQTPPPSPFSVQAFNK	R	G	95.00%	6.03	0.577	0	0	1	0	2	3,104.40	2632	2658	TRUE	
SNU216LR_PC1_01	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	3	3	0.02%	1.16%	SKSDSYTLDPDTLR	R	K	95.00%	3.41	0.419	0	1	0	0	2	1,677.74	2831	2844	TRUE	
SNU216LR_PC1_01	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	3	3	0.02%	1.16%	SLSPNHNTLQTLK	R	S	95.00%	2.19	0.357	0	0	1	0	2	1,532.75	2749	2761	TRUE	
SNU216LR_PC1_01	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	3.94	0.335	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216LR_PC1_01	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	3.94	0.223	0	0	1	0	2	2,687.26	674	699	TRUE	
SNU216LR_PC1_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.02%	14.00%	AHAWPSPYKDYEVK	R	K	95.00%	2.85	0.306	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC1_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.02%	14.00%	AHAWPSPYKDYEVKK	R	E	95.00%	3.34	0.335	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216LR_PC1_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.02%	14.00%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	95.00%	5.87	0.327	0	0	1	0	2	4,125.84	299	333	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	4.21%	DSAYISSSPLGSHQVFDFR	R	S	95.00%	4.4	0.0041	0	1	0	0	2	2,192.96	1361	1379	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	4.21%	EYPSPPPSPLR	K	R	95.00%	2.8	0.305	0	2	0	0	2	1,399.57	1437	1447	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	4.21%	PSQGLPVIQSPPSSPPHR	R	D	95.00%	4.18	0.463	0	1	1	0	2	2,040.93	1343	1360	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	4.21%	QIASDSPHASPK	R	H	95.00%	2.48	0.278	0	1	0	0	2	1,397.55	305	316	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	4.21%	YQQETSVSQLPGRPKSPLSK	R	M	95.00%	3.99	0.233	0	0	1	0	2	2,310.15	1474	1493	TRUE	
SNU216LR_PC1_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	3	4	4	0.02%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.27	0.381	0	1	1	0	2	2,172.03	344	362	TRUE	
SNU216LR_PC1_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	3	4	4	0.02%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	4.77	0.142	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216LR_PC1_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	3	4	4	0.02%	6.46%	VGNESPVQELK	K	Q	95.00%	2.75	0.348	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEK	R	N	95.00%	5.29	0.555	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216LR_PC1_01	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEKNETEPPK	R	G	95.00%	7.96	0.462	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216LR_PC1_01	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	100.00%	2	2	2	0.01%	2.42%	LGPQNFIDETSDIENLLK	K	E	95.00%	3.43	0.385	0	1	0	0	2	2,126.01	629	646	TRUE	
SNU216LR_PC1_01	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	100.00%	2	2	2	0.01%	2.42%	LGPQNFIDETSDIENLLKEEEDYKEENNDSK	K	E	95.00%	4.58	0.341	0	0	1	0	2	3,735.64	629	659	TRUE	
SNU216LR_PC1_01	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	6	0.04%	5.35%	FAELPEFRPEEVLPSPTLQSLATSPR	R	A	91.40%	5.47	0.0333	0	0	2	0	2	3,071.45	1359	1384	TRUE	
SNU216LR_PC1_01	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	6	0.04%	5.35%	KNSTDLDSAPEDPTSPK	R	R	95.00%	4.58	0.0164	0	2	0	0	2	1,961.78	1395	1411	TRUE	
SNU216LR_PC1_01	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	6	0.04%	5.35%	SMSETGTAAAPGVSSELLSVAAQTLLSSDTK	R	A	95.00%	5.24	0.0007	0	1	0	0	2	3,089.46	299	329	TRUE	
SNU216LR_PC1_01	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	6	0.04%	5.35%	SSPPLPPPAEER	R	T	83.30%	2	0.175	0	1	0	0	2	1,356.62	1245	1256	TRUE	
SNU216LR_PC1_01	Serine/threonine-protein kinase MRCK beta	IPI00477763	194,318.00	99.80%	1	1	2	0.01%	1.23%	HSTPSNSSNPSGPPSPNSPHR	K	S	95.00%	5.29	0.443	0	0	2	0	2	2,300.91	1676	1696	TRUE	
SNU216LR_PC1_01	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	3	3	0.02%	4.65%	NVDSLSAPHNHPPEDPFGSVPFISHSGSPEI	K	K	95.00%	6.65	0.371	0	0	0	1	2	3,362.51	662	692	TRUE	
SNU216LR_PC1_01	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	3	3	0.02%	4.65%	SESNEDLFGLVPFDEITGSQQQK	K	V	95.00%	3.98	0.544	0	1	1	0	2	2,648.18	947	969	TRUE	
SNU216LR_PC1_01	Fatty acid synthase	IPI00026781,IPI00645907	273,427.10	100.00%	2	2	2	0.01%	1.95%	DRDSQRDLVEAVAHILGIR	R	D	81.00%	2.34	0.167	0	0	0	1	2	2,243.13	2120	2138	TRUE	
SNU216LR_PC1_01	Fatty acid synthase	IPI00026781,IPI00645907	273,427.10	100.00%	2	2	2	0.01%	1.95%	LNSVQSSERPLFLVHPIEGSTTVFHSLASR	R	L	95.00%	4	0.423	0	0	0	1	2	3,388.71	2234	2263	TRUE	
SNU216LR_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	9	10	0.06%	3.88%	GLHVVEVTYDDVPIPNSPFK	K	V	95.00%	6.51	0.472	0	1	1	0	2	2,306.11	1300	1319	TRUE	
SNU216LR_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	9	10	0.06%	3.88%	IPEINSSDMSAHVTSPSGR	K	V	95.00%	3.28	0.227	0	1	1	0	2	2,064.91	2097	2115	TRUE	
SNU216LR_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	9	10	0.06%	3.88%	LDVTILSPSR	K	K	95.00%	2.93	0.232	0	1	0	0	2	1,180.60	977	986	TRUE	
SNU216LR_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	9	10	0.06%	3.88%	LVSPGSANETSSILVESVTR	R	S	95.00%	4.28	0.208	0	2	0	0	2	2,126.04	2452	2471	TRUE	
SNU216LR_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	9	10	0.06%	3.88%	QKDFLDGVYAFEYYPSTPGR	K	Y	95.00%	4.32	0.407	0	0	1	0	2	2,433.08	503	522	TRUE	
SNU216LR_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	9	10	0.06%	3.88%	YADEEIPRSPFK	K	V	93.70%	2.75	0.105	0	1	1	0	2	1,531.68	1497	1508	TRUE	
SNU216LR_PC1_01	Isoform 1 of STE20-like serine/threonine-protein I	IPI00022827	142,697.80	100.00%	1	1	2	0.01%	1.86%	VDEDSAEDTQSNDGKEVVEVGQK	K	L	95.00%	4.61	0.334	0	0	2	0	2	2,558.08	561	583	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	4.38	0.388	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	4.34	0.393	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	VKVEPADSVESSPPSITHSPQNELK	K	G	95.00%	5.47	0.424	0	0	1	0	2	2,755.32	408	432	TRUE	
SNU216LR_PC1_01	Similar to phospholipase C, beta 3 (Fragment)	IPI00010400,IPI00181283	138,802.70	99.60%	1	1	1	0.01%	0.76%	SLGDEGLNR	K	G	92.10%	1.85	0.232	0	1	0	0	2	1,040.44	537	545	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.93	0.22	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	GSPTSAYPER	K	K	95.00%	2.04	0.377	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	HGSDPAFAPGPR	R	G	95.00%	2.91	0.527	0	1	1	0	2	1,288.55	521	532	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	RGSPTTGFIEQK	R	G	95.00%	2.57	0.186	0	0	1	0	2	1,400.66	890	901	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	RGSPTTGFIEQKGSPTSAYPER	R	R	80.00%	3.93	0.0779	0	0	1	0	2	2,526.11	890	911	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	RGSPVPPVPERR	R	S	95.00%	3	0.259	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	RLSLGQGDSTEAATEER	R	G	95.00%	3.82	0.338	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	10.90%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	2.99	0.159	0	0	1	0	2	2,639.07	4	25	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	EKPEEIQDPAALTSDAEQPSGFTFSFFDSDTK	R	D	80.60%	5.71	0.0017	0	0	1	0	2	3,614.57	897	928	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	EYDSGDTDEIIAMK	R	K	95.00%	2.38	0.286	0	1	0	0	2	1,666.66	249	262	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	FLETDSEEEQEEVNEK	R	K	95.00%	2.75	0.412	0	1	0	0	2	2,114.77	759	774	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	FLETDSEEEQEEVNEKK	R	T	95.00%	2.65	0.281	0	1	0	0	2	2,242.87	759	775	TRUE	
SNU216LR_PC1_01	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	99.90%	1	1	1	0.01%	0.68%	STPAPKEEEKVNEEQWSLR	R	E	95.00%	3.2	0.399	0	0	1	0	2	2,337.08	636	654	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	AQLSPGIYDDTSAR	K	R	95.00%	2.16	0.344	0	1	0	0	2	1,573.69	1469	1482	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	MPIEDSSPEKGR	R	E	95.00%	2.87	0.165	0	1	0	0	2	1,425.61	1190	1201	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	MPIEDSSPEKGREEAASK	R	G	95.00%	2.78	0.31	0	1	0	0	2	2,040.89	1190	1207	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	NDARSPGSISYLPSFFTK	R	L	95.00%	3.76	0.347	0	0	1	0	2	2,066.96	2180	2197	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	4.39	0.461	0	0	1	0	2	2,989.46	206	231	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	6.19	0.585	0	0	1	1	2	2,522.20	2140	2161	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	SPGSISYLPSFFTK	R	L	95.00%	2.82	0.348	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	9	0.05%	5.04%	SPNREWEVLQPAPHQVITNLPEGVR	K	L	95.00%	5.16	0.49	0	0	1	0	2	2,946.46	999	1023	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.80%	2	2	2	0.01%	2.71%	AHFNAMFQPSSPTR	R	R	95.00%	3.51	0.325	0	1	0	0	2	1,670.71	894	907	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.80%	2	2	2	0.01%	2.71%	DLDRPESQSPK	K	R	95.00%	2.33	0.265	0	1	0	0	2	1,351.59	170	180	TRUE	
SNU216LR_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	5	0.03%	4.10%	FHALSSPQSPFPSTPTSR	K	R	95.00%	3.69	0.32	0	0	1	0	2	2,023.93	1560	1577	TRUE	
SNU216LR_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	5	0.03%	4.10%	FLMPEAYPSSPR	R	K	95.00%	2.11	0.301	0	1	0	0	2	1,474.64	153	164	TRUE	
SNU216LR_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	5	0.03%	4.10%	LIDLESPTPESQK	K	S	95.00%	3.01	0.34	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216LR_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	5	0.03%	4.10%	RLSPGSDIYVTVSSMALAR	R	S	95.00%	3.89	0.549	0	0	1	0	2	2,103.03	1125	1143	TRUE	
SNU216LR_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	5	0.03%	4.10%	TLSDESIYNSQR	R	E	95.00%	2.78	0.386	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216LR_PC1_01	Zinc finger protein 592	IPI00022460	137,553.70	99.80%	2	2	2	0.01%	3.55%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	5.16	0.407	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216LR_PC1_01	Zinc finger protein 592	IPI00022460	137,553.70	99.80%	2	2	2	0.01%	3.55%	VLHSSNPVPLYAPNLSPPADSR	K	I	95.00%	5.08	0.544	0	0	1	0	2	2,411.18	558	579	TRUE	
SNU216LR_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	4	5	6	0.04%	2.69%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	3.68	0.413	0	1	1	0	2	2,327.88	548	567	TRUE	
SNU216LR_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	4	5	6	0.04%	2.69%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	3.51	0.407	0	0	2	0	2	2,563.19	145	166	TRUE	
SNU216LR_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	4	5	6	0.04%	2.69%	QQQLEEEAAKPPEPEKPVSPPPIESK	K	H	95.00%	4.42	0.366	0	0	1	0	2	2,962.45	197	222	TRUE	
SNU216LR_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	4	5	6	0.04%	2.69%	TDDTSGEDNDEKEAVASK	K	G	95.00%	3.9	0.53	0	1	0	0	2	2,070.74	550	567	TRUE	
SNU216LR_PC1_01	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	1	1	1	0.01%	0.45%	VLDDVSIRSPETK	R	C	95.00%	2.85	0.276	0	1	0	0	2	1,538.75	1292	1304	TRUE	
SNU216LR_PC1_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	HEHPPNPPVSPGK	R	T	95.00%	3.57	0.418	0	0	1	0	2	1,472.67	664	676	TRUE	
SNU216LR_PC1_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	MESSFGSPSKQESSESLPK	K	E	91.90%	4	0.0785	0	0	1	0	2	2,121.90	471	489	TRUE	
SNU216LR_PC1_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	RHEHPPNPPVSPGK	K	T	95.00%	3.26	0.419	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216LR_PC1_01	Eukaryotic translation initiation factor 3 subunit 1	IPI00029012	166,574.90	100.00%	1	1	1	0.01%	0.80%	RVPPPALSRDR	R	E	95.00%	2.46	0.211	0	0	1	0	2	1,343.69	1329	1339	TRUE	
SNU216LR_PC1_01	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	6.83%	MVPPVVVGSPPGSPSR	R	S	95.00%	2.22	0.231	0	1	0	0	2	1,722.77	216	231	TRUE	
SNU216LR_PC1_01	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	6.83%	RKDVPSPGGLSAPSSPR	R	N	95.00%	5.08	0.471	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216LR_PC1_01	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.16%	AQSPVSGPNVAHLTDGATLNDR	R	S	95.00%	4.06	0.473	0	0	1	0	2	2,300.07	1045	1066	TRUE	
SNU216LR_PC1_01	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.16%	GAPKPSSLAQK	R	E	95.00%	2.02	0.284	0	1	0	0	2	1,163.58	1698	1708	TRUE	
SNU216LR_PC1_01	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.16%	SLPSHMEEAPNVFQLYQR	R	P	95.00%	3.17	0.368	0	0	1	0	2	2,226.01	1729	1746	TRUE	
SNU216LR_PC1_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	3	3	3	0.02%	5.92%	AGAESPTMSVDGR	R	Q	95.00%	2.74	0.478	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216LR_PC1_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	3	3	3	0.02%	5.92%	GEGGSEDGSEDGLPEGIHLDKNDDGGK	R	I	95.00%	2.73	0.27	0	0	1	0	2	2,844.09	437	463	TRUE	
SNU216LR_PC1_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	3	3	3	0.02%	5.92%	TKADVTPPPDGSTTHNLEVSPK	R	E	95.00%	3.63	0.256	0	0	1	0	2	2,371.12	643	664	TRUE	
SNU216LR_PC1_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	4	4	4	0.02%	5.06%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	4.9	0.431	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216LR_PC1_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	4	4	4	0.02%	5.06%	LASPMKPVPGTPPSSK	K	A	95.00%	2.79	0.416	0	1	0	0	2	1,753.80	1205	1220	TRUE	
SNU216LR_PC1_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	4	4	4	0.02%	5.06%	LSSSDSIGPDVTDILSDIAEEASK	R	L	95.00%	5.37	0.0146	0	1	0	0	2	2,529.15	769	792	TRUE	
SNU216LR_PC1_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	4	4	4	0.02%	5.06%	NSSQSGGKPGSSPITK	K	H	95.00%	2.84	0.18	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216LR_PC1_01	Isoform 1 of FERM domain-containing protein 6	IPI00043622,IPI00184707,IP	72,046.10	99.80%	1	1	1	0.01%	1.45%	HSLSLDDIR	R	L	95.00%	1.91	0.26	0	1	0	0	2	1,135.51	541	549	TRUE	
SNU216LR_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	5	7	7	0.04%	2.92%	DSDAGSSTPTTSTR	R	S	95.00%	2.1	0.34	0	1	0	0	2	1,462.57	1448	1461	TRUE	
SNU216LR_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	5	7	7	0.04%	2.92%	GRPPAEKLSPNPPNLTK	R	K	95.00%	3.6	0.295	0	0	1	0	2	1,895.97	1476	1492	TRUE	
SNU216LR_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	5	7	7	0.04%	2.92%	IPDPDSDDVSEVDAR	K	H	95.00%	3.75	0.442	0	0	1	0	2	1,709.69	690	704	TRUE	
SNU216LR_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	5	7	7	0.04%	2.92%	KIPDPDSDDVSEVDAR	K	H	95.00%	3.58	0.573	0	1	1	0	2	1,837.79	689	704	TRUE	
SNU216LR_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	5	7	7	0.04%	2.92%	KRDSDAGSSTPTTSTR	R	S	95.00%	4.03	0.243	0	1	1	0	2	1,746.77	1446	1461	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	3	3	0.02%	3.04%	SRSPLELEPEAK	R	K	95.00%	2.8	0.288	0	1	1	0	2	1,435.68	24	35	TRUE	
SNU216LR_PC1_01	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	3	3	0.02%	3.04%	SRSPLELEPEAKK	R	L	95.00%	2.92	0.279	0	0	1	0	2	1,563.78	24	36	TRUE	
SNU216LR_PC1_01	Novel protein	IPI00409607,IPI00642366	166,735.90	100.00%	3	3	3	0.02%	4.16%	GALSPITDNTEVDTGIHVPSEDIPETMDEDS	K	D	93.00%	4.66	0.0696	0	0	1	0	2	3,720.65	597	630	TRUE	
SNU216LR_PC1_01	Novel protein	IPI00409607,IPI00642366	166,735.90	100.00%	3	3	3	0.02%	4.16%	LNQSSPDNVTDTK	K	G	95.00%	2.96	0.393	0	1	0	0	2	1,498.64	584	596	TRUE	
SNU216LR_PC1_01	Novel protein	IPI00409607,IPI00642366	166,735.90	100.00%	3	3	3	0.02%	4.16%	YDGESDKEQFDDDQK	K	V	95.00%	3.71	0.332	0	1	0	0	2	1,898.70	1133	1147	TRUE	
SNU216LR_PC1_01	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	99.80%	1	2	2	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	2.77	0.388	0	1	1	0	2	1,851.90	937	951	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGR	K	R	95.00%	3.06	0.354	0	0	1	0	2	1,631.76	1881	1894	TRUE	
SNU216LR_PC1_01	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGRR	K	K	95.00%	2.15	0.235	0	0	1	0	2	1,787.86	1881	1895	TRUE	
SNU216LR_PC1_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	2	2	0.01%	3.39%	KRPESPPSILTPPVVPTADK	K	V	95.00%	2.74	0.306	0	0	1	0	2	2,209.16	254	273	TRUE	
SNU216LR_PC1_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	2	2	0.01%	3.39%	SASPSTQQEKHPTHHER	R	G	95.00%	2.72	0.308	0	0	1	0	2	2,036.89	220	236	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.13	0.517	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	YVDEENSDGETSNHR	K	L	95.00%	3.27	0.46	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216LR_PC1_01	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	AESDGEEKEEVKEELGR	K	P	95.00%	3.27	0.48	0	0	1	0	2	2,013.87	2599	2615	TRUE	
SNU216LR_PC1_01	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	SLSDNGQPGTPDPADSGGTSAK	K	E	95.00%	3.27	0.406	0	2	0	0	2	2,138.89	1732	1753	TRUE	
SNU216LR_PC1_01	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	SVGDESWEQTQEGDVGALYHEQLALK	K	T	95.00%	4.53	0.416	0	0	1	0	2	2,969.32	783	808	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	3	3	3	0.02%	5.03%	HPPLYQAGLTPPLSPPK	R	S	95.00%	3.6	0.367	0	0	1	0	2	1,892.97	491	507	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	3	3	3	0.02%	5.03%	LSLSPALQDALHTFPQLQVEQSGEGSPEEGA	R	L	95.00%	4.28	0.321	0	0	1	0	2	3,570.71	1096	1128	TRUE	
SNU216LR_PC1_01	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	3	3	3	0.02%	5.03%	SHGLEPAAPSPR	R	L	95.00%	2.38	0.407	0	1	0	0	2	1,298.59	52	63	TRUE	
SNU216LR_PC1_01	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	2	2	3	0.02%	1.12%	SVPVNNLPERSPTDSPR	K	E	95.00%	3.38	0.449	0	0	2	0	2	1,944.92	3165	3181	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	2	2	3	0.02%	1.12%	VAQRSPVDSGTILREPTTK	K	S	95.00%	4.19	0.365	0	0	1	0	2	2,135.09	3146	3164	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.80%	2	2	2	0.01%	1.60%	AGDPGEMPQSPTGLGQPK	R	R	95.00%	3.32	0.382	0	1	0	0	2	1,862.80	1391	1408	TRUE	
SNU216LR_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.80%	2	2	2	0.01%	1.60%	QPSSPSHNTNLR	R	A	95.00%	1.94	0.258	0	1	0	0	2	1,417.62	135	146	TRUE	
SNU216LR_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	5	5	0.03%	4.35%	ADSGPTQPPLSLSPAPETK	R	R	95.00%	2.85	0.273	0	1	1	0	2	1,972.93	1893	1911	TRUE	
SNU216LR_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	5	5	0.03%	4.35%	LLPSAPQTLPDGPLASPAR	R	V	95.00%	4.06	0.527	0	1	0	0	2	1,981.02	1771	1789	TRUE	
SNU216LR_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	5	5	0.03%	4.35%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.21	0.5	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216LR_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	5	5	0.03%	4.35%	SNFSSGPGFPEYGYPADTVWPAMEQVSSRI	R	F	92.20%	6.2	0.0119	0	0	1	0	2	3,882.70	1232	1266	TRUE	
SNU216LR_PC1_01	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	5	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.21	0.725	0	0	2	0	2	3,332.21	541	570	TRUE	
SNU216LR_PC1_01	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	5	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	5.28	0.379	0	0	1	2	2	4,263.69	541	580	TRUE	
SNU216LR_PC1_01	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	99.80%	1	1	1	0.01%	1.77%	PSDVGNLDDFAESDEDEAHGPGAPEAR	K	A	95.00%	5.2	0.51	0	0	1	0	2	2,877.15	179	205	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	5	7	7	0.04%	4.12%	AFKPEETSSNSDPPSPPVLNNSHPVPR	R	S	95.00%	4.04	0.38	0	0	1	1	2	2,980.38	641	667	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	5	7	7	0.04%	4.12%	KPISDNSFSSDEEQSTGPIK	R	Y	95.00%	4.19	0.111	0	1	1	0	2	2,325.95	1295	1314	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	5	7	7	0.04%	4.12%	LDSSPVSSPR	R	K	95.00%	2.28	0.329	0	1	0	0	2	1,124.50	946	955	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	5	7	7	0.04%	4.12%	RISTSDILSEK	R	K	93.40%	2.27	0.163	0	1	0	0	2	1,328.65	350	360	TRUE	
SNU216LR_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	5	7	7	0.04%	4.12%	SFLESNYFTKPNLK	R	H	86.70%	2.63	0.105	0	1	0	0	2	1,767.84	1046	1059	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	ASDPASPHIGR	R	S	81.70%	1.97	0.234	0	1	0	0	2	1,187.52	45	55	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	DSSFTEVPRSPK	R	H	95.00%	2.23	0.346	0	1	0	0	2	1,509.60	236	247	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.94	0.467	0	1	2	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	SLTQPITTEEVVIAATLQASAHQK	R	A	95.00%	3.49	0.374	0	0	1	0	2	2,616.33	340	363	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	SNEEEETSDSSLEK	R	Q	95.00%	2.81	0.23	0	1	0	0	2	1,663.62	56	69	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	SPSFGDPQLSPEAR	R	P	95.00%	3.3	0.367	0	2	0	0	2	1,567.68	261	274	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	SPSFGDPQLSPEARPR	R	C	95.00%	2.37	0.246	0	2	0	0	2	1,900.80	261	276	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.57	0.641	0	1	1	0	2	2,293.96	896	914	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.02	0.484	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216LR_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	15	0.09%	7.83%	YGSFEEAEASYPILNR	K	A	95.00%	3.57	0.158	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216LR_PC1_01	Methionyl-tRNA synthetase	IPI00008240	101,117.50	99.80%	1	1	1	0.01%	3.11%	TSPKPAVVETVTTAKPQQIQALMDEVTK	K	Q	95.00%	5.66	0.5	0	0	0	1	2	3,090.58	824	851	TRUE	
SNU216LR_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	11	0.07%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	95.00%	3.03	0.251	0	0	1	0	2	2,486.00	175	197	TRUE	
SNU216LR_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	11	0.07%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.57	0.28	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	11	0.07%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.78	0.418	0	0	2	1	2	2,624.06	152	174	TRUE	
SNU216LR_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	11	0.07%	11.00%	SGDETPGSEVPGDK	R	A	95.00%	2.71	0.501	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	11	0.07%	11.00%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	4.3	0.525	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216LR_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	11	0.07%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	7.4	0.545	0	0	1	2	2	4,198.92	226	261	TRUE	
SNU216LR_PC1_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	99.80%	2	2	2	0.01%	5.83%	DYDDMSPR	R	R	95.00%	1.64	0.299	0	1	0	0	2	1,078.35	279	286	TRUE	
SNU216LR_PC1_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	99.80%	2	2	2	0.01%	5.83%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	2.73	0.287	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC1_01	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.20%	2	2	2	0.01%	2.07%	GKASPFEEDQNR	K	D	95.00%	2.04	0.355	0	1	0	0	2	1,457.61	133	144	TRUE	
SNU216LR_PC1_01	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.20%	2	2	2	0.01%	2.07%	QASPTEVVER	R	L	84.80%	2.03	0.176	0	1	0	0	2	1,195.54	180	189	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	8.76%	LPLVPESPRR	R	M	95.00%	2.43	0.192	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	8.76%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	2.26	0.271	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	8.76%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	3.78	0.518	0	1	1	0	2	2,008.94	381	399	TRUE	
SNU216LR_PC1_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	8.76%	SQDATFSPGSEQAEK	R	S	95.00%	3.12	0.322	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216LR_PC1_01	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	100.00%	2	3	3	0.02%	1.95%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	E	95.00%	6	0.485	0	0	1	1	2	3,839.87	515	548	TRUE	
SNU216LR_PC1_01	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	100.00%	2	3	3	0.02%	1.95%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	K	91.50%	5.24	0.0423	0	0	0	1	2	4,184.04	515	551	TRUE	
SNU216LR_PC1_01	dystonin isoform 1	IPI00074148	629,787.60	100.00%	2	2	2	0.01%	0.49%	LLDPEDVDVSSPDEK	R	S	95.00%	3.55	0.194	0	1	0	0	2	1,737.75	227	241	TRUE	
SNU216LR_PC1_01	dystonin isoform 1	IPI00074148	629,787.60	100.00%	2	2	2	0.01%	0.49%	QKSFSEDVISHK	R	G	95.00%	2.67	0.295	0	0	1	0	2	1,484.68	1880	1891	TRUE	
SNU216LR_PC1_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	2	2	0.01%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	5.17	0.56	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216LR_PC1_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	2	2	0.01%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	91.70%	4.71	0.0633	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	2	3	3	0.02%	0.46%	NLTDVSPDLDIR	K	L	88.00%	2.27	0.145	0	1	0	0	2	1,437.66	836	847	TRUE	
SNU216LR_PC1_01	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	2	3	3	0.02%	0.46%	RGSMSYLAAVEEEVEESSVK	R	S	95.00%	6.23	0.542	0	1	1	0	2	2,280.01	4106	4125	TRUE	
SNU216LR_PC1_01	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	GTDTQTPAVLSPSK	K	T	95.00%	2.89	0.489	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216LR_PC1_01	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	GTDTQTPAVLSPSKTQATLKPK	K	D	87.80%	3.49	0.103	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216LR_PC1_01	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	TNKSPEAKPLPGK	K	L	95.00%	3.69	0.385	0	0	1	0	2	1,446.74	64	76	TRUE	
SNU216LR_PC1_01	Tripartite motif protein 56	IPI00514832	81,487.20	98.60%	1	1	1	0.01%	2.38%	EPSPALGPNLDGSGLLPR	R	P	95.00%	2.57	0.369	0	1	0	0	2	1,869.91	473	490	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	8	8	0.05%	5.74%	GSVILDSGHLSTASSSDDLKGEEGSFR	R	G	90.20%	5.44	0.0312	0	0	1	0	2	2,831.27	88	114	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	8	8	0.05%	5.74%	NKLEGDSDVDSELEDRVDGVK	K	S	95.00%	5.27	0.464	0	1	1	0	2	2,399.06	1967	1987	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	8	8	0.05%	5.74%	SLAPDRSDDEHDPLDNTSRPR	K	Y	95.00%	3.84	0.393	0	0	1	1	2	2,473.07	2017	2037	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	8	8	0.05%	5.74%	SRDESASETSTPSEHSAAPSPQVEVR	R	T	95.00%	4.85	0.401	0	0	1	0	2	2,821.23	145	170	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	8	8	0.05%	5.74%	SSSPTSYWK	K	S	93.00%	2.04	0.209	0	1	0	0	2	1,122.45	2008	2016	TRUE	
SNU216LR_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	8	8	0.05%	5.74%	YSHSYLSDSDTEAK	R	L	95.00%	2.75	0.217	0	1	0	0	2	1,682.66	2038	2051	TRUE	
SNU216LR_PC1_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	4	0.02%	3.43%	DSGSDTASAIIPSTTPSVDSDDESVVK	K	D	87.70%	4.05	0.0819	0	0	1	0	2	2,760.20	183	209	TRUE	
SNU216LR_PC1_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	4	0.02%	3.43%	GEIKDSSPSSSPSPK	K	G	92.80%	3.49	0.0434	0	2	0	0	2	1,662.67	333	347	TRUE	
SNU216LR_PC1_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	4	0.02%	3.43%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	90.00%	5.3	0.0478	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	4.83%	EDPQARPLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	5.73	0.474	0	0	1	1	2	3,121.35	1851	1879	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	4.83%	KNSSTDQGSDEEGSLQK	K	E	95.00%	4.14	0.214	0	2	0	0	2	1,889.78	1081	1097	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	4.83%	NSSTDQGSDEEGSLQK	K	E	95.00%	2.84	0.277	0	1	0	0	2	1,761.68	1082	1097	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	4.83%	PLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	6	0.584	0	0	1	0	2	2,425.03	1857	1879	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	4.83%	RASWASENGETDAEGTQMTPAK	R	R	95.00%	3.44	0.343	0	1	0	0	2	2,417.01	1884	1905	TRUE	
SNU216LR_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	4.83%	TSQPPVPQGEAEEDSQGKEGPSGSGDSQLS	K	S	95.00%	3.7	0.283	0	0	1	0	2	3,466.49	746	779	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	2	2	2	0.01%	3.17%	HLSPYATLTVGDSSHK	K	T	95.00%	4.57	0.439	0	0	1	0	2	1,792.83	818	833	TRUE	
SNU216LR_PC1_01	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	2	2	2	0.01%	3.17%	LTHVDSPLEAPAGPLGQVK	R	L	95.00%	2.9	0.314	0	0	1	0	2	2,009.01	958	976	TRUE	
SNU216LR_PC1_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	6.06	0.539	0	1	0	0	2	2,816.14	239	264	TRUE	
SNU216LR_PC1_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.32	0.402	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216LR_PC1_01	132 kDa protein	IPI00002054	131,684.30	100.00%	4	5	5	0.03%	6.44%	HGLQLGAQSPGR	R	G	95.00%	2.51	0.228	0	0	1	0	2	1,300.62	1070	1081	TRUE	
SNU216LR_PC1_01	132 kDa protein	IPI00002054	131,684.30	100.00%	4	5	5	0.03%	6.44%	KAVVLPGGTATSPK	R	M	95.00%	3.25	0.432	0	1	0	0	2	1,405.75	443	456	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_01	132 kDa protein	IPI00002054	131,684.30	100.00%	4	5	5	0.03%	6.44%	NLLPAYRPNLSPPAEAGLALPPTGYR	K	C	95.00%	2.72	0.228	0	0	1	0	2	2,828.45	530	555	TRUE	
SNU216LR_PC1_01	132 kDa protein	IPI00002054	131,684.30	100.00%	4	5	5	0.03%	6.44%	TPLDLFAHFGPEPGDHSDPLPPSAPSPTR	K	E	95.00%	6.24	0.568	0	0	1	1	2	3,132.45	179	207	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	100.00%	3	3	3	0.02%	4.20%	SYSSPDITQAIQEEEK	R	R	91.60%	3.34	0.0517	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	100.00%	3	3	3	0.02%	4.20%	SYSSPDITQAIQEEEKR	R	K	90.90%	3.67	0.0165	0	1	0	0	2	2,060.92	716	732	TRUE	
SNU216LR_PC1_01	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	100.00%	3	3	3	0.02%	4.20%	YYHSPTNTVHMYPPEMAPSSAPPSTPPTHK	K	A	95.00%	3.53	0.263	0	0	0	1	2	3,402.50	668	697	TRUE	
SNU216LR_PC1_01	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	100.00%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGSSASGLAK	K	V	95.00%	4.34	0.18	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216LR_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	7	8	9	0.05%	10.20%	AETPTESVSEPEVATK	K	Q	95.00%	3.7	0.529	0	2	0	0	2	1,754.77	193	208	TRUE	
SNU216LR_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	7	8	9	0.05%	10.20%	EGEDGDQPTTPPKPLK	K	T	95.00%	3.22	0.321	0	1	0	0	2	1,788.81	174	189	TRUE	
SNU216LR_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	7	8	9	0.05%	10.20%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	4.72	0.236	0	0	1	1	2	3,076.43	162	189	TRUE	
SNU216LR_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	7	8	9	0.05%	10.20%	EWNGVVSESDSPVK	K	R	95.00%	2.9	0.401	0	1	0	0	2	1,612.69	41	54	TRUE	
SNU216LR_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	7	8	9	0.05%	10.20%	TIQEVLEEQSEDEDR	R	E	95.00%	3.44	0.241	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216LR_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	7	8	9	0.05%	10.20%	TIQEVLEEQSEDEDREAKR	R	K	95.00%	3.14	0.169	0	0	1	0	2	2,384.06	132	150	TRUE	
SNU216LR_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	7	8	9	0.05%	10.20%	VLGSEGEEEDEALSPAK	R	G	95.00%	2.97	0.462	0	1	0	0	2	1,839.79	63	79	TRUE	
SNU216LR_PC1_01	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	2	2	2	0.01%	2.10%	GRPPAEKLSPNPPK	R	L	95.00%	3.02	0.251	0	0	1	0	2	1,567.80	1369	1382	TRUE	
SNU216LR_PC1_01	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	2	2	2	0.01%	2.10%	ISPIQKPQGLDPVEILQER	R	E	95.00%	4.13	0.487	0	0	1	0	2	2,240.17	328	346	TRUE	
SNU216LR_PC1_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	98.50%	1	1	1	0.01%	4.69%	EVKAEEKSPISINVK	R	T	95.00%	2.86	0.303	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216LR_PC1_01	HSPC121	IPI00008998	44,424.70	100.00%	2	4	9	0.05%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.9	0.35	0	0	1	1	2	2,901.33	99	121	TRUE	
SNU216LR_PC1_01	HSPC121	IPI00008998	44,424.70	100.00%	2	4	9	0.05%	6.17%	WLDESDAEMELR	R	A	95.00%	2.86	0.399	0	6	1	0	2	1,573.62	110	121	TRUE	
SNU216LR_PC1_01	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	3	3	3	0.02%	1.38%	KLDPAQSASRENLLEEQGSIALR	K	Q	95.00%	2.79	0.236	0	0	1	0	2	2,605.30	1023	1045	TRUE	
SNU216LR_PC1_01	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	3	3	3	0.02%	1.38%	SLQQLAEER	R	S	88.80%	1.88	0.212	0	1	0	0	2	1,153.53	1217	1225	TRUE	
SNU216LR_PC1_01	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	3	3	3	0.02%	1.38%	WRSLQQLAEER	R	S	95.00%	2.58	0.283	0	1	0	0	2	1,495.71	1215	1225	TRUE	
SNU216LR_PC1_01	Carboxypeptidase D precursor	IPI00027078	152,917.40	99.80%	2	2	4	0.02%	1.67%	SLLSHEFQDETDTEEETLYSSK	K	-	95.00%	4.84	0.437	0	0	2	0	2	2,668.12	1358	1379	TRUE	
SNU216LR_PC1_01	Carboxypeptidase D precursor	IPI00027078	152,917.40	99.80%	2	2	4	0.02%	1.67%	SLLSHEFQDETDTEEETLYSSKH	K	-	95.00%	3.33	0.289	0	0	2	0	2	2,885.14	1358	1380	TRUE	
SNU216LR_PC2_01	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	99.60%	2	2	2	0.01%	4.87%	AVPMAPAPASPGSSNDSSAR	K	S	95.00%	3.55	0.121	0	1	0	0	2	1,949.84	750	769	TRUE	
SNU216LR_PC2_01	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	99.60%	2	2	2	0.01%	4.87%	KAPSTSHSGFPPVANGPRSPPSLR	R	C	91.70%	3.16	0.174	0	0	0	1	2	2,524.25	564	587	TRUE	
SNU216LR_PC2_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	5	5	0.03%	6.30%	ATLSSTSGLDLMSESGEGEISPQR	K	E	95.00%	4.48	0.443	0	1	0	0	2	2,532.12	672	695	TRUE	
SNU216LR_PC2_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	5	5	0.03%	6.30%	EVAATEEDVTRLPSPTSPFSSLSQDQAATSK	K	A	95.00%	5.07	0.0964	0	0	1	0	2	3,329.54	641	671	TRUE	
SNU216LR_PC2_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	5	5	0.03%	6.30%	SASVNKEPVSLPGIMR	R	R	95.00%	2.7	0.334	0	1	0	0	2	1,764.87	1157	1172	TRUE	
SNU216LR_PC2_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	5	5	0.03%	6.30%	SHSPSASQSGSQLR	R	N	95.00%	2.65	0.276	0	1	1	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC2_01	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	KTPLALAGSPTPK	K	N	95.00%	3.01	0.396	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216LR_PC2_01	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	NPEDKSPQLSLSPRPASPK	K	A	95.00%	3.2	0.192	0	0	1	0	2	2,208.01	919	937	TRUE	
SNU216LR_PC2_01	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	SPQLSLSPRPASPK	K	A	88.60%	2.7	0.142	0	1	0	0	2	1,624.75	924	937	TRUE	
SNU216LR_PC2_01	Isoform 2 of Epidermal growth factor receptor kir	IPI00253281,IPI00301250	80,308.90	99.80%	2	2	2	0.01%	4.87%	APEPQLSPGSDASEVR	R	A	95.00%	2.36	0.31	0	1	0	0	2	1,719.76	625	640	TRUE	
SNU216LR_PC2_01	Isoform 2 of Epidermal growth factor receptor kir	IPI00253281,IPI00301250	80,308.90	99.80%	2	2	2	0.01%	4.87%	DRSPAAETPPLQR	R	R	95.00%	2.99	0.349	0	1	0	0	2	1,517.71	180	192	TRUE	
SNU216LR_PC2_01	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.80%	1	2	3	0.02%	1.63%	ASPSPQPSSQPLQIHR	R	Q	95.00%	3.97	0.364	0	1	2	0	2	1,809.86	143	158	TRUE	
SNU216LR_PC2_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	3	4	0.02%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	6.1	0.513	0	0	1	2	2	3,538.48	736	766	TRUE	
SNU216LR_PC2_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	3	4	0.02%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	4.85	0.504	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216LR_PC2_01	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	2	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.9	0.357	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216LR_PC2_01	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	2	0.01%	1.27%	SSDGSLSHEEDLAK	R	V	92.70%	2.56	0.151	0	1	0	0	2	1,554.63	238	251	TRUE	
SNU216LR_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	4.64%	FDHESSPGTDEDKSG	K	-	95.00%	4.19	0.385	0	2	0	0	2	1,687.61	740	754	TRUE	
SNU216LR_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	4.64%	IRSSVEKENQK	K	S	95.00%	2.53	0.39	0	1	0	0	2	1,477.64	714	724	TRUE	
SNU216LR_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	4.64%	KFDHESSPGTDEDK	K	S	82.20%	2.63	0.133	0	0	1	0	2	1,671.65	739	752	TRUE	
SNU216LR_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	4.64%	KFDHESSPGTDEDKSG	K	-	95.00%	5.06	0.549	0	4	1	0	2	1,815.71	739	754	TRUE	
SNU216LR_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	4.64%	SETPPHWR	R	Q	95.00%	1.97	0.405	0	1	0	0	2	1,089.45	356	363	TRUE	
SNU216LR_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	10	0.06%	23.90%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.59	0.53	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	10	0.06%	23.90%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	92.90%	6.28	0.0175	0	0	2	0	2	3,473.52	264	296	TRUE	
SNU216LR_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	10	0.06%	23.90%	KSTGSPTQETQAPFIAK	K	R	95.00%	3.57	0.145	0	1	0	0	2	1,870.89	67	83	TRUE	
SNU216LR_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	10	0.06%	23.90%	QSSPSGSEQLVR	R	R	95.00%	2.76	0.419	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	10	0.06%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQK	R	R	95.00%	4.71	0.0065	0	1	1	0	2	2,990.13	16	40	TRUE	
SNU216LR_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	10	0.06%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	94.70%	7.4	0.0057	0	0	1	0	2	3,066.27	16	41	TRUE	
SNU216LR_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	10	0.06%	23.90%	STGSPTQETQAPFIAK	K	R	95.00%	2.81	0.36	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC2_01	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	100.00%	3	4	4	0.02%	3.80%	AHFNAMFQPSSPTR	K	R	95.00%	4.45	0.484	0	1	1	0	2	1,670.71	894	907	TRUE	
SNU216LR_PC2_01	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	100.00%	3	4	4	0.02%	3.80%	DLDRPESQSPK	K	R	95.00%	2.61	0.211	0	1	0	0	2	1,351.59	170	180	TRUE	
SNU216LR_PC2_01	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	100.00%	3	4	4	0.02%	3.80%	RPGFSPTSHR	R	L	95.00%	2.15	0.25	0	0	1	0	2	1,221.55	908	917	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	98.70%	1	1	1	0.01%	1.44%	ASLEDAPVDDLTR	R	K	95.00%	2.51	0.328	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	4	4	5	0.03%	4.96%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	5.28	0.532	0	0	2	0	2	2,778.05	587	608	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	4	4	5	0.03%	4.96%	IRQEDENFNSLLQNGDILNSSTEEK	K	F	95.00%	5.9	0.451	0	0	1	0	2	2,973.35	695	719	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	4	4	5	0.03%	4.96%	TEDVMFISDNESFNPSLWEEQR	R	K	95.00%	3.44	0.369	0	0	1	0	2	2,753.14	433	454	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	4	4	5	0.03%	4.96%	TEDVMFISDNESFNPSLWEEQRK	R	Q	95.00%	4.32	0.492	0	0	1	0	2	2,881.24	433	455	TRUE	
SNU216LR_PC2_01	Plastin-2	IPI00010471	70,160.90	99.10%	1	1	2	0.01%	1.92%	GSVSDEEMMELR	R	E	95.00%	2.45	0.474	0	2	0	0	2	1,462.56	3	14	TRUE	
SNU216LR_PC2_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	22	0.14%	7.28%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	4.48	0.353	0	2	3	0	2	2,141.98	652	670	TRUE	
SNU216LR_PC2_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	22	0.14%	7.28%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.45	0.535	0	11	3	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC2_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	22	0.14%	7.28%	TSVQTEDDQLIAGQSAR	R	A	95.00%	3.79	0.455	0	2	0	0	2	1,898.85	654	670	TRUE	
SNU216LR_PC2_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	22	0.14%	7.28%	VLTDAVDDITSIDDFLAVSENHILEDVNK	R	C	95.00%	5.54	0.453	0	0	1	0	2	3,280.55	497	525	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	15	0.09%	6.41%	KLPVDSVFNKFEDEDSDDVPR	K	K	95.00%	3.2	0.232	0	0	1	0	2	2,531.13	688	708	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	15	0.09%	6.41%	LGASNSPGQPNSVK	K	R	95.00%	3.11	0.422	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	15	0.09%	6.41%	LGASNSPGQPNSVKR	K	K	95.00%	3.35	0.371	0	2	1	0	2	1,591.76	672	686	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	15	0.09%	6.41%	QEPESEEEEEEKQEK	K	E	95.00%	3.3	0.447	0	4	0	0	2	1,956.76	579	593	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	15	0.09%	6.41%	QEPESEEEEEEKQEKEEK	K	R	95.00%	3.49	0.43	0	0	6	0	2	2,342.94	579	596	TRUE	
SNU216LR_PC2_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYK	R	R	95.00%	3.8	0.394	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216LR_PC2_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYKR	R	L	94.50%	2.4	0.182	0	0	1	0	2	1,563.74	384	396	TRUE	
SNU216LR_PC2_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	SFAGNLNTYKR	R	L	88.20%	2.26	0.15	0	1	0	0	2	1,350.62	386	396	TRUE	
SNU216LR_PC2_01	Isoform 2 of Tax1-binding protein 1	IPI00106559,IPI00657950	90,876.90	99.80%	1	1	1	0.01%	3.35%	ASSPVEELLTMEDEGNSDMLVVTTK	R	A	95.00%	3.72	0.198	0	0	1	0	2	2,775.24	122	146	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	4.69	0.0251	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	115,283.40	100.00%	3	3	4	0.02%	8.64%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.25	0.317	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	115,283.40	100.00%	3	3	4	0.02%	8.64%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	5.41	0.43	0	0	2	0	2	3,370.35	852	880	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	115,283.40	100.00%	3	3	4	0.02%	8.64%	TKPLASVTNANTSSTQAAPVAVTTPTVSSG	K	F	94.40%	5.22	0.0514	0	0	0	1	2	3,990.04	374	413	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tetratricopeptide repeat protein 7B	IPI00337641,IPI00456534	84,458.00	98.70%	1	1	1	0.01%	3.10%	SPKPGPAPHDQELGFFLETGLQR	R	A	95.00%	3.46	0.242	0	0	1	0	2	2,601.25	100	122	TRUE	
SNU216LR_PC2_01	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	3	4	4	0.02%	6.07%	LHSSNPNLSTLDFGEEK	R	N	95.00%	3.94	0.499	0	1	1	0	2	1,967.87	270	286	TRUE	
SNU216LR_PC2_01	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	3	4	4	0.02%	6.07%	QLMEQDASSSPSAQVIGLK	K	N	95.00%	4.66	0.415	0	1	0	0	2	2,068.96	332	350	TRUE	
SNU216LR_PC2_01	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	3	4	4	0.02%	6.07%	RIHAESLLLDSPAVAK	R	S	95.00%	3.88	0.355	0	0	1	0	2	1,799.94	369	384	TRUE	
SNU216LR_PC2_01	Nardilysin	IPI00243221,IPI00747052	139,288.40	99.80%	1	2	2	0.01%	1.15%	RGSLSNAGDPEIVK	R	S	95.00%	2.82	0.184	0	1	1	0	2	1,522.73	92	105	TRUE	
SNU216LR_PC2_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	4	4	0.02%	1.97%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	3.4	0.105	0	1	0	0	2	1,983.92	2451	2470	TRUE	
SNU216LR_PC2_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	4	4	0.02%	1.97%	GAANASGSSPDAPAK	K	D	95.00%	2.59	0.296	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216LR_PC2_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	4	4	0.02%	1.97%	KGAANASGSSPDAPAK	R	D	95.00%	4.84	0.411	0	1	0	0	2	1,508.67	2420	2435	TRUE	
SNU216LR_PC2_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	4	4	0.02%	1.97%	LLVRPTSSETPSAAELVSAIEELVK	R	S	84.20%	5.93	0.0063	0	0	1	0	2	2,719.42	1894	1918	TRUE	
SNU216LR_PC2_01	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.80%	2	2	2	0.01%	6.73%	TDGSISGDRQPVTVADYISR	R	A	95.00%	3.21	0.324	0	0	1	0	2	2,217.02	598	617	TRUE	
SNU216LR_PC2_01	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.80%	2	2	2	0.01%	6.73%	TVMDGGLESDGPNMTENGLEDESRPQR	R	R	95.00%	4.61	0.449	0	0	1	0	2	3,014.25	558	584	TRUE	
SNU216LR_PC2_01	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	3	3	3	0.02%	4.99%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	3.36	0.107	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC2_01	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	3	3	3	0.02%	4.99%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	3.83	0.411	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216LR_PC2_01	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	3	3	3	0.02%	4.99%	QVLQSTQSPR	R	T	95.00%	2.83	0.29	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC2_01	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	2	2	2	0.01%	9.77%	ARPSQFPEQSSSAQQNGSVSDISPVQAAK	R	K	95.00%	5.92	0.33	0	0	1	0	2	3,081.43	98	126	TRUE	
SNU216LR_PC2_01	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	2	2	2	0.01%	9.77%	ELTVDPTAAGDVRPIMHHPPNQIDDLETQV	K	D	95.00%	5.18	0.367	0	0	0	1	2	4,243.99	532	569	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	7.48%	DSGSDTASAIIPSTTPSVDSDDESVVK	K	D	95.00%	5.23	0.0311	0	1	0	0	2	2,760.20	183	209	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	7.48%	GEIKDSSPSSSPSPK	K	G	95.00%	3.21	0.239	0	1	0	0	2	1,582.70	333	347	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	7.48%	HLFSSTENLAAGSWKEPAEGGGLSSDR	K	Q	95.00%	5.67	0.522	0	0	1	0	2	2,883.29	353	379	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	7.48%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	88.40%	6.34	0.0221	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	7.48%	NNMTASMFDLSMK	R	D	95.00%	2.13	0.328	0	1	0	0	2	1,569.61	151	163	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	7.48%	RSSLLSLMTGK	R	K	95.00%	2.82	0.437	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	7.48%	RSSLLSLMTGKK	R	D	93.10%	2.43	0.204	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC2_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	3	3	0.02%	9.09%	GNSRPGTPSAEGGSTSSTLR	R	A	94.80%	2.32	0.304	0	1	0	0	2	1,998.89	383	402	TRUE	
SNU216LR_PC2_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	3	3	0.02%	9.09%	IHDLEDDLEMSSDASDASGEEGGR	R	V	95.00%	3.26	0.325	0	0	1	0	2	2,615.01	207	230	TRUE	
SNU216LR_PC2_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	3	3	0.02%	9.09%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	5.36	0.569	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216LR_PC2_01	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.80%	2	3	3	0.02%	5.30%	EQSSDLTPSGDVSPVKPLSR	R	S	95.00%	3.45	0.383	0	0	1	0	2	2,179.03	365	384	TRUE	
SNU216LR_PC2_01	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.80%	2	3	3	0.02%	5.30%	YGGDSDHPSDGETSVQPMMTK	K	I	95.00%	3.04	0.186	0	1	1	0	2	2,398.86	267	287	TRUE	
SNU216LR_PC2_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	6	0.04%	8.98%	AAESETPGKSPEK	K	K	95.00%	2.92	0.336	0	1	1	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC2_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	6	0.04%	8.98%	ATNESEDEIPQLVPIGK	K	K	95.00%	2.92	0.342	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC2_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	6	0.04%	8.98%	ATNESEDEIPQLVPIGKK	K	T	95.00%	2.74	0.298	0	0	1	0	2	2,048.00	357	374	TRUE	
SNU216LR_PC2_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	6	0.04%	8.98%	KSPAKSPNPSTPR	K	G	95.00%	2.68	0.484	0	1	0	0	2	1,606.64	391	403	TRUE	
SNU216LR_PC2_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	6	6	0.04%	11.90%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	3.81	0.34	0	1	1	0	2	2,534.18	149	170	TRUE	
SNU216LR_PC2_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	6	6	0.04%	11.90%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	4.08	0.253	0	1	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC2_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	6	6	0.04%	11.90%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	3.66	0.42	0	0	1	0	2	1,912.96	264	282	TRUE	
SNU216LR_PC2_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	6	6	0.04%	11.90%	SPGAPGPLTLK	R	E	95.00%	1.87	0.183	1	0	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	9	10	0.06%	14.70%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	5.27	0.184	0	0	1	1	2	2,410.09	593	615	TRUE	
SNU216LR_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	9	10	0.06%	14.70%	AVAEEDNGSIGEETDSSPGR	K	K	95.00%	4.97	0.567	0	1	0	0	2	2,099.84	652	671	TRUE	
SNU216LR_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	9	10	0.06%	14.70%	AVAEEDNGSIGEETDSSPGRK	K	K	95.00%	4.25	0.129	0	1	0	0	2	2,227.94	652	672	TRUE	
SNU216LR_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	9	10	0.06%	14.70%	DLTHSDSESSLHMSDR	R	Q	95.00%	3.36	0.299	0	1	2	0	2	1,912.74	515	530	TRUE	
SNU216LR_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	9	10	0.06%	14.70%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	5.18	0.524	0	0	1	1	2	2,350.24	559	580	TRUE	
SNU216LR_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	9	10	0.06%	14.70%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	3.66	0.356	0	0	1	0	2	2,001.82	616	634	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	94.40%	6.39	0.02	0	0	1	1	2	4,155.93	282	317	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	95.00%	4.98	0.378	0	0	0	1	2	4,250.79	1206	1243	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	4.37	0.524	0	1	1	0	2	2,641.12	541	563	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	KNGSTAVAESVASPQK	R	T	92.80%	2.76	0.192	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	6.46	0.562	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	3.38	0.372	0	0	2	0	2	2,457.22	1090	1111	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	SEDMPFSPK	R	A	95.00%	2.48	0.321	0	1	0	0	2	1,117.43	264	272	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	STPFIVPSSPTEQEGR	R	Q	95.00%	2.45	0.232	0	1	0	0	2	1,811.82	377	392	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	11	12	0.07%	10.30%	TSSGTSLSAMHSSGSSGK	R	G	84.80%	3.42	0.0275	0	1	0	0	2	1,748.72	1320	1337	TRUE	
SNU216LR_PC2_01	HSPC121	IPI00008998	44,424.70	100.00%	2	3	3	0.02%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.82	0.441	0	0	1	1	2	2,901.33	99	121	TRUE	
SNU216LR_PC2_01	HSPC121	IPI00008998	44,424.70	100.00%	2	3	3	0.02%	6.17%	WLDESDAEMELR	R	A	95.00%	2.83	0.322	0	1	0	0	2	1,573.62	110	121	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	AAVLSDSEDEEK	K	A	95.00%	2.16	0.306	0	1	0	0	2	1,452.52	394	405	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	AAVLSDSEDEEKASAK	K	K	95.00%	2.52	0.352	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	EAEDSDSDDNIKR	K	G	95.00%	2.2	0.363	0	3	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	EKTIASDSEEEAGK	R	E	95.00%	2.81	0.415	0	1	0	0	2	1,653.63	433	446	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	EKTIASDSEEEAGKELSDK	R	K	95.00%	3.08	0.377	0	1	0	0	2	2,225.91	433	451	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	FHSSDSEEEEHKK	K	Q	95.00%	1.92	0.351	0	2	1	0	2	1,828.59	360	372	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	GHHVTDSENDEPLNLNASDSESEELHR	K	Q	91.90%	4.27	0.0942	0	0	0	1	2	3,191.26	63	89	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	GPASDSETEDASR	K	H	95.00%	2.45	0.567	0	3	0	0	2	1,481.48	310	322	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	HQASDSENEELPKPR	R	I	95.00%	3.78	0.287	0	1	1	0	2	1,816.79	232	246	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	HQASDSENEEPPKPR	R	M	95.00%	2.35	0.373	0	3	2	0	2	1,880.72	193	207	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	HSENETSDREDGLPK	R	G	95.00%	2.57	0.189	0	1	0	0	2	1,793.73	48	62	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	ISDSESEDPPR	R	H	95.00%	2.32	0.279	0	1	0	0	2	1,391.48	247	257	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	MDSDEDEKEGEEEK	K	V	95.00%	2.93	0.347	0	2	1	0	2	1,749.60	375	388	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	NQASDSENEELPKPR	R	V	95.00%	3.6	0.365	0	2	2	0	2	1,873.74	284	298	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	QKMDSDEDEKEGEEEK	K	V	95.00%	3.69	0.399	0	0	1	0	2	2,021.75	373	388	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	TIASDSEEEAGK	K	E	89.10%	1.78	0.247	0	1	0	0	2	1,396.49	435	446	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	TIASDSEEEAGKELSDK	K	K	95.00%	2.86	0.422	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	TIASDSEEEAGKELSDKK	K	N	95.00%	3.38	0.31	0	1	1	0	2	2,096.87	435	452	TRUE	
SNU216LR_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	37	0.23%	24.40%	VSDSESEGPQK	R	G	95.00%	2.58	0.479	0	2	0	0	2	1,242.49	299	309	TRUE	
SNU216LR_PC2_01	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	100.00%	2	3	3	0.02%	3.62%	EGVNQPAAVVMEDSSPHEALR	K	C	88.70%	3.49	0.121	0	0	1	0	2	2,316.03	625	645	TRUE	
SNU216LR_PC2_01	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	100.00%	2	3	3	0.02%	3.62%	EKPDSDDDLDIASLVTAK	R	L	95.00%	4.5	0.6	0	1	1	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC2_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	3	0.02%	1.46%	ITHSPDSVK	K	S	89.90%	1.55	0.284	0	1	0	0	2	1,063.48	649	657	TRUE	
SNU216LR_PC2_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	3	0.02%	1.46%	KGSDSSIPDEEK	R	M	95.00%	3.17	0.254	0	1	0	0	2	1,371.57	315	326	TRUE	
SNU216LR_PC2_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	3	0.02%	1.46%	TSPLVSQNNEQGSTLR	R	D	95.00%	2.91	0.249	0	1	0	0	2	1,810.83	2052	2067	TRUE	
SNU216LR_PC2_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	99.60%	1	1	1	0.01%	0.66%	QHYLSSEDEPDDNPDVLDSR	K	I	95.00%	3.12	0.273	0	0	1	0	2	2,490.93	2775	2794	TRUE	
SNU216LR_PC2_01	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	1	1	1	0.01%	2.62%	SLTPAVPVESKPDKPSGK	K	S	95.00%	2.91	0.411	0	0	1	0	2	1,916.97	111	128	TRUE	
SNU216LR_PC2_01	Isoform Alpha of Tripartite motif protein 3	IPI00152001,IPI00216078,IP	72,480.90	99.80%	2	2	2	0.01%	3.49%	REDSPGPEVQPMDK	K	Q	95.00%	4.24	0.43	0	1	0	0	2	1,664.70	4	17	TRUE	
SNU216LR_PC2_01	Isoform Alpha of Tripartite motif protein 3	IPI00152001,IPI00216078,IP	72,480.90	99.80%	2	2	2	0.01%	3.49%	VKSPGGPGSHVR	R	Q	95.00%	3.46	0.434	0	0	1	0	2	1,257.61	359	370	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	4	4	0.02%	2.97%	DSQSASGEERPPEADGK	R	K	95.00%	2.51	0.28	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	4	4	0.02%	2.97%	KGNSPNSEPPTPK	K	T	95.00%	3.25	0.351	0	1	0	0	2	1,432.65	377	389	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	4	4	0.02%	2.97%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	2.94	0.346	0	0	0	1	2	2,537.95	339	359	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	4	4	0.02%	2.97%	SDSGGSSSEPFDR	R	H	95.00%	2.81	0.432	0	1	0	0	2	1,407.51	759	771	TRUE	
SNU216LR_PC2_01	Ribosomal RNA upstream binding transcription fa	IPI00384556	75,941.80	99.80%	1	1	1	0.01%	1.38%	GKLPESPKR	R	A	86.00%	1.9	0.189	0	1	0	0	2	1,091.56	321	329	TRUE	
SNU216LR_PC2_01	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	2	2	2	0.01%	3.32%	KVSLVLEK	R	M	95.00%	2.31	0.154	0	1	0	0	2	995.5538	336	343	TRUE	
SNU216LR_PC2_01	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	2	2	2	0.01%	3.32%	VASPGSTIDTAPLSSVDSLINKFDSQLGGQA	K	G	95.00%	6.52	0.0777	0	0	1	0	2	3,311.62	163	194	TRUE	
SNU216LR_PC2_01	NOL1/NOP2/Sun domain family 2 protein	IPI00306369	86,472.80	100.00%	1	2	2	0.01%	2.61%	ESTQLSPADLTEGKPTDPSK	R	L	95.00%	3.41	0.265	0	1	1	0	2	2,181.00	451	470	TRUE	
SNU216LR_PC2_01	Striatin	IPI00014456,IPI00654594	81,689.60	99.60%	2	2	2	0.01%	7.31%	FLESAAADFSDEDEDDDVDGR	K	E	95.00%	4.7	0.591	0	1	0	0	2	2,397.89	236	256	TRUE	
SNU216LR_PC2_01	Striatin	IPI00014456,IPI00654594	81,689.60	99.60%	2	2	2	0.01%	7.31%	YGTELNQGDMKPPSYDSDEGNETEVQPQC	K	Q	92.60%	6.48	0.0229	0	0	1	0	2	4,223.79	121	156	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	2	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	4.06	0.408	0	1	1	1	2	1,836.88	210	226	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	2	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	3.47	0.333	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	2	0.01%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.97	0.582	0	1	1	0	2	2,727.04	12	35	TRUE	
SNU216LR_PC2_01	Double-strand-break repair protein rad21 homolc	IPI00006715	71,691.60	100.00%	2	2	3	0.02%	9.19%	EGSAFEDDDMLVSTTTSNLLLESEQSTSNLN	R	I	95.00%	5.47	0.102	0	0	2	0	2	3,684.60	173	205	TRUE	
SNU216LR_PC2_01	Double-strand-break repair protein rad21 homolc	IPI00006715	71,691.60	100.00%	2	2	3	0.02%	9.19%	EKEKEDDEEEEDEDASGGDQDDQEER	K	R	95.00%	5.08	0.449	0	0	1	0	2	3,020.09	530	554	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	4.27	0.271	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	ARHDSPDPSPPR	R	R	95.00%	3.12	0.365	0	1	1	0	2	1,411.61	193	204	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	ATDSDLSSPR	K	H	95.00%	2.15	0.252	0	1	0	0	2	1,128.46	351	360	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	HDSPDLAPNVTYSLPR	R	T	95.00%	4.04	0.377	0	1	1	0	2	1,861.85	269	284	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	HDSPDPSPPR	R	R	95.00%	1.91	0.394	0	2	0	0	2	1,264.44	195	204	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	HDSPDPSPPRR	R	P	95.00%	2.34	0.431	0	1	0	0	2	1,420.54	195	205	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	HDTPDPSPLR	R	G	95.00%	2.41	0.362	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	HDTPDSSPR	R	R	95.00%	1.74	0.347	0	1	0	0	2	1,091.42	121	129	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	NSKYEYDPDISPPR	K	K	95.00%	2.61	0.242	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	VRHDSPDPSPPRR	R	A	94.30%	2.53	0.206	0	0	0	1	2	1,675.71	218	230	TRUE	
SNU216LR_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	11	13	14	0.09%	14.10%	YEYDPDISPPR	K	K	94.20%	2.14	0.201	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	ETDPVKSPPLPEHQK	K	I	95.00%	2.9	0.371	0	0	1	0	2	1,781.85	102	116	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	HASPDKWNDKPK	K	N	95.00%	2.93	0.314	0	0	1	0	2	1,502.68	85	96	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	KPGPPLSPEIR	R	S	95.00%	2.32	0.27	0	1	0	0	2	1,270.66	421	431	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	KPGPPLSPEIRSPAGSPELR	R	K	95.00%	2.78	0.306	0	0	1	0	2	2,325.04	421	440	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	KPGPSGPSESPK	R	A	95.00%	2.47	0.266	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	KPSGSPDLWK	R	L	95.00%	2.8	0.293	0	1	0	0	2	1,194.56	441	450	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.76	0.345	0	1	2	0	2	1,890.91	441	456	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	5.4	0.466	0	0	2	0	2	2,526.21	280	301	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	KTSPASLDFPESQK	R	S	95.00%	3.66	0.461	0	1	1	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.86	0.546	0	1	2	0	2	2,314.11	199	219	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	SPAGSPELR	R	K	87.50%	1.76	0.224	0	1	0	0	2	993.4402	432	440	TRUE	
SNU216LR_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	12	15	18	0.11%	17.40%	TAPTLSPEHWK	K	A	95.00%	2.69	0.289	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC2_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	3	3	3	0.02%	3.54%	SPDEATAADQESEDDLSASR	K	T	95.00%	6.07	0.571	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC2_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	3	3	3	0.02%	3.54%	SSSPAPEFLASSPPDNK	K	S	95.00%	2.89	0.375	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216LR_PC2_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	3	3	3	0.02%	3.54%	SSSPAPEFLASSPPDNKSPDEATAADQESED	K	T	95.00%	6.91	0.0764	0	0	1	0	2	3,885.65	861	897	TRUE	
SNU216LR_PC2_01	Condensin complex subunit 3	IPI00106495	114,338.40	100.00%	2	2	2	0.01%	1.38%	LNLAQFLNEDLS	K	-	95.00%	3.4	0.327	0	1	0	0	2	1,456.67	1004	1015	TRUE	
SNU216LR_PC2_01	Condensin complex subunit 3	IPI00106495	114,338.40	100.00%	2	2	2	0.01%	1.38%	SKLNLAQFLNEDLS	K	-	95.00%	2.6	0.201	0	1	0	0	2	1,671.80	1002	1015	TRUE	
SNU216LR_PC2_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	98.80%	1	1	1	0.01%	1.56%	SASPSTQQEKHPTHHER	R	G	95.00%	2.7	0.359	0	0	0	1	2	2,036.89	220	236	TRUE	
SNU216LR_PC2_01	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	3	3	0.02%	3.86%	DGEQSPNVSLMQR	R	M	95.00%	2.4	0.295	0	1	0	0	2	1,540.65	332	344	TRUE	
SNU216LR_PC2_01	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	3	3	0.02%	3.86%	DSALQDTDDSDDDPVLIPGAR	R	Y	95.00%	4.79	0.471	0	1	1	0	2	2,374.93	668	688	TRUE	
SNU216LR_PC2_01	Centromere protein C 1	IPI00304885	106,928.30	100.00%	3	3	4	0.02%	3.71%	ILATDVSSKNTPDSKK	K	I	95.00%	2.55	0.209	0	0	1	0	2	1,783.88	120	135	TRUE	
SNU216LR_PC2_01	Centromere protein C 1	IPI00304885	106,928.30	100.00%	3	3	4	0.02%	3.71%	NDVDDEEVHGSSDDSK	K	Q	95.00%	2.98	0.485	0	2	0	0	2	1,907.62	699	714	TRUE	
SNU216LR_PC2_01	Centromere protein C 1	IPI00304885	106,928.30	100.00%	3	3	4	0.02%	3.71%	NDVDDEEVHGSSDDSKQSK	K	V	95.00%	2.6	0.433	0	1	0	0	2	2,330.77	699	717	TRUE	
SNU216LR_PC2_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	4.00%	RDSLTGSSDLYKR	R	T	95.00%	4.52	0.481	0	0	1	0	2	1,577.73	708	720	TRUE	
SNU216LR_PC2_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	4.00%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.53	0.338	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216LR_PC2_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	4.00%	SMDELNHDFQALALEGR	R	A	90.90%	2.25	0.276	0	1	0	0	2	2,025.87	124	140	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	APESDTGDEDQDQER	R	D	95.00%	3.15	0.577	0	3	0	0	2	1,771.63	575	589	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	DEDGESGGQRSEAEEGEVR	R	T	95.00%	2.8	0.188	0	1	0	0	2	2,115.81	456	474	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	DKSDSDTEGLLFSR	R	D	95.00%	2.29	0.31	0	2	1	0	2	1,649.71	646	659	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	GAPSQDDESGGIEDSPDR	K	G	95.00%	4.1	0.373	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	SDSDTEGLLFSR	K	D	86.90%	2.13	0.174	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	SEAEEGEVRTPTK	R	I	95.00%	2.78	0.148	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.46	0.234	0	0	1	0	2	2,794.21	430	455	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.69	0.329	0	0	2	0	2	2,540.10	639	659	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	SLSPIIGK	R	D	90.00%	1.79	0.111	1	0	0	0	2	894.4698	782	789	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	10	11	15	0.09%	15.30%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	R	T	89.30%	5.47	0.0332	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	13	0.08%	5.15%	DKEVSDDEAEEK	R	E	95.00%	3.18	0.321	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	13	0.08%	5.15%	DKEVSDDEAEEKEDK	R	E	95.00%	4.41	0.358	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	13	0.08%	5.15%	EEKESEDKPEIEDVGSDEEEEK	K	K	95.00%	5.79	0.297	0	0	1	0	2	2,659.07	370	391	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	13	0.08%	5.15%	ERDKEVSDDEAEEK	K	E	95.00%	2.81	0.191	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	13	0.08%	5.15%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.48	0.437	0	2	1	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	13	0.08%	5.15%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.95	0.43	0	1	2	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	13	0.08%	5.15%	EVSDDEAEEKEDKEEEK	K	E	95.00%	3.48	0.264	0	0	1	0	2	2,117.83	351	367	TRUE	
SNU216LR_PC2_01	Ribosomal protein S6 kinase alpha-3	IPI00020898	83,738.50	99.50%	2	2	2	0.01%	5.54%	GFSFVAITSDDESQAMQTVGVHSIVQQLHF	R	N	95.00%	4.74	0.287	0	0	1	0	2	3,367.58	384	413	TRUE	
SNU216LR_PC2_01	Ribosomal protein S6 kinase alpha-3	IPI00020898	83,738.50	99.50%	2	2	2	0.01%	5.54%	NQSPVLEPVGR	R	S	89.10%	1.77	0.261	0	1	0	0	2	1,275.61	713	723	TRUE	
SNU216LR_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	DLGHPVEEEDELESGDQEDEDDSESEDPGK	K	D	95.00%	5.08	0.533	0	0	1	0	2	3,323.24	929	957	TRUE	
SNU216LR_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	DLGHPVEEEDELESGDQEDEDDSESEDPGKD	K	-	95.00%	6.25	0.571	0	0	1	1	2	3,916.52	929	962	TRUE	
SNU216LR_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	LKDLGHPVEEEDELESGDQEDEDDSESEDPG	K	D	95.00%	6.86	0.511	0	0	1	0	2	3,564.42	927	957	TRUE	
SNU216LR_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	LKDLGHPVEEEDELESGDQEDEDDSESEDPG	K	-	95.00%	8.07	0.604	0	0	1	1	2	4,157.70	927	962	TRUE	
SNU216LR_PC2_01	Ribosome biogenesis protein BOP1	IPI00028955	83,629.30	98.90%	1	1	1	0.01%	2.14%	IGDEYAEDSSDEEDIR	R	N	95.00%	3.48	0.589	0	1	0	0	2	2,002.68	118	133	TRUE	
SNU216LR_PC2_01	RAB GTPase activating protein 1-like isoform A	IPI00396010,IPI00418300,IP	92,422.50	99.80%	2	2	2	0.01%	7.12%	ESDKEEPVTPTSGGGPMSPQDDEAEEESDN	R	D	95.00%	7.41	0.112	0	0	1	0	2	4,303.74	463	503	TRUE	
SNU216LR_PC2_01	RAB GTPase activating protein 1-like isoform A	IPI00396010,IPI00418300,IP	92,422.50	99.80%	2	2	2	0.01%	7.12%	PSSPGGLPEEDSVLFNK	R	L	95.00%	3.72	0.381	0	1	0	0	2	1,852.84	117	133	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	5.35	0.516	0	0	1	0	2	2,434.09	531	554	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	3.31	0.21	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	GAEETSWSGEER	K	A	79.80%	2.13	0.19	0	1	0	0	2	1,417.53	958	969	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	GPSPAPASSPK	R	R	95.00%	2.05	0.352	0	1	0	0	2	1,075.48	717	727	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	GPSPAPASSPKR	R	E	95.00%	2.49	0.24	0	2	0	0	2	1,311.55	717	728	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.5	0.408	0	0	1	1	2	2,048.01	496	516	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	QRSPSPAPAPAPAAAAGPPTRK	R	K	95.00%	3.89	0.391	0	0	1	0	2	2,256.07	496	517	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	SASPPPATSSSSSSR	R	R	95.00%	2.03	0.286	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216LR_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	11	0.07%	8.92%	SPFLKPDER	R	A	89.00%	1.85	0.271	0	1	0	0	2	1,168.54	874	882	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	DEPAESPSETPGPR	R	P	95.00%	2.45	0.303	0	1	0	0	2	1,548.62	592	605	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	DEPAESPSETPGPRPAGPAGDEPAESPSETP	R	P	95.00%	4.84	0.502	0	0	1	0	2	3,448.48	592	625	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	EGTPGSPSETPGPSPAGPAGDEPAESPSETP	K	P	85.20%	5.56	0.0208	0	0	1	0	2	3,279.40	512	545	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	KVDEGAGDSAAVASGGAQTLALAGSPAPS	R	A	95.00%	7.71	0.618	0	0	1	0	2	3,054.45	460	492	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.96	0.448	0	1	2	0	2	2,204.91	309	328	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	RKVDEGAGDSAAVASGGAQTLALAGSPAP	R	A	95.00%	5.28	0.34	0	0	0	1	2	3,210.55	459	492	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.82	0.487	0	0	1	0	2	2,142.91	361	380	TRUE	
SNU216LR_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	9	10	0.06%	22.70%	SVEPQDAGPLER	R	S	95.00%	2.95	0.307	0	1	0	0	2	1,377.60	349	360	TRUE	
SNU216LR_PC2_01	Ubiquitin-like 1-activating enzyme E1B	IPI00023234	71,225.20	100.00%	1	1	1	0.01%	5.47%	YLFNQLFGEEDADQEVSPDRADPEAAWEPT	K	A	95.00%	4.49	0.385	0	0	1	0	2	4,075.75	191	225	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	12	16	0.10%	15.90%	EEELEETGNQHNDVEIEEAGEEEEKEIAIVHS	R	E	81.50%	3.93	0.137	0	0	0	1	2	4,187.79	316	351	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	12	16	0.10%	15.90%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	7.44	0.608	0	0	1	2	2	3,065.37	341	365	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	12	16	0.10%	15.90%	ESEKQQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.33	0.463	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	12	16	0.10%	15.90%	QESDPEDDDVK	R	K	95.00%	3.58	0.53	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	12	16	0.10%	15.90%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.64	0.544	0	1	2	1	2	2,653.22	98	121	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	12	16	0.10%	15.90%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.78	0.476	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	12	16	0.10%	15.90%	SLSPGKENVSALDMEK	K	E	95.00%	3.8	0.485	0	2	2	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC2_01	Isoform 2 of HMG box transcription factor BBX	IPI00183699,IPI00300222,IP	101,757.30	99.80%	2	2	2	0.01%	5.27%	QSSESDIESVIYTIEAVAK	R	G	95.00%	3.7	0.5	0	1	0	0	2	2,148.99	479	497	TRUE	
SNU216LR_PC2_01	Isoform 2 of HMG box transcription factor BBX	IPI00183699,IPI00300222,IP	101,757.30	99.80%	2	2	2	0.01%	5.27%	SSTPEMPAVSAFFSLAALAEVAAMENVHR	R	G	95.00%	4.66	0.504	0	0	1	0	2	3,113.45	857	885	TRUE	
SNU216LR_PC2_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	4	4	4	0.02%	2.60%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	4.21	0.335	0	0	1	0	2	2,461.21	1678	1699	TRUE	
SNU216LR_PC2_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	4	4	4	0.02%	2.60%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.21	0.291	0	0	1	0	2	3,457.49	2117	2144	TRUE	
SNU216LR_PC2_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	4	4	4	0.02%	2.60%	ESDQTLAALLSPK	K	E	95.00%	2.27	0.266	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216LR_PC2_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	4	4	4	0.02%	2.60%	SAASPVVSSMPER	R	A	95.00%	2.72	0.408	0	1	0	0	2	1,397.61	1766	1778	TRUE	
SNU216LR_PC2_01	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	3	4	4	0.02%	4.82%	HELSPPQKR	R	M	95.00%	1.85	0.322	0	1	0	0	2	1,171.56	71	79	TRUE	
SNU216LR_PC2_01	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	3	4	4	0.02%	4.82%	LIHTLDDRTQLWASEPGTPPLPTSLPSQNPIL	K	N	95.00%	4.92	0.132	0	0	0	1	2	3,715.91	527	559	TRUE	
SNU216LR_PC2_01	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	3	4	4	0.02%	4.82%	TQLWASEPGTPPLPTSLPSQNPILK	R	N	95.00%	4.66	0.137	0	1	1	0	2	2,752.40	535	559	TRUE	
SNU216LR_PC2_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.10%	2	2	2	0.01%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	3.99	0.347	0	0	1	0	2	2,577.16	2398	2420	TRUE	
SNU216LR_PC2_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.10%	2	2	2	0.01%	1.53%	LVSFHDDSDEDLLHI	K	-	81.60%	2.04	0.19	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216LR_PC2_01	AXL receptor tyrosine kinase isoform 1	IPI00296992,IPI00397361	97,376.30	98.60%	1	1	1	0.01%	1.57%	ESFPAPVVILPFMK	R	H	95.00%	2.66	0.437	0	1	0	0	2	1,654.83	602	615	TRUE	
SNU216LR_PC2_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	4.28	0.153	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216LR_PC2_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	R	L	95.00%	5.34	0.501	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216LR_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	6	6	0.04%	7.70%	DKASPEPEKDFSEK	K	A	95.00%	2.71	0.207	0	0	1	0	2	1,686.73	684	697	TRUE	
SNU216LR_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	6	6	0.04%	7.70%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	2.9	0.337	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	6	6	0.04%	7.70%	LNFDMTASPK	K	I	95.00%	2.41	0.267	0	1	0	0	2	1,203.51	418	427	TRUE	
SNU216LR_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	6	6	0.04%	7.70%	RISLSDMPR	R	S	95.00%	2.17	0.292	0	1	0	0	2	1,154.54	442	450	TRUE	
SNU216LR_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	6	6	0.04%	7.70%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	2.69	0.22	0	0	1	0	2	2,493.98	451	472	TRUE	
SNU216LR_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	6	6	0.04%	7.70%	TPPSTTVGSHSPPETPVLTR	K	S	95.00%	3.4	0.341	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216LR_PC2_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	4	6	0.04%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.25	0.539	0	1	3	1	2	2,873.37	59	85	TRUE	
SNU216LR_PC2_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	4	6	0.04%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	89.90%	3.74	0.0163	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC2_01	WW domain-binding protein 11	IPI00170786	69,999.90	100.00%	3	3	3	0.02%	7.33%	DEDMLYSPELAQR	R	G	95.00%	3.13	0.386	0	1	0	0	2	1,646.68	231	243	TRUE	
SNU216LR_PC2_01	WW domain-binding protein 11	IPI00170786	69,999.90	100.00%	3	3	3	0.02%	7.33%	MAGQEIPEEGREVEEFSEDDDEDDSDDSEA	R	Q	95.00%	3.52	0.368	0	0	1	0	2	3,791.35	337	368	TRUE	
SNU216LR_PC2_01	WW domain-binding protein 11	IPI00170786	69,999.90	100.00%	3	3	3	0.02%	7.33%	RRDEDMLYSPELAQR	R	G	95.00%	2.8	0.312	0	1	0	0	2	1,958.88	229	243	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	8	9	0.06%	8.84%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.52	0.396	0	0	1	0	2	3,454.32	11	39	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	8	9	0.06%	8.84%	EVIDASDKEGMSPAK	K	R	95.00%	3.3	0.285	0	2	0	0	2	1,656.72	82	96	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	8	9	0.06%	8.84%	KKSPIINESR	R	S	95.00%	2.38	0.415	0	1	1	0	2	1,251.65	275	284	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	8	9	0.06%	8.84%	SINEENGEVSEDQSQNK	K	H	95.00%	2.66	0.316	0	1	0	0	2	1,986.79	23	39	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	8	9	0.06%	8.84%	SPSPDDILER	R	V	95.00%	1.91	0.263	0	1	0	0	2	1,208.52	578	587	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	6	8	9	0.06%	8.84%	VQSGMGLILQGYESGSEEEGEIHEK	K	A	95.00%	3.46	0.325	0	1	1	0	2	2,866.19	129	153	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	2	2	2	0.01%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.65	0.342	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC2_01	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	2	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.13	0.356	0	0	0	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC2_01	ribosomal protein S6 kinase, 90kDa, polypeptide 1	IPI00017305,IPI00477982,IP	65,055.30	100.00%	1	1	1	0.01%	2.55%	TPKDSPGIPPSAGAHQLFR	R	G	95.00%	3.44	0.241	0	0	1	0	2	2,056.00	202	220	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	ASVLDTSMSAGSGSPSK	R	T	95.00%	3.2	0.248	0	1	0	0	2	1,661.71	498	514	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	SPEPEATLTFPFLDK	K	M	95.00%	3.81	0.461	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	3.55	0.322	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216LR_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	AGKEPAKPSPSR	K	D	95.00%	3.39	0.355	0	0	1	0	2	1,304.64	636	647	TRUE	
SNU216LR_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	RTEGYAAFQEDSSGDEAESPSK	K	M	95.00%	3.17	0.223	0	0	1	0	2	2,520.94	80	101	TRUE	
SNU216LR_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TEGYAAFQEDSSGDEAESPSK	R	M	95.00%	3.68	0.335	0	1	0	0	2	2,364.84	81	101	TRUE	
SNU216LR_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TGEPSPPHDILHEPPDVVSDDEKDHGK	R	K	95.00%	4.29	0.363	0	0	0	1	2	3,107.30	43	69	TRUE	
SNU216LR_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TPSSEEISPTK	R	F	95.00%	2.3	0.4	0	1	0	0	2	1,255.55	26	36	TRUE	
SNU216LR_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TPSSEEISPTKFPGLYR	R	T	95.00%	2.36	0.228	0	1	0	0	2	1,988.94	26	42	TRUE	
SNU216LR_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	8	14	0.09%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	5.88	0.504	0	0	3	0	2	3,291.30	348	375	TRUE	
SNU216LR_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	8	14	0.09%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHKR	K	T	95.00%	5.73	0.521	0	0	2	1	2	3,447.40	348	376	TRUE	
SNU216LR_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	8	14	0.09%	12.40%	MLAESDESGDEESVSQTDK	K	T	95.00%	3.5	0.41	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216LR_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	8	14	0.09%	12.40%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.58	0.505	0	0	4	0	2	3,188.29	186	212	TRUE	
SNU216LR_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	8	14	0.09%	12.40%	SLSELESLKLPAESNEK	R	I	95.00%	2.97	0.427	0	1	1	0	2	1,953.94	238	254	TRUE	
SNU216LR_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	8	14	0.09%	12.40%	TGSNISGASSDISLDEQYKHQLEETKK	R	E	95.00%	3.68	0.143	0	0	0	1	2	3,045.41	377	403	TRUE	
SNU216LR_PC2_01	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	1	1	1	0.01%	2.75%	KVNVTVDYIRPASPATETVPAFSER	K	T	95.00%	5	0.112	0	0	1	0	2	2,827.40	414	438	TRUE	
SNU216LR_PC2_01	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.90%	2	2	2	0.01%	4.64%	SMPSMGYMTHTVSAPSLHGK	R	S	95.00%	2.67	0.265	0	0	1	0	2	2,198.94	631	650	TRUE	
SNU216LR_PC2_01	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.90%	2	2	2	0.01%	4.64%	TVPLFPHPPVPSLSTSESKPPPQPSPPTSPVR	K	T	95.00%	4.85	0.452	0	0	0	1	2	3,517.72	843	874	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	3	3	3	0.02%	27.20%	GHTASESDEQQWPEEK	R	R	95.00%	2.55	0.298	0	0	1	0	2	1,937.76	23	38	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	3	3	3	0.02%	27.20%	GHTASESDEQQWPEEKR	R	L	95.00%	3.64	0.397	0	0	1	0	2	2,093.86	23	39	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	3	3	3	0.02%	27.20%	RLKEDILENEDEQNSPPK	K	K	95.00%	3.59	0.252	0	0	1	0	2	2,234.03	39	56	TRUE	
SNU216LR_PC2_01	Histone deacetylase 2	IPI00289601	55,365.50	99.80%	1	2	4	0.02%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	6.6	0.502	0	0	1	3	2	3,665.55	373	405	TRUE	
SNU216LR_PC2_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	3	4	6	0.04%	6.05%	DQKEEGNDYDTR	R	S	95.00%	2.58	0.176	0	1	0	0	2	1,549.58	256	267	TRUE	
SNU216LR_PC2_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	3	4	6	0.04%	6.05%	GISPIVFDR	R	S	89.70%	1.69	0.249	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216LR_PC2_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	3	4	6	0.04%	6.05%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.31	0.476	0	0	2	2	2	2,481.14	415	437	TRUE	
SNU216LR_PC2_01	Isoform Beta of Striatin-3	IPI00011461	87,661.80	100.00%	2	2	3	0.02%	5.87%	NLEQILNGGESPK	K	Q	95.00%	3.19	0.375	0	1	0	0	2	1,478.69	219	231	TRUE	
SNU216LR_PC2_01	Isoform Beta of Striatin-3	IPI00011461	87,661.80	100.00%	2	2	3	0.02%	5.87%	SSGDVLETFNFLENADDSDEDEENDMIEGI	R	D	95.00%	4.82	0.565	0	0	2	0	2	3,840.55	240	273	TRUE	
SNU216LR_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.02%	8.82%	QRSPIALPVKQEPPQIDAVK	R	R	95.00%	4.81	0.402	0	0	1	0	2	2,294.23	209	228	TRUE	
SNU216LR_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.02%	8.82%	SKFDSDEEEEDTENVEAASSGK	R	V	95.00%	6.77	0.651	0	1	1	0	2	2,482.96	286	307	TRUE	
SNU216LR_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.02%	8.82%	SPSPVPQEEHSDPEMTEEEKEYQMMLLTK	R	M	95.00%	4.67	0.463	0	0	1	0	2	3,659.43	311	339	TRUE	
SNU216LR_PC2_01	Isoform 1 of Anaphase-promoting complex subur	IPI00002549,IPI00375832,IP	48,934.50	99.50%	2	2	2	0.01%	6.08%	RRSSDIISLLVSIYGSK	K	D	95.00%	5.15	0.404	0	0	1	0	2	1,974.04	270	286	TRUE	
SNU216LR_PC2_01	Isoform 1 of Anaphase-promoting complex subur	IPI00002549,IPI00375832,IP	48,934.50	99.50%	2	2	2	0.01%	6.08%	TDPASLETGQDSEDDSGEPEDWVPDPVDA	K	S	89.00%	4.59	0.0668	0	0	1	0	2	3,550.42	233	265	TRUE	
SNU216LR_PC2_01	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	100.00%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	6.18	0.0337	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216LR_PC2_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.80%	2	2	3	0.02%	3.57%	IIYDSDSESEETLQVK	R	N	95.00%	3.98	0.0565	0	1	0	0	2	1,935.85	65	80	TRUE	
SNU216LR_PC2_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.80%	2	2	3	0.02%	3.57%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	4.79	0.111	0	0	2	0	2	2,798.45	152	176	TRUE	
SNU216LR_PC2_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQK	K	G	95.00%	2.51	0.278	0	0	1	0	2	1,473.75	596	608	TRUE	
SNU216LR_PC2_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	3.84	0.602	0	0	1	0	2	3,011.63	596	623	TRUE	
SNU216LR_PC2_01	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.80%	2	3	3	0.02%	2.56%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.75	0.488	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216LR_PC2_01	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.80%	2	3	3	0.02%	2.56%	SGAASMPSSPK	R	Q	95.00%	2.27	0.312	0	1	0	0	2	1,099.45	223	233	TRUE	
SNU216LR_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	5	5	0.03%	5.27%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.47	0.454	0	0	1	0	2	2,816.12	796	819	TRUE	
SNU216LR_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	5	5	0.03%	5.27%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	4.42	0.477	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216LR_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	5	5	0.03%	5.27%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.46	0.127	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216LR_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	5	5	0.03%	5.27%	SPPEGDTTLFLSR	R	L	95.00%	2.58	0.395	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216LR_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	5	5	0.03%	5.27%	TASPLEHILQTLFGK	K	K	95.00%	3.15	0.386	0	1	0	0	2	1,734.88	1310	1324	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	7.34	0.402	0	0	2	1	2	3,353.45	35	69	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	7.59	0.483	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	QTELFAHFIQPAACQKTPTSPLK	K	M	95.00%	3.59	0.246	0	0	1	0	2	2,613.25	98	119	TRUE	
SNU216LR_PC2_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.80%	1	2	2	0.01%	2.02%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.53	0.191	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC2_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	3	3	0.02%	3.35%	RPNEDSDEDEEK	K	G	95.00%	1.77	0.326	0	1	0	0	2	1,542.56	686	697	TRUE	
SNU216LR_PC2_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	3	3	0.02%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	4.59	0.424	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216LR_PC2_01	nuclear factor kappa-B, subunit 1	IPI00292537	105,429.60	99.80%	2	2	2	0.01%	3.61%	QMGYTEAIEVIQAASSPVK	R	T	95.00%	3.93	0.285	0	0	1	0	2	2,101.99	879	897	TRUE	
SNU216LR_PC2_01	nuclear factor kappa-B, subunit 1	IPI00292537	105,429.60	99.80%	2	2	2	0.01%	3.61%	TTSQAHSLPLSPASTR	K	Q	95.00%	3.16	0.186	0	0	1	0	2	1,733.82	898	913	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	3	4	4	0.02%	4.66%	AASPPASASDLIEQQQK	R	R	95.00%	3.47	0.507	0	1	1	0	2	1,820.84	333	349	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	3	4	4	0.02%	4.66%	AASPPASASDLIEQQQKR	R	G	95.00%	4.37	0.513	0	0	1	0	2	1,976.94	333	350	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	3	4	4	0.02%	4.66%	KDSEGYSESPDLEFEYADTDK	K	W	95.00%	3.44	0.323	0	0	1	0	2	2,504.99	57	77	TRUE	
SNU216LR_PC2_01	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	1	1	1	0.01%	1.97%	PIRPGQHPAASPTHPSAIR	K	G	95.00%	3.47	0.45	0	0	0	1	2	2,070.04	923	941	TRUE	
SNU216LR_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.51%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	3.19	0.269	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216LR_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.51%	GPHHLDNSSPGPGSEAR	R	G	95.00%	2.86	0.244	0	0	1	0	2	1,794.76	383	399	TRUE	
SNU216LR_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.51%	GPPQSPVFEGVYNNSR	K	M	95.00%	3.03	0.488	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.51%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.71	0.33	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216LR_PC2_01	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	99.80%	2	3	3	0.02%	2.97%	ESSIIAPAPAEDVDTPPR	K	K	95.00%	3.59	0.339	0	1	1	0	2	1,944.90	434	451	TRUE	
SNU216LR_PC2_01	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	99.80%	2	3	3	0.02%	2.97%	VKESSIIAPAPAEDVDTPPRK	R	K	95.00%	3.91	0.386	0	0	1	0	2	2,300.15	432	452	TRUE	
SNU216LR_PC2_01	Lamin-B1	IPI00217975	66,278.40	100.00%	2	2	3	0.02%	7.18%	AGGPTTPLSPTR	R	L	95.00%	2.34	0.317	0	2	0	0	2	1,234.58	14	25	TRUE	
SNU216LR_PC2_01	Lamin-B1	IPI00217975	66,278.40	100.00%	2	2	3	0.02%	7.18%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	4.79	0.387	0	0	1	0	2	3,491.54	547	576	TRUE	
SNU216LR_PC2_01	Isoform 1 of Serine/threonine-protein kinase MAF	IPI00555838,IPI00556171,IP	80,649.10	100.00%	2	2	2	0.01%	3.68%	SRNSPLLER	R	A	86.30%	2.08	0.172	0	1	0	0	2	1,151.56	483	491	TRUE	
SNU216LR_PC2_01	Isoform 1 of Serine/threonine-protein kinase MAF	IPI00555838,IPI00556171,IP	80,649.10	100.00%	2	2	2	0.01%	3.68%	VPVASPSAHNISSSGGAPDR	R	T	95.00%	3.69	0.442	0	0	1	0	2	1,985.91	511	530	TRUE	
SNU216LR_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	5.64%	ESKGSPVFLPR	K	K	89.90%	1.92	0.246	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216LR_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	5.64%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	3.95	0.424	0	0	1	0	2	2,891.35	664	689	TRUE	
SNU216LR_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	5.64%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.71	0.388	0	0	1	0	2	2,380.14	381	401	TRUE	
SNU216LR_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	5.64%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	4.39	0.572	0	0	2	0	2	2,673.28	1068	1093	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	5.64%	NSSPAPPQPAPGK	K	V	95.00%	2.55	0.423	0	1	0	0	2	1,327.60	1081	1093	TRUE	
SNU216LR_PC2_01	Lupus La protein	IPI00009032	46,839.00	99.80%	2	3	3	0.02%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.14	0.433	0	0	1	1	2	2,405.96	364	384	TRUE	
SNU216LR_PC2_01	Lupus La protein	IPI00009032	46,839.00	99.80%	2	3	3	0.02%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.76	0.392	0	0	0	1	2	2,635.11	362	384	TRUE	
SNU216LR_PC2_01	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.70%	2	2	2	0.01%	4.99%	EDVEVAESPLR	R	V	95.00%	2.92	0.307	0	1	0	0	2	1,323.58	510	520	TRUE	
SNU216LR_PC2_01	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.70%	2	2	2	0.01%	4.99%	NQSPTEAEKPASSSLPSSPPPQLLTR	K	N	94.60%	3.15	0.157	0	0	1	0	2	2,799.36	33	58	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	100.00%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	V	95.00%	3.01	0.462	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	100.00%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.83	0.411	0	0	1	0	2	3,054.38	478	503	TRUE	
SNU216LR_PC2_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	3.21%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.07	0.357	0	0	1	0	2	3,017.35	1574	1599	TRUE	
SNU216LR_PC2_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	3.21%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	3.48	0.455	0	0	1	0	2	2,875.18	1457	1482	TRUE	
SNU216LR_PC2_01	Importin beta-3	IPI00329200	126,524.70	100.00%	1	2	2	0.01%	3.47%	TASIKPEVALLDTQDMENMSDDDGWEFVN	K	T	95.00%	5.05	0.433	0	0	1	1	2	4,423.96	651	689	TRUE	
SNU216LR_PC2_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	5.29%	ALMDEEDMDDVVDADEYLIPQQGFFSSPST	R	T	91.90%	6.2	0.0165	0	0	1	0	2	3,687.54	1000	1031	TRUE	
SNU216LR_PC2_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	5.29%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.11	0.456	0	1	1	0	2	2,114.05	687	705	TRUE	
SNU216LR_PC2_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	5.29%	MHLPSPTDSNFYR	R	A	95.00%	2.39	0.46	0	1	0	0	2	1,644.69	987	999	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	3.81	0.492	0	1	1	0	2	2,319.95	172	193	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHK	R	K	95.00%	5.57	0.443	0	0	1	0	2	2,991.38	621	648	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHKKP	R	R	95.00%	4.98	0.387	0	0	0	1	2	3,720.74	621	654	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	YVDEENSDGETSNHR	K	L	95.00%	3.16	0.533	0	1	1	0	2	1,831.68	136	150	TRUE	
SNU216LR_PC2_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	3	3	0.02%	4.68%	GDSLKEPTSIAESSR	R	H	95.00%	2.61	0.344	0	1	1	0	2	1,656.75	325	339	TRUE	
SNU216LR_PC2_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	3	3	0.02%	4.68%	GVGSPEPGPTAPYLGR	R	S	95.00%	3.06	0.191	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216LR_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	8	0.05%	8.81%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	3.28	0.338	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216LR_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	8	0.05%	8.81%	EKEEPPSPIEATPPQSLLEK	R	V	95.00%	3.17	0.223	0	0	1	0	2	2,299.11	468	487	TRUE	
SNU216LR_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	8	0.05%	8.81%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.38	0.391	0	0	1	0	2	2,015.97	536	553	TRUE	
SNU216LR_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	8	0.05%	8.81%	KGSDDAPYSPTAR	R	V	95.00%	2.66	0.28	0	2	0	0	2	1,444.61	897	909	TRUE	
SNU216LR_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	8	0.05%	8.81%	LEKSPLAGNKDNK	K	F	95.00%	2.41	0.247	0	1	1	0	2	1,493.74	622	634	TRUE	
SNU216LR_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	8	0.05%	8.81%	RPSASSPNNNTAAK	R	G	95.00%	3	0.466	0	1	0	0	2	1,494.67	1059	1072	TRUE	
SNU216LR_PC2_01	Formin binding protein 4	IPI00170778	110,063.40	99.80%	2	3	5	0.03%	3.15%	ALEEGDGSVSGSSPR	R	S	95.00%	3.95	0.42	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216LR_PC2_01	Formin binding protein 4	IPI00170778	110,063.40	99.80%	2	3	5	0.03%	3.15%	IDENSDKEMEVEESPEK	K	I	95.00%	4.43	0.399	0	2	2	0	2	2,087.84	493	509	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 2	IPI00015973	112,587.80	99.90%	2	2	2	0.01%	4.88%	EVAENQQNQSSDPEEEKGSQPPPAAESQS	K	R	95.00%	4.37	0.428	0	0	1	0	2	3,533.53	29	60	TRUE	
SNU216LR_PC2_01	Band 4.1-like protein 2	IPI00015973	112,587.80	99.90%	2	2	2	0.01%	4.88%	EVRSPTKAPHLQLIEGK	R	K	95.00%	2.8	0.355	0	0	0	1	2	1,983.04	595	611	TRUE	
SNU216LR_PC2_01	PREDICTED: U2-associated SR140 protein	IPI00143753	124,030.30	99.80%	1	1	1	0.01%	1.11%	LYSILQGDSPTK	K	W	95.00%	2.94	0.236	0	1	0	0	2	1,401.67	533	544	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp547K059	IPI00384529	85,826.40	99.80%	2	2	2	0.01%	3.74%	GPPSTPVPTQTQNPESR	R	L	95.00%	2.97	0.255	0	0	1	0	2	1,952.82	332	348	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp547K059	IPI00384529	85,826.40	99.80%	2	2	2	0.01%	3.74%	LQADPKPISPQQK	R	S	95.00%	2.84	0.356	0	1	0	0	2	1,529.77	349	361	TRUE	
SNU216LR_PC2_01	CDNA FLJ12346 fis, clone MAMMA1002297, highl	IPI00386898	28,711.90	99.80%	2	2	2	0.01%	7.55%	QGDETPSTNNGSDDEK	R	T	95.00%	2.55	0.403	0	1	0	0	2	1,773.65	31	46	TRUE	
SNU216LR_PC2_01	CDNA FLJ12346 fis, clone MAMMA1002297, highl	IPI00386898	28,711.90	99.80%	2	2	2	0.01%	7.55%	QGDETPSTNNGSDDEKTGLK	R	I	95.00%	3.15	0.157	0	1	0	0	2	2,172.89	31	50	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	3	4	4	0.02%	1.28%	NSSTPGLQVPVSPTVPIQNQK	R	Y	95.00%	3.24	0.25	0	0	1	0	2	2,271.14	3025	3045	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	3	4	4	0.02%	1.28%	SASPSVPGPTKPKPK	R	T	95.00%	3.19	0.373	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	3	4	4	0.02%	1.28%	TIAHSPTSFTESSSK	R	E	95.00%	3.19	0.413	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	2	3	4	0.02%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	2.46	0.221	0	2	1	0	2	1,764.73	414	426	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	2	3	4	0.02%	2.38%	SQSIEQESQEK	R	Q	95.00%	2.21	0.35	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216LR_PC2_01	ligase III, DNA, ATP-dependent isoform alpha pre	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	4	4	0.02%	4.46%	FSGFSAKPNNSGEAPSSPTPK	K	R	95.00%	3.57	0.394	0	0	1	0	2	2,186.98	139	159	TRUE	
SNU216LR_PC2_01	ligase III, DNA, ATP-dependent isoform alpha pre	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	4	4	0.02%	4.46%	KFSGFSAKPNNSGEAPSSPTPK	R	R	95.00%	4.07	0.398	0	0	1	0	2	2,315.07	138	159	TRUE	
SNU216LR_PC2_01	ligase III, DNA, ATP-dependent isoform alpha pre	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	4	4	0.02%	4.46%	LTTTGQVTSPVK	K	G	95.00%	2.64	0.32	0	1	0	0	2	1,311.66	115	126	TRUE	
SNU216LR_PC2_01	ligase III, DNA, ATP-dependent isoform alpha pre	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	4	4	0.02%	4.46%	LTTTGQVTSPVKGASFVTSTNPR	K	K	95.00%	3.27	0.318	0	0	1	0	2	2,429.21	115	137	TRUE	
SNU216LR_PC2_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.02%	9.30%	DYDEEEQGYDSEKEK	R	K	95.00%	2.95	0.273	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC2_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.02%	9.30%	DYDEEEQGYDSEKEKK	R	E	95.00%	2.7	0.313	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216LR_PC2_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.02%	9.30%	LNHVAAGLVSPSLK	K	S	95.00%	2.7	0.394	0	1	0	0	2	1,485.78	138	151	TRUE	
SNU216LR_PC2_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.02%	9.30%	VNGDDHHEEDMDMSD	K	-	95.00%	2.64	0.496	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	AASPSPQSVR	K	R	95.00%	1.82	0.338	0	2	0	0	2	1,079.49	745	754	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	HRPSPPATPPPK	R	T	95.00%	2.96	0.401	0	2	1	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	KAASPSPQSVR	K	R	95.00%	2.24	0.306	0	1	0	0	2	1,287.55	744	754	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	KEKTPELPEPSVK	K	V	95.00%	3.75	0.395	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	KETESEAEDNLDDLEK	K	H	95.00%	4.97	0.501	0	3	0	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.7	0.44	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	6.92	0.161	0	0	4	2	2	2,791.42	772	797	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	KVELSESEEDKGGK	R	M	95.00%	3.12	0.263	0	1	1	0	2	1,614.73	454	467	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	RESPSPAPKPR	K	K	95.00%	3.06	0.42	0	1	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	RTASPPPPPK	R	R	95.00%	1.93	0.246	0	1	0	0	2	1,127.56	622	631	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	RTASPPPPPKR	R	R	95.00%	1.92	0.335	0	0	1	0	2	1,283.66	622	632	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	SVSGSPEPAAK	R	K	95.00%	2.46	0.287	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	TASPPPPPK	R	R	95.00%	2.33	0.403	0	1	0	0	2	971.46	623	631	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	TRHSPTPQQSNR	K	T	95.00%	2.48	0.278	0	0	1	0	2	1,488.67	406	417	TRUE	
SNU216LR_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	31	0.19%	16.90%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.49	0.536	0	1	2	1	2	1,977.99	247	263	TRUE	
SNU216LR_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	5	5	0.03%	6.51%	AGAEDDEEKGEGTPR	K	E	95.00%	3.06	0.517	0	1	0	0	2	1,640.64	150	164	TRUE	
SNU216LR_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	5	5	0.03%	6.51%	ASDLEDEESAAR	R	G	95.00%	2.48	0.361	0	1	0	0	2	1,372.53	45	56	TRUE	
SNU216LR_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	5	5	0.03%	6.51%	DSGSDQDLDGAGVRASDLEDEESAAR	R	G	95.00%	3.89	0.328	0	0	1	0	2	2,745.11	31	56	TRUE	
SNU216LR_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	5	5	0.03%	6.51%	GPSQEEEDNHSDEEDR	R	A	95.00%	2.99	0.456	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216LR_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	5	5	0.03%	6.51%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	2.99	0.324	0	0	1	0	2	2,464.94	57	77	TRUE	
SNU216LR_PC2_01	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	2	3	3	0.02%	7.45%	SKPSEPIQPVNTWEISSLPSSTVTSETLPSSLS	R	Y	93.00%	5.95	0.0286	0	0	1	0	2	4,106.01	70	107	TRUE	
SNU216LR_PC2_01	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	2	3	3	0.02%	7.45%	YQDEDTPPQEHISPQITNEVIGPELVHVSEK	R	N	95.00%	4.11	0.387	0	0	1	1	2	3,608.68	110	140	TRUE	
SNU216LR_PC2_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	5	0.03%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	3.88	0.463	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216LR_PC2_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	5	0.03%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	86.90%	3.01	0.0765	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216LR_PC2_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	5	0.03%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.7	0.461	0	1	2	0	2	2,246.87	1059	1079	TRUE	
SNU216LR_PC2_01	Putative rRNA methyltransferase 3	IPI00217686	96,577.50	100.00%	1	1	1	0.01%	2.95%	ALDISLSSGEEDEGDEEDSTAGTTK	K	Q	95.00%	4.6	0.497	0	1	0	0	2	2,716.03	329	353	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.75	0.46	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216LR_PC2_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	5.56	0.531	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216LR_PC2_01	Isoform p135 of Dynactin-1	IPI00219114	127,406.80	99.80%	1	1	1	0.01%	0.87%	MMRQAPTARK	-	T	95.00%	2.5	0.152	0	1	0	0	2	1,301.59	1	10	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	AAGARPLTSPESLSR	K	D	95.00%	2.7	0.373	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	95.00%	3.43	0.263	0	0	0	1	2	2,865.29	88	118	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.3	0.397	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.48	0.505	0	2	1	0	2	1,798.73	964	980	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	4.07	0.395	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216LR_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.35	0.271	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase BAP1	IPI00465087	80,362.70	100.00%	3	3	3	0.02%	6.58%	SASNKSPLVLEANR	K	A	95.00%	2.53	0.204	0	0	1	0	2	1,565.77	287	300	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase BAP1	IPI00465087	80,362.70	100.00%	3	3	3	0.02%	6.58%	SRVPVRPPQQYSDDEDDYEDDEEDDVQNT	R	Y	95.00%	5.9	0.319	0	0	0	1	2	4,076.69	384	417	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase BAP1	IPI00465087	80,362.70	100.00%	3	3	3	0.02%	6.58%	VPVRPPQQYSDDEDDYEDDEEDDVQNTN:	R	Y	95.00%	6.21	0.512	0	0	1	0	2	3,833.56	386	417	TRUE	
SNU216LR_PC2_01	CDNA FLJ36874 fis, clone ASTRO2018169, weakly	IPI00412993	70,640.60	99.80%	2	3	3	0.02%	2.07%	RSTSPIIGSPPVR	R	A	95.00%	2.96	0.228	0	1	1	0	2	1,446.75	33	45	TRUE	
SNU216LR_PC2_01	CDNA FLJ36874 fis, clone ASTRO2018169, weakly	IPI00412993	70,640.60	99.80%	2	3	3	0.02%	2.07%	STSPIIGSPPVR	R	A	95.00%	2.07	0.33	0	1	0	0	2	1,290.65	34	45	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC57703	IPI00177381	105,470.20	98.60%	1	1	1	0.01%	1.43%	RNSFSENEKHTHR	R	I	95.00%	3.36	0.389	0	0	1	0	2	1,721.75	827	839	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	KPSKEMSSDSEYDSDDDR	K	T	80.10%	2.34	0.201	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	KQSFDDNDSEELEDKDSK	K	S	95.00%	4.42	0.359	0	1	0	0	2	2,208.88	105	122	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	KWDGSEEDEDNSKK	K	I	95.00%	2.71	0.302	0	1	0	0	2	1,746.69	160	173	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.35	0.492	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.64	0.383	0	1	1	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	VEMYSGSDDDDDFNK	K	L	95.00%	2.33	0.442	0	2	0	0	2	1,896.59	131	145	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.37	0.34	0	3	3	0	2	2,250.82	131	148	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	WDGSEEDEDNSK	K	K	95.00%	2.22	0.396	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	12	17	0.11%	7.13%	WDGSEEDEDNSKK	K	I	95.00%	2.72	0.456	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC2_01	Mitotic checkpoint serine/threonine-protein kinas	IPI00141933	119,520.10	99.80%	2	2	2	0.01%	2.00%	KLSPIIEDSR	K	E	95.00%	2.4	0.228	0	1	0	0	2	1,237.62	668	677	TRUE	
SNU216LR_PC2_01	Mitotic checkpoint serine/threonine-protein kinas	IPI00141933	119,520.10	99.80%	2	2	2	0.01%	2.00%	KNKSPPADPPR	K	V	95.00%	2.63	0.183	0	0	1	0	2	1,286.63	540	550	TRUE	
SNU216LR_PC2_01	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	99.90%	2	3	3	0.02%	3.80%	GDAASSPAPAASVGSSQGGAR	R	K	95.00%	2.79	0.347	0	1	0	0	2	1,880.81	256	276	TRUE	
SNU216LR_PC2_01	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	99.90%	2	3	3	0.02%	3.80%	VENSPQVDGSPPGLEGLLGGIGEK	R	G	95.00%	4.44	0.511	0	1	1	0	2	2,429.16	1071	1094	TRUE	
SNU216LR_PC2_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	6.62%	VAEPGAEATSSTGEESGSEHPPAVPMHNKF	R	K	80.40%	2.68	0.174	0	0	0	1	2	3,139.38	443	472	TRUE	
SNU216LR_PC2_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	6.62%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.51	0.405	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216LR_PC2_01	heterogeneous nuclear ribonucleoprotein U isofo	IPI00644079	90,585.20	100.00%	1	1	1	0.01%	3.88%	LQAALDDEEAGGRPAMEPGNGSLDLGGDS	R	S	95.00%	4.78	0.364	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216LR_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	4	4	4	0.02%	4.14%	GDTPGHATPGHGGATSSAR	R	K	95.00%	3.3	0.454	0	0	1	0	2	1,813.76	271	289	TRUE	
SNU216LR_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	4	4	4	0.02%	4.14%	GDTPGHATPGHGGATSSARK	R	N	95.00%	2.67	0.274	0	0	1	0	2	1,941.86	271	290	TRUE	
SNU216LR_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	4	4	4	0.02%	4.14%	GGDSIGETPTPGASKR	R	K	95.00%	3.01	0.343	0	1	0	0	2	1,689.69	319	334	TRUE	
SNU216LR_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	4	4	4	0.02%	4.14%	LLVDVDESTLSPEEQKER	K	K	91.20%	3.04	0.135	0	0	1	0	2	2,167.02	478	495	TRUE	
SNU216LR_PC2_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.56	0.358	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC2_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	4.5	0.489	0	0	1	1	2	2,184.10	472	489	TRUE	
SNU216LR_PC2_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.06	0.444	0	0	1	1	2	1,899.91	474	489	TRUE	
SNU216LR_PC2_01	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	5	5	0.03%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	5.45	0.464	0	1	1	0	2	2,298.08	9	31	TRUE	
SNU216LR_PC2_01	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	5	5	0.03%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.43	0.531	0	1	1	1	2	2,541.20	7	31	TRUE	
SNU216LR_PC2_01	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	3	3	0.02%	7.34%	EAANEAGDSSQDEAEDDVK	R	Q	95.00%	3.15	0.496	0	1	0	0	2	2,139.73	153	171	TRUE	
SNU216LR_PC2_01	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	3	3	0.02%	7.34%	IKEEPVSEEGEEDEEQEAEEEPMDTSPSGLH:	R	L	95.00%	5.86	0.441	0	0	1	1	2	3,780.55	497	529	TRUE	
SNU216LR_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	84.20%	5.98	0	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.63	0.547	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	4.11	0.492	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.47	0.328	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	6.62	0.0531	0	0	1	0	2	2,976.44	103	129	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	LNDPFQPFPGNDSPK	K	E	95.00%	3	0.2	0	1	0	0	2	1,752.76	668	682	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	NIIGSSPVADFSAIK	K	E	95.00%	2.88	0.293	0	1	0	0	2	1,598.78	319	333	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	SINKLDSPDPFK	R	L	95.00%	2.79	0.312	0	1	0	0	2	1,440.68	656	667	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	SINKLDSPDPFKLNDPFQPFPGNDSPK	R	E	95.00%	4.72	0.34	0	0	1	0	2	3,094.46	656	682	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	3.74	0.385	0	1	1	0	2	2,483.14	428	450	TRUE	
SNU216LR_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	7	12	14	0.09%	5.02%	GEEGSDDDETENGPKPK	K	K	95.00%	3.57	0.466	0	2	1	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	7	12	14	0.09%	5.02%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	3.44	0.376	0	1	1	0	2	2,307.92	936	955	TRUE	
SNU216LR_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	7	12	14	0.09%	5.02%	HPKGEEGSDDDETENGPKPK	R	K	95.00%	2.78	0.243	0	0	0	1	2	2,245.93	985	1004	TRUE	
SNU216LR_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	7	12	14	0.09%	5.02%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.8	0.576	0	1	1	0	2	2,436.01	935	955	TRUE	
SNU216LR_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	7	12	14	0.09%	5.02%	KGSGSEQEGEDEEGGER	R	K	95.00%	4.71	0.548	0	2	0	0	2	1,859.69	961	977	TRUE	
SNU216LR_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	7	12	14	0.09%	5.02%	KGSGSEQEGEDEEGGERK	R	K	95.00%	4.68	0.53	0	1	1	0	2	2,067.75	961	978	TRUE	
SNU216LR_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	7	12	14	0.09%	5.02%	RKGSGSEQEGEDEEGGER	R	K	95.00%	3.02	0.443	0	1	1	0	2	2,095.76	960	977	TRUE	
SNU216LR_PC2_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	3	3	0.02%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.6	0.389	0	0	1	0	2	1,689.71	1052	1066	TRUE	
SNU216LR_PC2_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	3	3	0.02%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	3.42	0.36	0	1	1	0	2	1,717.72	1051	1065	TRUE	
SNU216LR_PC2_01	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	3	3	0.02%	4.65%	NVDSLSAPHNHPPEDPFGSVPFISHSGSPEI	K	K	95.00%	5.65	0.349	0	0	0	1	2	3,362.51	662	692	TRUE	
SNU216LR_PC2_01	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	3	3	0.02%	4.65%	SESNEDLFGLVPFDEITGSQQQK	K	V	95.00%	3.87	0.471	0	1	1	0	2	2,648.18	947	969	TRUE	
SNU216LR_PC2_01	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	3	5	6	0.04%	5.21%	DLFDLNSSEEDDTEGFSER	K	G	95.00%	3.09	0.477	0	2	1	0	2	2,364.84	666	684	TRUE	
SNU216LR_PC2_01	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	3	5	6	0.04%	5.21%	EAARSPDKPGGSPSASR	R	R	95.00%	3.27	0.192	0	1	1	0	2	1,829.76	45	61	TRUE	
SNU216LR_PC2_01	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	3	5	6	0.04%	5.21%	QFKDLFDLNSSEEDDTEGFSER	K	G	95.00%	2.72	0.225	0	0	1	0	2	2,768.07	663	684	TRUE	
SNU216LR_PC2_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	3.53	0.328	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC2_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	4.33	0.262	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC2_01	GMP synthase	IPI00029079	76,716.70	100.00%	1	1	1	0.01%	1.59%	TLNMTTSPEEK	K	R	95.00%	2.22	0.248	0	1	0	0	2	1,330.56	326	336	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	7	0.04%	6.23%	AHLSENELEALEK	R	N	95.00%	2.78	0.362	0	1	0	0	2	1,562.71	859	871	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	7	0.04%	6.23%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	5.22	0.329	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	7	0.04%	6.23%	GLVAAYSGESDSEEEQER	R	G	95.00%	4.5	0.415	0	2	0	0	2	2,035.81	792	809	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	7	0.04%	6.23%	HRHSPTGPPGFPR	R	D	95.00%	2.77	0.284	0	0	1	0	2	1,522.71	151	163	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	7	0.04%	6.23%	LASDDRPSPPR	K	G	92.40%	2.14	0.189	0	2	0	0	2	1,290.58	781	791	TRUE	
SNU216LR_PC2_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	99.90%	1	1	1	0.01%	0.78%	WDKDDFESEEEDVK	K	S	95.00%	3.15	0.286	0	1	0	0	2	1,850.70	1144	1157	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	3	4	4	0.02%	4.54%	IDDRDSDEEGASDR	K	R	95.00%	2.6	0.407	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	3	4	4	0.02%	4.54%	QKIDDRDSDEEGASDR	K	R	95.00%	3.38	0.488	0	1	1	0	2	1,915.77	775	790	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	3	4	4	0.02%	4.54%	QPEKEEEEEEAGESVEDIFSEVVGR	K	K	95.00%	3	0.208	0	0	1	0	2	2,801.20	632	655	TRUE	
SNU216LR_PC2_01	insulin-like growth factor 2 mRNA binding protein	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	1	2	0.01%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3.04	0.422	0	2	0	0	2	1,980.90	152	168	TRUE	
SNU216LR_PC2_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	3	3	3	0.02%	4.21%	DSEDVSERDSDKEMATK	R	S	95.00%	3.33	0.315	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216LR_PC2_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	3	3	3	0.02%	4.21%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	4.01	0.456	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216LR_PC2_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	3	3	3	0.02%	4.21%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	3.31	0.348	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216LR_PC2_01	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	2	2	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	4.58	0.347	0	0	1	1	2	3,940.73	145	179	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.48	0.163	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	FLSAQSHSTSPQGLDSPLPLEGSGAHQVLHI	R	G	90.40%	5.52	0.0284	0	0	0	1	2	3,635.71	835	868	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	HGSDPAFAPGPR	R	G	95.00%	3.25	0.55	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	KGSPTPGFSTR	R	R	95.00%	2.34	0.282	0	0	1	0	2	1,214.56	879	889	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	RGSLTLTISGESPK	R	A	89.40%	2.56	0.154	0	0	1	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	RGSPTTGFIEQK	R	G	95.00%	2.63	0.267	0	1	1	0	2	1,400.66	890	901	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	RGSPTTGFIEQKGSPTSAYPER	R	R	95.00%	3.38	0.187	0	0	1	0	2	2,446.14	890	911	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	RGSPVPPVPER	R	R	95.00%	2.11	0.293	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	RGSPVPPVPERR	R	S	95.00%	3.65	0.299	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	RLSLGQGDSTEAATEER	R	G	95.00%	3.72	0.463	0	0	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	11	12	12	0.07%	15.10%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	3.05	0.205	0	0	1	0	2	2,639.07	4	25	TRUE	
SNU216LR_PC2_01	56 kDa protein	IPI00337602,IPI00373877	55,569.20	99.80%	2	2	2	0.01%	3.85%	ISLSKSPTKTDPK	K	N	95.00%	2.83	0.312	0	1	0	0	2	1,481.76	176	188	TRUE	
SNU216LR_PC2_01	56 kDa protein	IPI00337602,IPI00373877	55,569.20	99.80%	2	2	2	0.01%	3.85%	SPTKTDPKNEEEEK	K	R	95.00%	3.21	0.491	0	1	0	0	2	1,711.74	181	194	TRUE	
SNU216LR_PC2_01	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	4.18%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	4.39	0.513	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216LR_PC2_01	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	4.18%	GTNVMVTHYFLPPDDAVPSDDDLGTVPDY	K	K	95.00%	6.14	0.234	0	0	1	0	2	3,713.67	1751	1783	TRUE	
SNU216LR_PC2_01	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	4.18%	TITLVKSPISVPGGSALISNLGK	K	V	95.00%	2.52	0.242	0	0	1	0	2	2,332.29	591	613	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	DSENLASPSEYPENGER	R	F	84.90%	3.21	0.0902	0	2	0	0	2	1,973.78	617	633	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	NLNNSNLFSPVNR	K	D	94.10%	2.27	0.194	0	1	0	0	2	1,568.72	604	616	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	PAPPPQSQSPEVEQLGR	K	V	95.00%	2.83	0.359	0	1	0	0	2	1,896.89	926	942	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	TAPLPPASQTTPLQMALNGKPAPPPQSQSP	K	V	95.00%	4.04	0.157	0	0	0	1	2	3,913.95	906	942	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.94	0.35	0	1	1	0	2	1,971.75	883	898	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	3.36	0.288	0	2	2	0	2	2,392.99	538	560	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	GPTPPAMGPR	R	D	95.00%	1.82	0.343	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	LSASTASELSPK	R	S	95.00%	2.27	0.242	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	PAPPQEESPSSEAK	R	S	95.00%	2.63	0.305	0	2	0	0	2	1,533.65	79	92	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	QLPLEPESPSGQVGPR	K	P	95.00%	3.16	0.454	0	1	0	0	2	1,770.84	63	78	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	QSLPASPR	R	A	95.00%	2.18	0.211	0	1	0	0	2	935.4347	441	448	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.79	0.405	0	1	2	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	SLSRTPETLLPFAEAEAFLKK	K	A	95.00%	4.22	0.388	0	0	1	0	2	2,428.25	809	829	TRUE	
SNU216LR_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	11	15	0.09%	17.20%	WSWAGALHHSSPGHK	K	T	95.00%	3.29	0.333	0	0	1	0	2	1,737.76	231	245	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	4	0.02%	1.53%	QPLLLSEDEEDTK	K	R	93.40%	2.69	0.13	0	1	0	0	2	1,596.70	34	46	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	4	0.02%	1.53%	QPLLLSEDEEDTKR	K	V	95.00%	2.82	0.301	0	2	1	0	2	1,752.81	34	47	TRUE	
SNU216LR_PC2_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	2	2	0.01%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.46	0.338	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC2_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	2	2	0.01%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.81	0.387	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC2_01	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	99.80%	2	2	2	0.01%	6.87%	NFTKPQDGDVIAPLITPQKK	R	E	95.00%	4.2	0.401	0	0	1	0	2	2,290.18	577	596	TRUE	
SNU216LR_PC2_01	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	99.80%	2	2	2	0.01%	6.87%	TPSNTPSAEADWSPGLELHPDYK	R	T	95.00%	3.43	0.351	0	0	1	0	2	2,592.13	21	43	TRUE	
SNU216LR_PC2_01	Tripartite motif protein 56	IPI00514832	81,487.20	100.00%	3	3	3	0.02%	5.03%	AQTPHEDGGPQPHR	R	G	95.00%	3.15	0.327	0	0	1	0	2	1,606.68	440	453	TRUE	
SNU216LR_PC2_01	Tripartite motif protein 56	IPI00514832	81,487.20	100.00%	3	3	3	0.02%	5.03%	EPSPALGPNLDGSGLLPR	R	P	95.00%	2.49	0.369	0	1	0	0	2	1,869.91	473	490	TRUE	
SNU216LR_PC2_01	Tripartite motif protein 56	IPI00514832	81,487.20	100.00%	3	3	3	0.02%	5.03%	LKSISREPSPALGPNLDGSGLLPR	R	P	95.00%	3.51	0.38	0	0	1	0	2	2,714.27	467	490	TRUE	
SNU216LR_PC2_01	far upstream element-binding protein	IPI00375441	67,560.60	100.00%	1	1	1	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	4.02	0.564	0	1	0	0	2	2,661.16	621	644	TRUE	
SNU216LR_PC2_01	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	ALSSDSILSPAPDAR	R	A	91.50%	2.61	0.162	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216LR_PC2_01	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	ASTPDWVSEGPQPGLR	R	R	95.00%	2.54	0.33	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216LR_PC2_01	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	HLSESSGKPLSTK	R	Q	95.00%	2.41	0.244	0	0	1	0	2	1,450.69	469	481	TRUE	
SNU216LR_PC2_01	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	6	8	0.05%	10.10%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	5.05	0.403	0	1	1	1	2	2,616.22	446	467	TRUE	
SNU216LR_PC2_01	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	6	8	0.05%	10.10%	SANGGSESDGEENIGWSTVNLDEEK	R	Q	95.00%	4.75	0.579	0	2	1	0	2	2,704.09	591	615	TRUE	
SNU216LR_PC2_01	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	6	8	0.05%	10.10%	VENMDISDEEEGGAPPPGSPQVLEEDEAELI	R	Q	95.00%	5.77	0.513	0	0	2	0	2	3,840.60	468	501	TRUE	
SNU216LR_PC2_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NDLQDTEISPR	K	Q	95.00%	2.76	0.2	0	1	0	0	2	1,367.58	463	473	TRUE	
SNU216LR_PC2_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAK	R	S	95.00%	3.14	0.362	0	1	0	0	2	1,547.76	90	102	TRUE	
SNU216LR_PC2_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAKSPASSSSK	R	N	95.00%	4.91	0.0952	0	0	1	0	2	2,279.11	90	110	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	ASSLSESSPPK	R	A	95.00%	2.43	0.206	0	1	0	0	2	1,169.51	367	377	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	7.03	0.56	0	0	5	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	ETPHSPGVEDAPIAK	R	V	95.00%	2.87	0.393	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	7.56	0.651	0	1	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	8.04	0.524	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	LRSPPEALVQGR	R	Y	95.00%	3.11	0.436	0	1	2	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	SEVQQPVHPKPLSPDSR	K	A	95.00%	4.03	0.471	0	1	2	1	2	1,980.95	350	366	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.89	0.518	0	0	8	2	2	3,432.41	666	695	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	SLNWSSFVDNTFAEEFTTQNQK	K	S	95.00%	2.71	0.281	0	0	1	0	2	2,673.15	704	725	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	SNTENLSQHFR	R	K	83.70%	2.45	0.191	0	0	1	0	2	1,412.60	55	65	TRUE	
SNU216LR_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	11	18	33	0.21%	22.30%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.88	0.39	0	0	2	1	2	2,105.04	588	606	TRUE	
SNU216LR_PC2_01	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	4	4	0.02%	3.58%	ILSPSMASK	R	L	80.90%	1.55	0.291	0	1	0	0	2	1,013.47	69	77	TRUE	
SNU216LR_PC2_01	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	4	4	0.02%	3.58%	VSGSPEQAVEENLSSYSLDR	K	R	95.00%	4.57	0.546	0	1	1	0	2	2,246.98	174	193	TRUE	
SNU216LR_PC2_01	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	4	4	0.02%	3.58%	VSGSPEQAVEENLSSYSLDRR	K	V	95.00%	3.39	0.341	0	0	1	0	2	2,403.08	174	194	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	4	7	0.04%	3.72%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.91	0.634	0	2	2	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC2_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	4	7	0.04%	3.72%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.5	0.459	0	2	0	0	2	1,932.70	554	570	TRUE	
SNU216LR_PC2_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	4	7	0.04%	3.72%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.17	0.382	0	1	0	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC2_01	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	2	2	0.01%	5.69%	RPWRPEEAVEDPDEEDEDNTSEAENGFSLE	K	L	95.00%	3.57	0.18	0	0	0	1	2	4,068.73	14	47	TRUE	
SNU216LR_PC2_01	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	2	2	0.01%	5.69%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	6.2	0.382	0	0	1	0	2	3,132.14	621	646	TRUE	
SNU216LR_PC2_01	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	2	2	0.01%	8.70%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	7.18	0.0752	0	0	1	0	2	3,814.66	135	167	TRUE	
SNU216LR_PC2_01	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	2	2	0.01%	8.70%	GPVSPSVSFQPLAR	R	S	95.00%	3	0.492	0	1	0	0	2	1,521.75	219	232	TRUE	
SNU216LR_PC2_01	Molecule interacting with Rab13	IPI00174962	93,442.20	99.80%	1	1	1	0.01%	1.85%	SPVPSPGSSSPQLQVK	R	S	95.00%	3.91	0.495	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger protein 336	IPI00033892	80,490.80	99.80%	1	1	1	0.01%	1.55%	SFLVIVDGSPK	K	N	95.00%	2.08	0.259	0	1	0	0	2	1,241.62	605	615	TRUE	
SNU216LR_PC2_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	99.70%	2	2	2	0.01%	5.36%	HPEPVPEEGSEDELPPQVHKV	R	-	95.00%	3.12	0.341	0	0	1	0	2	2,429.10	819	839	TRUE	
SNU216LR_PC2_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	99.70%	2	2	2	0.01%	5.36%	LEASYSDSPPGEEDLLVHVAEGSK	R	S	94.40%	2.71	0.209	0	0	1	0	2	2,609.17	11	34	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	ASAVSELSPR	R	E	95.00%	1.96	0.387	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	ERSPALKSPLQSVVVR	R	R	95.00%	3.25	0.391	0	1	2	0	2	1,845.99	246	261	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	FSGEEGEIEDDESGTENR	K	E	95.00%	3.44	0.437	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	FSGEEGEIEDDESGTENREEKDNIQPTTE	K	-	95.00%	4.51	0.275	0	0	1	0	2	3,364.35	927	955	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	HGLAHDEMKSPR	K	E	95.00%	2.47	0.238	0	1	0	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	HGLAHDEMKSPREPGYK	K	A	95.00%	2.22	0.221	0	1	0	0	2	2,031.91	689	705	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	IDISPSTFR	R	K	95.00%	2.06	0.218	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	KHGLAHDEMKSPR	R	E	95.00%	2.17	0.394	0	1	0	0	2	1,585.73	688	700	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	MDSFDEDLAR	R	P	95.00%	2.31	0.25	0	1	0	0	2	1,278.47	573	582	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	NREEEWDPEYTPK	R	S	95.00%	2.6	0.184	0	1	0	0	2	1,772.72	864	876	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	SPALKSPLQSVVVR	R	R	95.00%	3.31	0.473	0	1	1	0	2	1,560.85	248	261	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	SPPSTGSTYGSSQK	K	E	95.00%	2.67	0.353	0	1	0	0	2	1,463.61	320	333	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	SPSELFAQHIVTIVHHVK	R	E	95.00%	3.19	0.357	0	0	2	2	2	2,122.08	622	639	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.38	0.172	0	1	0	0	2	2,011.84	315	333	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	TDSEKPFRGSQSPK	K	R	95.00%	2.77	0.345	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	3.54	0.269	0	0	1	0	2	2,797.03	922	944	TRUE	
SNU216LR_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	20	23	0.14%	16.90%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	3.91	0.399	0	0	0	1	2	3,103.24	922	947	TRUE	
SNU216LR_PC2_01	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	3	3	3	0.02%	3.52%	EFTGSPPSSATK	R	K	95.00%	2.18	0.296	0	1	0	0	2	1,288.55	550	561	TRUE	
SNU216LR_PC2_01	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	3	3	3	0.02%	3.52%	EFTGSPPSSATKK	R	D	95.00%	2.79	0.218	0	1	0	0	2	1,416.64	550	562	TRUE	
SNU216LR_PC2_01	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	3	3	3	0.02%	3.52%	NISSSPSVESLPGGR	K	E	95.00%	2.46	0.187	0	1	0	0	2	1,566.72	535	549	TRUE	
SNU216LR_PC2_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	AIGSTSKPQESPK	R	G	95.00%	2.38	0.34	0	1	1	0	2	1,409.67	231	243	TRUE	
SNU216LR_PC2_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	AIGSTSKPQESPKGK	R	R	95.00%	2.66	0.327	0	1	0	0	2	1,594.78	231	245	TRUE	
SNU216LR_PC2_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.93	0.393	0	1	1	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC2_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	TKPTQAAGPSSPQKPPTPEETK	K	A	95.00%	3.7	0.224	0	0	1	0	2	2,437.11	437	458	TRUE	
SNU216LR_PC2_01	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	3	3	3	0.02%	7.27%	DTTSPMELAALEK	K	I	95.00%	2.16	0.22	0	1	0	0	2	1,485.65	427	439	TRUE	
SNU216LR_PC2_01	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	3	3	3	0.02%	7.27%	EVEEDLDELYDSLEMYNPSDSGPEMEETESI	R	L	95.00%	7.34	0.0465	0	0	1	0	2	4,425.89	361	398	TRUE	
SNU216LR_PC2_01	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	3	3	3	0.02%	7.27%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	3.23	0.289	0	0	1	0	2	2,045.97	488	506	TRUE	
SNU216LR_PC2_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	1	1	1	0.01%	8.98%	NYQQNYQNSESGEKNEGSESAPEGQAQQ	R	R	95.00%	4.29	0.11	0	0	1	0	2	3,337.36	156	184	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	99.60%	2	2	2	0.01%	3.22%	IHSPIPDMSK	K	F	95.00%	2.26	0.399	0	1	0	0	2	1,204.54	663	672	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	99.60%	2	2	2	0.01%	3.22%	LFPADTSPSTATK	K	I	92.40%	2.21	0.222	0	1	0	0	2	1,415.65	650	662	TRUE	
SNU216LR_PC2_01	Isoform 1 of Mitogen-activated protein kinase kin	IPI00006752	142,101.10	99.80%	1	1	1	0.01%	1.45%	RDSPLQGSGQQNSQAGQR	R	N	95.00%	2.52	0.25	0	1	0	0	2	1,993.88	637	654	TRUE	
SNU216LR_PC2_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	1	1	1	0.01%	0.61%	AFGPGLQGGSAGSPAR	K	F	95.00%	2.77	0.266	0	1	0	0	2	1,509.68	1071	1086	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	3	3	0.02%	3.42%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	3.75	0.324	0	1	0	0	2	2,046.92	510	526	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	3	3	0.02%	3.42%	KKSTSLEPVER	R	S	95.00%	2.64	0.228	0	1	1	0	2	1,353.68	370	380	TRUE	
SNU216LR_PC2_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	5	0.03%	4.45%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	4.04	0.323	0	0	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC2_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	5	0.03%	4.45%	DKSTTPGGTGIKPFLER	K	F	95.00%	3.24	0.188	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216LR_PC2_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	5	0.03%	4.45%	NKASPQSEFMPSK	K	G	95.00%	3.21	0.379	0	2	0	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC2_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	5	0.03%	4.45%	QPLSEASNQQPLSGGEEK	R	S	95.00%	3.04	0.243	0	1	0	0	2	1,978.88	42	59	TRUE	
SNU216LR_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	5	6	6	0.04%	10.30%	ADIPVKSSPQAAVPYKK	K	D	95.00%	2.98	0.316	0	0	1	0	2	1,878.97	601	617	TRUE	
SNU216LR_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	5	6	6	0.04%	10.30%	KLDDDSDSPSFFEEKPEEPVVLALDPK	K	G	95.00%	4.07	0.272	0	0	1	0	2	3,126.44	731	757	TRUE	
SNU216LR_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	5	6	6	0.04%	10.30%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	3.75	0.373	0	1	1	0	2	2,296.94	948	966	TRUE	
SNU216LR_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	5	6	6	0.04%	10.30%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	95.00%	5.03	0.436	0	0	0	1	2	4,426.91	1057	1096	TRUE	
SNU216LR_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	5	6	6	0.04%	10.30%	NVHSEDFENR	R	I	94.30%	2.23	0.178	0	1	0	0	2	1,326.51	95	104	TRUE	
SNU216LR_PC2_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	6	0.04%	9.11%	DIEISTEEEKDTGDLK	R	D	95.00%	3.24	0.432	0	1	0	0	2	1,981.79	333	348	TRUE	
SNU216LR_PC2_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	6	0.04%	9.11%	DIEISTEEEKDTGDLKDSSLLK	R	T	95.00%	3.7	0.27	0	0	1	0	2	2,625.15	333	354	TRUE	
SNU216LR_PC2_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	6	0.04%	9.11%	KRSSSEDAESLAPR	R	S	95.00%	3.48	0.453	0	0	2	0	2	1,612.73	296	309	TRUE	
SNU216LR_PC2_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	6	0.04%	9.11%	SRPTSEGSDIESTEPQK	R	Q	95.00%	3.45	0.165	0	1	0	0	2	1,927.83	254	270	TRUE	
SNU216LR_PC2_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	6	0.04%	9.11%	SSSEDAESLAPR	R	S	95.00%	2.89	0.394	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216LR_PC2_01	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	3.41%	AQSSPASATFPVSVQEPPTKPR	R	F	95.00%	4.26	0.466	0	0	1	0	2	2,362.14	630	651	TRUE	
SNU216LR_PC2_01	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	3.41%	QEPIESDEEEAEPPR	K	E	95.00%	2.93	0.424	0	1	0	0	2	1,834.74	560	574	TRUE	
SNU216LR_PC2_01	Caskin-2	IPI00103516	126,713.60	100.00%	3	3	3	0.02%	3.00%	GSGHSQEQPAPQPSGGDPSPPQER	R	N	95.00%	4.03	0.3	0	0	1	0	2	2,507.06	707	730	TRUE	
SNU216LR_PC2_01	Caskin-2	IPI00103516	126,713.60	100.00%	3	3	3	0.02%	3.00%	SPSQESIGAR	R	S	95.00%	1.81	0.424	0	1	0	0	2	1,111.48	695	704	TRUE	
SNU216LR_PC2_01	Caskin-2	IPI00103516	126,713.60	100.00%	3	3	3	0.02%	3.00%	SRGSGHSQEQPAPQPSGGDPSPPQER	R	N	95.00%	5.06	0.323	0	0	1	0	2	2,750.19	705	730	TRUE	
SNU216LR_PC2_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.80%	2	2	2	0.01%	1.92%	DGSPEAPASPEREEVALSEYK	K	T	95.00%	3.42	0.191	0	0	1	0	2	2,420.99	1345	1365	TRUE	
SNU216LR_PC2_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.80%	2	2	2	0.01%	1.92%	VDHGAEIITQSPGR	R	S	95.00%	3.82	0.499	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.02%	3.02%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.73	0.225	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216LR_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.02%	3.02%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	3.7	0.242	0	0	0	1	2	4,169.94	1604	1643	TRUE	
SNU216LR_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.02%	3.02%	SGSLDSELSVSPK	K	R	95.00%	2.94	0.203	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216LR_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.02%	3.02%	SGSLDSELSVSPKR	K	N	95.00%	2.78	0.341	0	1	0	0	2	1,541.72	2722	2735	TRUE	
SNU216LR_PC2_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.90%	1	1	1	0.01%	3.21%	DKSPVREPIDNLTPEER	K	D	95.00%	2.83	0.194	0	1	0	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.74%	NINMDNDLEVLTSSPTR	K	N	95.00%	4.43	0.437	0	1	0	0	2	1,998.88	538	554	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.74%	TVEDEDQDSEEEKDNDSYIK	K	E	95.00%	4.69	0.474	0	1	0	0	2	2,467.95	406	425	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.74%	TVEDEDQDSEEEKDNDSYIKER	K	S	95.00%	3.12	0.238	0	0	1	0	2	2,753.09	406	427	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	AEEGDADEKLFEESDDKEDEDADGK	K	E	95.00%	3.04	0.314	0	0	1	0	2	2,866.10	663	687	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	DLDEEGSEKELHENVLDK	K	E	95.00%	4.16	0.428	0	1	1	0	2	2,178.94	573	590	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.88	0.454	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	ELHENVLDKELEENDSENSEFEDDGSEK	K	V	95.00%	6.07	0.518	0	0	2	0	2	3,439.33	582	609	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	ESEDDLNKESEEEVGPTK	K	E	95.00%	3.18	0.308	0	1	0	0	2	2,114.87	520	537	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	ESEEGNPVRGSEEDSPKK	K	E	90.40%	2.7	0.158	0	0	1	0	2	2,053.87	484	501	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	LFDEEEDSSEKLFDDSDER	K	G	95.00%	4.15	0.404	0	2	2	0	2	2,384.93	706	724	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	2.82	0.37	0	1	0	0	2	2,679.98	696	716	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	LFEDDDSNEKLFDEEEDSSEKLFDDSDER	K	G	95.00%	3.62	0.308	0	0	1	0	2	3,657.38	696	724	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	LFEESDDKEDEDADGK	K	E	95.00%	3.35	0.316	0	1	1	0	2	1,921.72	672	687	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.97	0.505	0	0	2	1	2	2,837.11	672	695	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.4	0.339	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	6.19	0.439	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	VLDEEGSER	K	E	95.00%	1.51	0.332	0	1	0	0	2	1,113.45	610	618	TRUE	
SNU216LR_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	15	21	25	0.16%	24.80%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.61	0.289	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC2_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	3.89%	AEEEHLSSSGGLAK	R	N	95.00%	2.95	0.195	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216LR_PC2_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	3.89%	HLNSSQPSGFGPANSLEDVVR	K	L	95.00%	4.91	0.467	0	0	1	0	2	2,291.05	485	505	TRUE	
SNU216LR_PC2_01	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	3.89%	SLDSESISPGDFHR	R	K	95.00%	2.81	0.345	0	1	0	0	2	1,626.68	552	565	TRUE	
SNU216LR_PC2_01	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.45%	KYESDEDSLGSSGR	R	V	95.00%	2.25	0.291	0	2	0	0	2	1,689.60	467	480	TRUE	
SNU216LR_PC2_01	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.45%	LEGVDGGQSPR	R	A	95.00%	2.15	0.313	0	1	0	0	2	1,194.52	10	20	TRUE	
SNU216LR_PC2_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	99.80%	1	1	1	0.01%	0.77%	LVSPGSANETSSILVESVTR	R	S	95.00%	4.74	0.18	0	1	0	0	2	2,126.04	2452	2471	TRUE	
SNU216LR_PC2_01	Methionyl-tRNA synthetase	IPI00008240	101,117.50	100.00%	1	1	1	0.01%	3.11%	TSPKPAVVETVTTAKPQQIQALMDEVTK	K	Q	95.00%	5.1	0.508	0	0	0	1	2	3,090.58	824	851	TRUE	
SNU216LR_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	AKNWEDEDFYDSDDDTFLDR	K	T	95.00%	3.72	0.553	0	0	1	0	2	2,575.98	455	474	TRUE	
SNU216LR_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	KMLGEDSDEEEEMDTSER	K	K	95.00%	4.83	0.579	0	1	1	0	2	2,209.82	306	323	TRUE	
SNU216LR_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	MLGEDSDEEEEMDTSER	K	K	95.00%	3.39	0.385	0	1	0	0	2	2,081.72	307	323	TRUE	
SNU216LR_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	NWEDEDFYDSDDDTFLDR	K	T	95.00%	4.18	0.408	0	1	1	0	2	2,376.85	457	474	TRUE	
SNU216LR_PC2_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.99	0.279	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC2_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	2.92	0.284	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bromodomain-containing protein 3	IPI00014266	79,542.50	100.00%	3	3	3	0.02%	4.68%	QASASYDSEEEEEGLPMSYDEK	K	R	95.00%	3.1	0.311	0	1	0	0	2	2,573.98	556	577	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bromodomain-containing protein 3	IPI00014266	79,542.50	100.00%	3	3	3	0.02%	4.68%	QASASYDSEEEEEGLPMSYDEKR	K	Q	95.00%	4.09	0.379	0	0	1	0	2	2,730.08	556	578	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bromodomain-containing protein 3	IPI00014266	79,542.50	100.00%	3	3	3	0.02%	4.68%	SESPPPLSDPK	R	Q	95.00%	2.46	0.202	0	1	0	0	2	1,233.54	261	271	TRUE	
SNU216LR_PC2_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	99.70%	1	1	1	0.01%	4.62%	VMIYQDEVKLPAKLSISK	K	S	94.80%	2.51	0.189	0	0	1	0	2	2,142.13	153	170	TRUE	
SNU216LR_PC2_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	3	4	0.02%	4.91%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	2.15	0.338	0	2	0	0	2	1,927.99	389	406	TRUE	
SNU216LR_PC2_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	3	4	0.02%	4.91%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	5.63	0.409	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216LR_PC2_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	3	4	0.02%	4.91%	KPSEDEVLNK	R	G	84.90%	1.99	0.206	0	1	0	0	2	1,238.57	985	994	TRUE	
SNU216LR_PC2_01	Glutaminyl-tRNA synthetase	IPI00026665	87,799.90	100.00%	1	1	1	0.01%	1.55%	RLSFLVSYIASK	R	K	95.00%	2.74	0.276	0	1	0	0	2	1,463.77	68	79	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.82%	SPPYTAFLGNLPYDVTEESIKEFFR	K	G	95.00%	5.73	0.408	0	0	1	0	2	3,000.41	93	117	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.82%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.99	0.517	0	3	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.82%	SRTGSESSQTGTSTTSSR	R	N	82.20%	3.02	0.0611	0	1	0	0	2	1,896.79	418	435	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.82%	TGSESSQTGTSTTSSR	R	N	95.00%	3.42	0.0968	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	4	4	0.02%	7.72%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	5.55	0.572	0	1	1	1	2	3,107.21	566	591	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	4	4	0.02%	7.72%	SWASLFHDSKPSSSSPVAYVETKYSPPAISPL	K	Q	95.00%	6.41	0.0314	0	0	0	1	2	3,958.92	346	381	TRUE	
SNU216LR_PC2_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	3	3	0.02%	3.98%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	2.66	0.367	0	1	0	0	2	2,075.92	342	359	TRUE	
SNU216LR_PC2_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	3	3	0.02%	3.98%	KRSPSPSPTPEAK	R	K	95.00%	1.98	0.278	0	1	0	0	2	1,621.64	300	312	TRUE	
SNU216LR_PC2_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	3	3	0.02%	3.98%	TLTDEVNSPDSDRR	K	D	95.00%	2.97	0.265	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216LR_PC2_01	Isoform 1 of Dynamin-2	IPI00033022,IPI00181352,IP	98,024.70	100.00%	1	2	2	0.01%	4.48%	EALNIIGDISTSTVSTPVPPPVDDTWLQSASS	K	R	83.20%	6.08	0	0	0	1	1	2	4,181.01	731	769	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	141,860.00	99.80%	2	2	2	0.01%	3.47%	KGSLAALYDLAVLK	R	K	95.00%	3.47	0.31	0	1	0	0	2	1,541.83	321	334	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	141,860.00	99.80%	2	2	2	0.01%	3.47%	SEAEDLAEPLSSTEGVAPLSQAPSPLAIPAIK	K	E	95.00%	4.63	0.422	0	0	1	0	2	3,268.62	353	384	TRUE	
SNU216LR_PC2_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.74	0.348	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216LR_PC2_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	KRVSVELTNSLFK	K	H	95.00%	3.65	0.352	0	0	1	0	2	1,600.85	660	672	TRUE	
SNU216LR_PC2_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	RVSVELTNSLFK	K	H	95.00%	3.06	0.33	0	0	1	0	2	1,472.75	661	672	TRUE	
SNU216LR_PC2_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	3	3	0.02%	7.36%	AGAAAGDSDEESRADDK	R	G	95.00%	3.9	0.51	0	1	1	0	2	1,744.67	330	346	TRUE	
SNU216LR_PC2_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	3	3	0.02%	7.36%	GGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	4.44	0.38	0	0	1	0	2	2,410.07	505	530	TRUE	
SNU216LR_PC2_01	Isoform 2 of ATR-interacting protein	IPI00102918,IPI00103517,IP	74,603.80	99.80%	2	3	3	0.02%	3.66%	LAAPSVSHVSPR	K	K	95.00%	3.01	0.325	0	1	1	0	2	1,300.64	215	226	TRUE	
SNU216LR_PC2_01	Isoform 2 of ATR-interacting protein	IPI00102918,IPI00103517,IP	74,603.80	99.80%	2	3	3	0.02%	3.66%	SLVHRLSDGDMTSALR	R	G	95.00%	3.1	0.32	0	0	1	0	2	1,837.86	512	527	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	AALKEWNGVVSESDSPVK	K	R	95.00%	3.52	0.251	0	1	0	0	2	1,995.94	37	54	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	AETPTESVSEPEVATK	K	Q	95.00%	3.76	0.519	0	2	0	0	2	1,754.77	193	208	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	EGEDGDQPTTPPKPLK	K	T	95.00%	2.94	0.333	0	1	0	0	2	1,788.81	174	189	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	4.36	0.281	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	EWNGVVSESDSPVK	K	R	95.00%	3.58	0.415	0	2	0	0	2	1,612.69	41	54	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	RTIQEVLEEQSEDEDR	K	E	95.00%	4.34	0.187	0	0	1	0	2	2,055.89	131	146	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	RTIQEVLEEQSEDEDREAK	K	R	93.90%	4.13	0.0848	0	0	1	0	2	2,384.06	131	149	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	TIQEVLEEQSEDEDR	R	E	95.00%	3.23	0.221	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	TIQEVLEEQSEDEDREAK	R	R	95.00%	3.34	0.16	0	1	0	0	2	2,227.96	132	149	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	TIQEVLEEQSEDEDREAKR	R	K	95.00%	3.05	0.204	0	0	1	0	2	2,384.06	132	150	TRUE	
SNU216LR_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	11	15	0.09%	10.80%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.83	0.488	0	3	0	0	2	1,839.79	63	79	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC84081 isoform 1	IPI00030274	66,390.60	99.30%	2	2	2	0.01%	8.96%	KTQQLHPVLQKPSVFGNDSDDDDETSVSES	K	E	95.00%	6.17	0.0409	0	0	0	1	2	3,779.74	15	47	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC84081 isoform 1	IPI00030274	66,390.60	99.30%	2	2	2	0.01%	8.96%	SQNHSRSPSEERGHSTR	R	H	86.30%	1.72	0.337	0	0	1	0	2	2,191.81	285	301	TRUE	
SNU216LR_PC2_01	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	99.90%	2	2	3	0.02%	6.58%	KADTTTPTPTAILAPGSPASPPGSLEPK	R	A	95.00%	4.77	0.439	0	0	2	0	2	2,782.39	282	309	TRUE	
SNU216LR_PC2_01	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	99.90%	2	2	3	0.02%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEKR	K	Q	95.00%	4.82	0.346	0	0	0	1	2	3,164.34	622	648	TRUE	
SNU216LR_PC2_01	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	3	4	4	0.02%	4.91%	EDENDASDDEDDDEKR	R	R	95.00%	3.07	0.585	0	1	0	0	2	1,976.65	256	271	TRUE	
SNU216LR_PC2_01	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	3	4	4	0.02%	4.91%	EDENDASDDEDDDEKRR	R	I	95.00%	3.32	0.41	0	1	1	0	2	2,132.75	256	272	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	3	4	4	0.02%	4.91%	MADHLEGLSSDDEETSTDITNFNLEKDR	K	I	95.00%	4.99	0.177	0	0	1	0	2	3,342.34	549	576	TRUE	
SNU216LR_PC2_01	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	100.00%	2	2	3	0.02%	2.79%	LLEDSEESSEETVSR	R	A	95.00%	2.94	0.321	0	2	0	0	2	1,789.74	103	117	TRUE	
SNU216LR_PC2_01	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	100.00%	2	2	3	0.02%	2.79%	QQTEKPESEDEWER	K	T	95.00%	2.69	0.206	0	0	1	0	2	1,870.75	157	170	TRUE	
SNU216LR_PC2_01	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	100.00%	3	3	3	0.02%	8.41%	ARSMDSSDLSDGAVTLQEYLELKK	R	A	95.00%	5.65	0.464	0	0	1	0	2	2,736.28	408	431	TRUE	
SNU216LR_PC2_01	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	100.00%	3	3	3	0.02%	8.41%	SLSSPTDNLELSLR	K	S	95.00%	2.6	0.404	0	1	0	0	2	1,611.76	359	372	TRUE	
SNU216LR_PC2_01	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	100.00%	3	3	3	0.02%	8.41%	SQSDLDDQHDYDSVASDEDTDQEPLR	R	S	92.10%	4.68	0.0716	0	0	1	0	2	3,060.19	373	398	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	AVTPVPTK	R	T	95.00%	1.38	0.363	1	0	0	0	2	892.4541	524	531	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.06	0.428	0	0	1	0	2	1,792.91	524	539	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.93	0.54	0	0	2	1	2	3,607.64	74	113	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	ETESAPGSPR	K	A	95.00%	1.9	0.422	1	1	0	0	2	1,110.45	514	523	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.82	0.344	0	1	1	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	HSSNPPLESHVGWVMDSR	R	E	95.00%	4.05	0.506	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.37	0.362	0	0	2	0	2	2,405.19	130	152	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	NTFTAWSDEESDYEIDDR	K	D	95.00%	3.66	0.204	0	2	0	0	2	2,272.86	621	638	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	4.85	0.388	0	1	2	0	2	2,729.09	621	642	TRUE	
SNU216LR_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	14	20	0.12%	14.60%	SLPTTVPESPNYR	R	N	95.00%	2.21	0.314	0	3	0	0	2	1,540.70	766	778	TRUE	
SNU216LR_PC2_01	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	2	3	3	0.02%	5.91%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	7.33	0.653	0	1	1	0	2	3,106.31	797	824	TRUE	
SNU216LR_PC2_01	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	2	3	3	0.02%	5.91%	KGELMENDQDAMEYSSEEEEVDLQTALTG	K	Q	95.00%	5.25	0.0672	0	0	1	0	2	3,941.59	281	313	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	99.80%	1	1	1	0.01%	1.15%	LAEDEGDSEPEAVGQSR	R	G	95.00%	4.29	0.422	0	1	0	0	2	1,868.75	1461	1477	TRUE	
SNU216LR_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	DRTPPLLYR	R	D	95.00%	2.5	0.245	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216LR_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	LKSPSQKQDGGTAPVASASPK	K	L	95.00%	2.55	0.229	0	0	1	0	2	2,134.05	763	783	TRUE	
SNU216LR_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	SLSPGGAALGYR	R	D	95.00%	1.97	0.28	0	1	0	0	2	1,308.54	292	303	TRUE	
SNU216LR_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	TTAPTEGKSPLKK	R	E	95.00%	2.81	0.283	0	1	1	0	2	1,437.74	733	745	TRUE	
SNU216LR_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	AGGLDWPEATEVSPSR	R	T	95.00%	3.44	0.313	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.44	0.286	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216LR_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.01	0.323	0	0	1	0	2	2,142.05	308	326	TRUE	
SNU216LR_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	4.84	0.448	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216LR_PC2_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	K	L	95.00%	3.29	0.344	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216LR_PC2_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	3.96	0.437	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	AHSDDEKWGR	K	E	95.00%	2.58	0.318	0	1	1	0	2	1,280.51	138	147	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	AQGSDEDKLQNSDDDEK	R	M	95.00%	3.87	0.318	0	2	0	0	2	1,973.76	168	184	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	EDKSDQSDDEKIQNSDDEER	R	A	95.00%	3.46	0.354	0	1	2	0	2	2,461.95	148	167	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	GSDSEDEVLR	R	M	93.00%	1.57	0.301	0	1	0	0	2	1,266.43	276	285	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	IYSSDSDEGSEEDKAQR	R	L	95.00%	3.69	0.419	0	1	0	0	2	1,995.78	605	621	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	KLTSDEEGEPSGK	K	R	95.00%	2.7	0.518	0	1	0	0	2	1,536.59	627	639	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	KLTSDEEGEPSGKR	K	K	95.00%	2.65	0.346	0	2	2	0	2	1,692.69	627	640	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	KYVISDEEEEDDD	K	-	95.00%	2.58	0.446	0	1	0	0	2	1,665.61	654	666	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	LTSDEEGEPSGK	K	R	95.00%	2.47	0.336	0	1	0	0	2	1,328.53	628	639	TRUE	
SNU216LR_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	10	13	18	0.11%	17.70%	NAIASDSEADSDTEVPK	K	D	95.00%	2.94	0.459	0	2	0	0	2	1,988.68	290	306	TRUE	
SNU216LR_PC2_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AHAWPSPYK	R	D	95.00%	1.71	0.354	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216LR_PC2_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AHAWPSPYKDYEVK	R	K	95.00%	3.1	0.269	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC2_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AHAWPSPYKDYEVKK	R	E	95.00%	3.74	0.398	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216LR_PC2_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNQ	R	E	80.10%	5.16	0.0222	0	0	0	1	2	4,125.84	299	333	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	6.26	0.424	0	0	2	1	2	2,877.32	600	626	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	4.96	0.56	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	5.69	0.583	0	0	2	0	2	3,452.30	627	658	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	8	0.05%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	6.48	0.431	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216LR_PC2_01	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	NESEDNKFSDDSDDDFVQPR	R	K	95.00%	3	0.25	0	0	1	0	2	2,518.89	983	1002	TRUE	
SNU216LR_PC2_01	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	SEWLDPSQKSPLHVGETR	K	K	95.00%	3.36	0.259	0	0	1	0	2	2,146.00	768	785	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	ADSDGAKPEPVAMAR	K	S	95.00%	2.62	0.394	0	1	0	0	2	1,594.69	238	252	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	FALKVDSPDVKR	K	C	83.60%	2.32	0.169	0	0	1	0	2	1,454.74	484	495	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	GEAERGSGGSSGDELREDDEPVK	R	K	95.00%	2.27	0.246	0	1	0	0	2	2,615.95	360	382	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	4.41	0.476	0	1	1	1	2	2,322.91	616	635	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	GRGPPSSSDSEPEAELER	R	E	95.00%	2.13	0.339	0	1	0	0	2	2,139.77	390	407	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	GSGGSSGDELREDDEPVK	R	K	95.00%	2.74	0.379	0	1	0	0	2	1,993.74	365	382	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	GSGGSSGDELREDDEPVKK	R	R	95.00%	2.69	0.243	0	0	1	0	2	2,121.84	365	383	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	GVMAVTAVTATAASDR	R	M	95.00%	3.08	0.352	0	1	0	0	2	1,600.74	124	139	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	KRSEGFSMDR	R	K	95.00%	2.03	0.326	0	0	1	0	2	1,292.55	452	461	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	MESDSDSDKSSDNSGLK	R	R	89.20%	1.72	0.301	0	1	0	0	2	1,961.67	140	156	TRUE	
SNU216LR_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	11	13	13	0.08%	19.80%	MESDSDSDKSSDNSGLKR	R	K	83.20%	3.12	0.0528	0	1	0	0	2	2,117.77	140	157	TRUE	
SNU216LR_PC2_01	Protein KIAA0776	IPI00396421	89,598.00	99.80%	1	1	1	0.01%	2.02%	KDDDSDDESQSSHTGK	R	K	95.00%	2.63	0.201	0	0	1	0	2	1,830.67	454	469	TRUE	
SNU216LR_PC2_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	3	3	0.02%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	2.63	0.341	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC2_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	3	3	0.02%	16.10%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.03	0.432	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC2_01	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	99.80%	2	2	2	0.01%	3.36%	SPGGGSEANGLALVSGFK	R	R	95.00%	2.86	0.45	0	1	0	0	2	1,727.80	183	200	TRUE	
SNU216LR_PC2_01	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	99.80%	2	2	2	0.01%	3.36%	SSEPVQADESQSPR	R	D	95.00%	2.69	0.261	0	1	0	0	2	1,596.65	878	891	TRUE	
SNU216LR_PC2_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	7.50%	HSSDINHLVTQGRESPEGSYTDDANQEVR	R	G	85.20%	4.57	0.054	0	0	0	1	2	3,321.44	482	510	TRUE	
SNU216LR_PC2_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	7.50%	RHSSDINHLVTQGR	R	E	95.00%	2.67	0.179	0	0	0	1	2	1,699.80	481	494	TRUE	
SNU216LR_PC2_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	7.50%	TISDGTISASK	R	Q	95.00%	2.04	0.289	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216LR_PC2_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	3.69	0.291	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC2_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.75	0.209	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC2_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SPVSTRPLPSASQK	R	A	95.00%	2.38	0.217	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216LR_PC2_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SSPQLDPLR	R	K	95.00%	1.85	0.381	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC2_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SSPQLDPLRK	R	S	95.00%	2.42	0.199	0	0	1	0	2	1,220.60	182	191	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	palladin	IPI00292009	122,047.90	100.00%	5	9	9	0.06%	4.79%	GRSPRSPSGHPHVR	R	R	95.00%	2.96	0.408	0	0	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC2_01	palladin	IPI00292009	122,047.90	100.00%	5	9	9	0.06%	4.79%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	2.99	0.353	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC2_01	palladin	IPI00292009	122,047.90	100.00%	5	9	9	0.06%	4.79%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	4.24	0.447	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC2_01	palladin	IPI00292009	122,047.90	100.00%	5	9	9	0.06%	4.79%	SRDSGDENEPIQER	R	F	95.00%	3.05	0.245	0	1	1	0	2	1,711.69	894	907	TRUE	
SNU216LR_PC2_01	palladin	IPI00292009	122,047.90	100.00%	5	9	9	0.06%	4.79%	SRSRDSGDENEPIQER	R	F	95.00%	2.33	0.33	0	1	1	0	2	2,114.76	892	907	TRUE	
SNU216LR_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	6	7	0.04%	8.78%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	4.38	0.464	0	1	1	0	2	2,428.13	618	639	TRUE	
SNU216LR_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	6	7	0.04%	8.78%	GADNDGSGSESGYTTPK	K	K	95.00%	4.06	0.513	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	6	7	0.04%	8.78%	NDSWGSFDLR	R	A	95.00%	2.26	0.415	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	6	7	0.04%	8.78%	RTSPQVLGSILK	K	S	95.00%	3.26	0.306	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	6	7	0.04%	8.78%	TSPQVLGSILK	R	S	95.00%	2.01	0.379	0	1	0	0	2	1,222.64	571	581	TRUE	
SNU216LR_PC2_01	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	2	0.01%	2.90%	DMQPLSPISVHER	R	Y	95.00%	2.98	0.392	0	1	0	0	2	1,588.72	635	647	TRUE	
SNU216LR_PC2_01	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	2	0.01%	2.90%	VKSPVSLTAHSLIGASPK	K	Q	95.00%	4.69	0.519	0	0	1	0	2	1,872.00	747	764	TRUE	
SNU216LR_PC2_01	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	99.80%	2	2	2	0.01%	9.05%	AETSEGSGSAPAVPEASASPK	K	Q	95.00%	4.72	0.557	0	1	0	0	2	2,009.87	74	94	TRUE	
SNU216LR_PC2_01	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	99.80%	2	2	2	0.01%	9.05%	SSSASSPPKKEHHHHHHHSESPK	R	A	95.00%	3.36	0.223	0	0	0	1	2	2,672.19	367	389	TRUE	
SNU216LR_PC2_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	99.80%	1	1	1	0.01%	1.52%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	5.09	0.49	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216LR_PC2_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	3	4	4	0.02%	3.25%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.41	0.366	0	1	1	0	2	2,366.08	1320	1340	TRUE	
SNU216LR_PC2_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	3	4	4	0.02%	3.25%	SVVSDLEADDVK	K	G	95.00%	2.48	0.354	0	1	0	0	2	1,356.59	1455	1466	TRUE	
SNU216LR_PC2_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	3	4	4	0.02%	3.25%	VPDEEENEESDNEKETEK	K	S	95.00%	3.14	0.383	0	1	0	0	2	2,229.86	1178	1195	TRUE	
SNU216LR_PC2_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	ATEDGEEDEVSAGEK	K	E	95.00%	2.85	0.266	0	1	0	0	2	1,645.61	1425	1439	TRUE	
SNU216LR_PC2_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	SKATEDGEEDEVSAGEK	K	E	95.00%	2.53	0.278	0	1	0	0	2	1,860.74	1423	1439	TRUE	
SNU216LR_PC2_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	SQNSQESTADESEDDMSSQASK	K	S	95.00%	4.95	0.243	0	1	0	0	2	2,440.89	1401	1422	TRUE	
SNU216LR_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	5	6	6	0.04%	2.07%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.78	0.502	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	5	6	6	0.04%	2.07%	GYYSPYSVSGSGSTAGSR	R	T	81.10%	3.36	0.022	0	1	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	5	6	6	0.04%	2.07%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	90.00%	5.34	0.0398	0	0	1	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	5	6	6	0.04%	2.07%	SDEGQLSPATR	R	G	94.90%	2.11	0.212	0	1	0	0	2	1,240.52	714	724	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	5	6	6	0.04%	2.07%	SSSVGSSSSYPISPAVSR	R	T	93.70%	4.15	0.0207	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_01	smooth muscle cell associated protein-1 isoform	IPI00072534	103,078.90	100.00%	1	1	1	0.01%	1.48%	PATPGASSVEQLRK	R	E	95.00%	3.97	0.446	0	0	1	0	2	1,520.75	13	26	TRUE	
SNU216LR_PC2_01	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	99.10%	2	2	2	0.01%	5.90%	AVSPPHLDGPPSPRSPVIGSEVFLPNSNHVA	K	V	95.00%	3.73	0.216	0	0	0	1	2	4,300.91	516	555	TRUE	
SNU216LR_PC2_01	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	99.10%	2	2	2	0.01%	5.90%	SSPEQPRPSTSK	R	A	82.30%	2.14	0.223	0	1	0	0	2	1,380.62	504	515	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	99.80%	1	1	1	0.01%	1.22%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	3.19	0.235	0	0	1	0	2	2,295.91	725	743	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	218,246.70	99.20%	2	3	3	0.02%	1.21%	AVIVSSPK	K	A	95.00%	1.96	0.295	0	1	0	0	2	880.454	1396	1403	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	218,246.70	99.20%	2	3	3	0.02%	1.21%	HLEAADKGHSPAQKPK	K	T	84.40%	2.81	0.13	0	0	1	1	2	1,793.87	596	611	TRUE	
SNU216LR_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	5	6	8	0.05%	9.94%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	3.17	0.552	0	0	1	1	2	2,580.79	423	442	TRUE	
SNU216LR_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	5	6	8	0.05%	9.94%	QEEMNSQQEEEEMETDAR	R	S	95.00%	4.02	0.446	0	1	0	0	2	2,292.83	284	301	TRUE	
SNU216LR_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	5	6	8	0.05%	9.94%	SRGSDSPAADVEIEYVTEEPEIYEPNFIFFK	R	R	89.30%	6.07	0.0131	0	0	1	0	2	3,658.65	357	387	TRUE	
SNU216LR_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	5	6	8	0.05%	9.94%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.48	0.119	0	3	0	0	2	2,020.86	302	320	TRUE	
SNU216LR_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	5	6	8	0.05%	9.94%	SSLGQSASETEEDTVSVSKK	R	E	95.00%	3.14	0.14	0	1	0	0	2	2,228.92	302	321	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	100.00%	3	4	5	0.03%	9.69%	FMEQSRSPSVSPSK	K	Q	95.00%	2.88	0.221	0	1	0	0	2	1,646.72	219	232	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	100.00%	3	4	5	0.03%	9.69%	SAYQEYDSDSDVPEELKR	K	D	95.00%	3.77	0.0897	0	2	1	0	2	2,210.91	283	300	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	100.00%	3	4	5	0.03%	9.69%	SPSVSPSKQPVSTSSK	R	T	86.40%	3.4	0.0348	0	1	0	0	2	1,762.77	225	240	TRUE	
SNU216LR_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	14.70%	AGSSAAGASGWTSAGSLNSVPTNSAQQGI	K	G	95.00%	6.91	0.0203	0	0	1	0	2	3,892.74	721	761	TRUE	
SNU216LR_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	14.70%	ANFDEENAYFEDEEEDSSNVDLPYIPAENSP	R	Q	95.00%	3.6	0.464	0	0	1	0	2	3,886.58	67	99	TRUE	
SNU216LR_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	14.70%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	5.57	0.527	0	0	1	1	2	3,457.45	100	129	TRUE	
SNU216LR_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	14.70%	RANFDEENAYFEDEEEDSSNVDLPYIPAENS	R	Q	95.00%	6.41	0.448	0	0	1	0	2	4,042.68	66	99	TRUE	
SNU216LR_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	14.70%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	4.99	0.498	0	0	2	1	2	3,749.61	163	195	TRUE	
SNU216LR_PC2_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	99.80%	2	3	3	0.02%	2.54%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.49	0.578	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216LR_PC2_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	99.80%	2	3	3	0.02%	2.54%	SSLSGDEEDELFK	R	G	95.00%	2.32	0.32	0	1	0	0	2	1,615.58	1279	1291	TRUE	
SNU216LR_PC2_01	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	99.80%	2	2	2	0.01%	2.29%	NASASFQELEDK	R	K	95.00%	2.35	0.356	0	1	0	0	2	1,498.55	45	56	TRUE	
SNU216LR_PC2_01	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	99.80%	2	2	2	0.01%	2.29%	NASASFQELEDKK	R	E	95.00%	2.86	0.401	0	1	0	0	2	1,546.68	45	57	TRUE	
SNU216LR_PC2_01	Isoform 3 of Double-stranded RNA-specific adena	IPI00025058	131,102.00	100.00%	1	1	1	0.01%	1.52%	TAESQTPTPSATSFFSGK	K	S	95.00%	3.76	0.06	0	1	0	0	2	1,923.84	596	613	TRUE	
SNU216LR_PC2_01	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.90%	3	3	3	0.02%	6.15%	AASLDSVATSR	R	V	95.00%	2.16	0.464	0	1	0	0	2	1,157.52	758	768	TRUE	
SNU216LR_PC2_01	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.90%	3	3	3	0.02%	6.15%	APSHMSSSHSFPQLAR	R	N	81.70%	2.34	0.164	0	0	1	0	2	1,819.79	174	189	TRUE	
SNU216LR_PC2_01	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.90%	3	3	3	0.02%	6.15%	QAGAPGGSSGSGGSPELSALR	R	L	80.30%	3.21	0.036	0	1	0	0	2	1,922.86	527	547	TRUE	
SNU216LR_PC2_01	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTK	K	R	95.00%	3.95	0.181	0	0	1	0	2	2,971.13	299	323	TRUE	
SNU216LR_PC2_01	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTKR	K	R	95.00%	3.53	0.379	0	0	1	0	2	3,127.23	299	324	TRUE	
SNU216LR_PC2_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	5	5	0.03%	5.81%	GDLSDVEEEEEEEEMDVDEATGAVK	K	K	95.00%	5.18	0.46	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216LR_PC2_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	5	5	0.03%	5.81%	GDLSDVEEEEEEEEMDVDEATGAVKK	R	H	95.00%	5.24	0.445	0	0	1	0	2	2,833.15	829	853	TRUE	
SNU216LR_PC2_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	5	5	0.03%	5.81%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	5.89	0.0878	0	0	1	0	2	4,089.02	277	313	TRUE	
SNU216LR_PC2_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	5	5	0.03%	5.81%	YMNSDTTSPELR	R	E	95.00%	3	0.316	0	1	0	0	2	1,493.60	1105	1116	TRUE	
SNU216LR_PC2_01	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	GSLAPQDSDSEVSQNR	K	S	95.00%	2.67	0.452	0	1	0	0	2	1,769.73	418	433	TRUE	
SNU216LR_PC2_01	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	HSSADNLANEMTYITETEDVFYTYK	R	G	95.00%	5.79	0.548	0	0	1	0	2	3,022.27	393	417	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tight junction-associated protein 1	IPI00010544,IPI00643168,IP	61,822.20	99.80%	2	2	2	0.01%	5.21%	GSPEEELPLPAFEK	R	L	95.00%	2.11	0.311	0	1	0	0	2	1,622.74	299	312	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tight junction-associated protein 1	IPI00010544,IPI00643168,IP	61,822.20	99.80%	2	2	2	0.01%	5.21%	KDSLTQAQEQGNLLN	R	-	95.00%	3.29	0.327	0	1	0	0	2	1,738.80	543	557	TRUE	
SNU216LR_PC2_01	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.60%	1	1	1	0.01%	2.00%	SMPVLGSVSSVTK	K	T	95.00%	2.05	0.313	0	1	0	0	2	1,371.66	506	518	TRUE	
SNU216LR_PC2_01	Isoform 1 of Double-strand break repair protein M	IPI00029159,IPI00218853	80,595.10	99.80%	1	1	2	0.01%	3.11%	GVDFESSEDDDDDPFMNTSSLR	K	R	95.00%	4.4	0.643	0	2	0	0	2	2,557.96	683	704	TRUE	
SNU216LR_PC2_01	Lutheran blood group glycoprotein precursor	IPI00002406	67,403.90	100.00%	1	1	1	0.01%	5.25%	GAPPPGEPGLSHSGSEQPEQTGLLMGGASC	K	G	95.00%	5.48	0.487	0	0	1	0	2	3,166.43	586	618	TRUE	
SNU216LR_PC2_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	99.80%	2	2	2	0.01%	1.46%	ALQHTESPSETNKPHSK	K	S	95.00%	2.77	0.308	0	0	0	1	2	1,970.90	94	110	TRUE	
SNU216LR_PC2_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	99.80%	2	2	2	0.01%	1.46%	SESPPAELPSLR	R	R	95.00%	1.81	0.278	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216LR_PC2_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	2	2	2	0.01%	11.10%	ATSRGSNSGMDSNIDLTIVEDEEEESVALEQ	K	V	90.80%	6.47	0.0171	0	0	1	0	2	3,732.64	359	392	TRUE	
SNU216LR_PC2_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	2	2	2	0.01%	11.10%	SSPFKVSPLTFGR	K	K	95.00%	2.64	0.324	0	0	1	0	2	1,582.71	287	299	TRUE	
SNU216LR_PC2_01	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	3.07	0.386	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216LR_PC2_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	KDSNELSDSAGEEDSADLKR	K	A	95.00%	3.01	0.311	0	0	1	0	2	2,325.91	709	728	TRUE	
SNU216LR_PC2_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	KTESPIKLSPATPSR	K	K	95.00%	3.55	0.26	0	0	1	0	2	1,691.87	660	674	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	SPPLPAVIR	R	N	95.00%	1.63	0.476	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216LR_PC2_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	SVAVSDEEEVEEEAER	R	R	95.00%	3.48	0.255	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216LR_PC2_01	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	2	2	2	0.01%	1.50%	APLKPYPVSPSDK	K	V	95.00%	2.96	0.395	0	1	0	0	2	1,478.73	1043	1055	TRUE	
SNU216LR_PC2_01	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	2	2	2	0.01%	1.50%	APLKPYPVSPSDKVLIQEK	K	T	95.00%	2.71	0.245	0	0	1	0	2	2,189.16	1043	1061	TRUE	
SNU216LR_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.02%	8.28%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	5.86	0.421	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216LR_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.02%	8.28%	HDEESHSLSPPGENTVMADSFQIK	R	V	95.00%	4.2	0.445	0	0	1	0	2	2,735.17	518	541	TRUE	
SNU216LR_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.02%	8.28%	SSESDHFSYVQLR	R	N	95.00%	1.92	0.275	0	1	0	0	2	1,634.68	920	932	TRUE	
SNU216LR_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.02%	8.28%	VPSPHETKPDEDAEAFENHAEK	K	L	95.00%	4.5	0.405	0	0	0	1	2	2,557.09	583	604	TRUE	
SNU216LR_PC2_01	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	4.53%	AQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	4.13	0.375	0	0	1	0	2	3,028.06	273	297	TRUE	
SNU216LR_PC2_01	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	4.53%	ARPAPSRDPSPPR	R	K	95.00%	2.11	0.25	0	0	1	0	2	1,483.72	130	142	TRUE	
SNU216LR_PC2_01	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	4.53%	KAQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	6.19	0.537	0	0	1	0	2	3,156.16	272	297	TRUE	
SNU216LR_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	2	3	4	0.02%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	6.41	0.423	0	0	2	1	2	3,734.84	125	160	TRUE	
SNU216LR_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	2	3	4	0.02%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.19	0.298	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216LR_PC2_01	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	99.80%	2	3	3	0.02%	4.92%	IQQFDDGGSDEEDIWEEK	R	H	95.00%	2.78	0.369	0	1	1	0	2	2,219.87	529	546	TRUE	
SNU216LR_PC2_01	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	99.80%	2	3	3	0.02%	4.92%	SSSGSTDSEESTDSEEEDGAK	R	Q	95.00%	3.9	0.485	0	1	0	0	2	2,213.77	558	578	TRUE	
SNU216LR_PC2_01	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.02%	5.15%	GAAAAATGQPGTAPAGTPGAPPLAGMAIV	R	E	95.00%	4.01	0.527	0	0	1	0	2	2,652.32	525	554	TRUE	
SNU216LR_PC2_01	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.02%	5.15%	SGEGEVSGLMR	R	K	95.00%	2.3	0.431	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216LR_PC2_01	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.02%	5.15%	SRSGEGEVSGLMR	R	K	95.00%	3.2	0.387	0	1	1	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC2_01	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.90%	1	1	1	0.01%	0.99%	GGDVSPSPYSSSSWR	R	R	95.00%	3.07	0.249	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216LR_PC2_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	11	0.07%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	4.43	0.34	0	1	4	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC2_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	11	0.07%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	4.14	0.343	0	0	4	2	2	3,082.36	191	217	TRUE	
SNU216LR_PC2_01	Isoform 1 of DNA	IPI00031519	189,570.80	99.80%	1	1	1	0.01%	1.13%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	4.35	0.382	0	1	0	0	2	2,224.85	760	778	TRUE	
SNU216LR_PC2_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	4.68	0.401	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216LR_PC2_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	4.85	0.522	0	0	1	1	2	3,209.61	696	726	TRUE	
SNU216LR_PC2_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.99	0.0323	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216LR_PC2_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	99.80%	1	1	1	0.01%	0.97%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.48	0.518	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.01	0.253	0	0	1	0	2	2,279.98	667	686	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	GLAGPPASPGK	K	A	95.00%	2.33	0.419	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.52	0.418	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	4	0.02%	6.47%	KLQLERPVSPETQADLQR	R	N	95.00%	2.83	0.192	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216LR_PC2_01	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.07	0.655	0	0	1	0	2	3,332.21	541	570	TRUE	
SNU216LR_PC2_01	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	4.2	0.359	0	0	1	1	2	4,263.69	541	580	TRUE	
SNU216LR_PC2_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	99.80%	2	2	2	0.01%	5.57%	GFENVIHDKLPLQESEEEEREER	K	S	95.00%	3.24	0.208	0	0	0	1	2	2,892.31	143	165	TRUE	
SNU216LR_PC2_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	99.80%	2	2	2	0.01%	5.57%	VIGQDHDFSESSEEEAPAEASSGALR	R	S	95.00%	3.12	0.266	0	0	1	0	2	2,958.11	399	424	TRUE	
SNU216LR_PC2_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	3	4	4	0.02%	2.14%	AVVSPPKFVFGSESVK	K	S	91.90%	2.47	0.176	0	0	1	0	2	1,757.89	2507	2522	TRUE	
SNU216LR_PC2_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	3	4	4	0.02%	2.14%	NRPDYVSEEEEDDEDFETAVK	K	K	95.00%	2.88	0.45	0	1	0	0	2	2,596.02	2662	2682	TRUE	
SNU216LR_PC2_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	3	4	4	0.02%	2.14%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	5.22	0.437	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216LR_PC2_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	98.80%	1	1	1	0.01%	4.27%	ESESEAKVDGETASDSESR	K	A	95.00%	3.8	0.367	0	0	1	0	2	2,092.82	20	38	TRUE	
SNU216LR_PC2_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	2	3	0.02%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	3.98	0.468	0	1	2	0	2	2,205.10	225	244	TRUE	
SNU216LR_PC2_01	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	NSLTGEEGQLAR	R	V	95.00%	1.97	0.425	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216LR_PC2_01	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	RNSLTGEEGQLAR	R	V	95.00%	2.54	0.174	0	1	0	0	2	1,510.70	110	122	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	7	10	12	0.07%	11.30%	AIPELDAYEAEGLALDDEDVEELTASQR	R	E	95.00%	3.41	0.405	0	0	1	0	2	3,142.40	83	110	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	7	10	12	0.07%	11.30%	DLPPFEDESEGLLGTEGPLEEEEDGEELIGDG	R	D	95.00%	4.28	0.396	0	0	1	0	2	3,912.64	45	79	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	7	10	12	0.07%	11.30%	GLLYDSDEEDEERPAR	R	K	95.00%	3.52	0.432	0	2	2	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	7	10	12	0.07%	11.30%	GNDPLTSSPGR	R	S	95.00%	2.55	0.421	1	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	7	10	12	0.07%	11.30%	RGLLYDSDEEDEERPAR	R	K	95.00%	3.27	0.382	0	1	1	0	2	2,129.91	133	149	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	7	10	12	0.07%	11.30%	RTDALTSSPGR	R	D	95.00%	2.66	0.379	0	0	1	0	2	1,240.57	34	44	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	7	10	12	0.07%	11.30%	TDALTSSPGR	R	D	93.40%	1.63	0.192	1	0	0	0	2	1,084.47	35	44	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	26.40%	AGLGSPERPPK	R	T	95.00%	2.61	0.361	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	26.40%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.48	0.255	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	26.40%	LGGLRPESPESLTSVSR	R	T	95.00%	4.19	0.414	0	1	1	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	26.40%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	4.46	0.431	0	0	1	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	26.40%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	3.93	0.278	0	0	1	0	2	2,681.14	95	115	TRUE	
SNU216LR_PC2_01	Transcription repressor	IPI00382733	82,672.30	100.00%	3	4	6	0.04%	5.45%	IDGATQSSPAEPK	K	S	95.00%	2.74	0.285	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216LR_PC2_01	Transcription repressor	IPI00382733	82,672.30	100.00%	3	4	6	0.04%	5.45%	KKSPVPVETLK	K	D	89.30%	2.15	0.181	0	0	1	0	2	1,305.72	523	533	TRUE	
SNU216LR_PC2_01	Transcription repressor	IPI00382733	82,672.30	100.00%	3	4	6	0.04%	5.45%	RGSGDTSISIDTEASIR	R	E	95.00%	3.51	0.498	0	3	1	0	2	1,844.84	86	102	TRUE	
SNU216LR_PC2_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	EELMSSDLEETAGSTSIPK	K	R	95.00%	3.98	0.317	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216LR_PC2_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	EEPVSSGPEEAVGK	K	S	95.00%	2.99	0.437	0	1	0	0	2	1,574.60	565	578	TRUE	
SNU216LR_PC2_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.19	0.32	0	2	0	0	2	1,856.83	562	578	TRUE	
SNU216LR_PC2_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.24	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC2_01	Similar to Autoantigen protein	IPI00180404,IPI00384447,IP	30,281.10	99.80%	2	3	3	0.02%	2.52%	EMLASDDEEDVSSK	K	V	95.00%	3.3	0.558	0	1	0	0	2	1,634.61	126	139	TRUE	
SNU216LR_PC2_01	Similar to Autoantigen protein	IPI00180404,IPI00384447,IP	30,281.10	99.80%	2	3	3	0.02%	2.52%	EMLASDDEEDVSSKVEK	K	A	95.00%	3.99	0.442	0	1	1	0	2	1,990.82	126	142	TRUE	
SNU216LR_PC2_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	2	2	2	0.01%	1.05%	KISGTTALQEALK	R	E	95.00%	2.82	0.405	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216LR_PC2_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	2	2	2	0.01%	1.05%	KISGTTALQEALKEK	R	Q	95.00%	2.55	0.292	0	0	1	0	2	1,696.89	346	360	TRUE	
SNU216LR_PC2_01	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.80%	2	2	2	0.01%	6.60%	EESLVEELSPASEK	R	K	95.00%	2.59	0.309	0	1	0	0	2	1,626.71	418	431	TRUE	
SNU216LR_PC2_01	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.80%	2	2	2	0.01%	6.60%	SRLSPAGEMKPMPLSEGK	K	S	95.00%	2.68	0.203	0	0	1	0	2	1,994.94	441	458	TRUE	
SNU216LR_PC2_01	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.80%	2	2	2	0.01%	7.14%	NSNPVIAELSQAINSGTLLSKPSPPLPPKR	R	G	95.00%	3.99	0.454	0	0	0	1	2	3,205.70	269	298	TRUE	
SNU216LR_PC2_01	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.80%	2	2	2	0.01%	7.14%	RPLSSSHEASEGQAK	K	D	95.00%	2.66	0.355	0	1	0	0	2	1,663.74	173	187	TRUE	
SNU216LR_PC2_01	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	98.80%	1	1	1	0.01%	2.46%	VKEEPPSPPQSPR	R	V	95.00%	3.1	0.393	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216LR_PC2_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	2	2	2	0.01%	7.23%	KEPDDSRDEDEDEDESSEEDSEDEEPPPK	K	R	95.00%	4.61	0.468	0	0	1	0	2	3,618.19	426	454	TRUE	
SNU216LR_PC2_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	2	2	2	0.01%	7.23%	TVNSTRETPPK	R	S	95.00%	2.07	0.244	0	1	0	0	2	1,309.61	44	54	TRUE	
SNU216LR_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	6.67%	DPSASPGDAGEQAIR	R	Q	95.00%	3	0.491	0	1	0	0	2	1,550.65	286	300	TRUE	
SNU216LR_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	6.67%	GQGSSPVAMQK	R	A	95.00%	2.13	0.386	0	1	0	0	2	1,169.50	342	352	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	6.67%	MQEAMTQEVSDVFSDTTTPIK	R	L	95.00%	3.84	0.372	0	0	1	0	2	2,438.05	587	607	TRUE	
SNU216LR_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	6.67%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	4.22	0.302	0	0	1	1	2	2,657.30	709	732	TRUE	
SNU216LR_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	6.67%	SLLDASEEAIKK	K	D	95.00%	1.85	0.343	0	1	0	0	2	1,383.68	721	732	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase TAO3	IPI00410485	105,408.50	100.00%	1	2	3	0.02%	2.45%	NGPLNESQEDEEDSEHGTSLNR	R	E	95.00%	5.12	0.529	0	1	2	0	2	2,537.01	318	339	TRUE	
SNU216LR_PC2_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	DLSPTLIDNSAAK	R	Q	95.00%	2.48	0.256	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216LR_PC2_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	4.36	0.472	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC2_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	5.04	0.562	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216LR_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	6	0.04%	7.68%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	5.84	0.575	0	0	2	0	2	3,410.43	206	235	TRUE	
SNU216LR_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	6	0.04%	7.68%	GTDTQTPAVLSPSK	K	T	95.00%	3.28	0.465	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216LR_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	6	0.04%	7.68%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	4.29	0.339	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216LR_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	6	0.04%	7.68%	TNKSPEAKPLPGK	K	L	95.00%	3.36	0.417	0	1	1	0	2	1,446.74	64	76	TRUE	
SNU216LR_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.02%	4.23%	IESDEEEDFENVGK	R	V	95.00%	3.64	0.364	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216LR_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.02%	4.23%	KPDSPPKVLEPENK	K	Q	93.70%	2.89	0.188	0	0	1	0	2	1,657.82	704	717	TRUE	
SNU216LR_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.02%	4.23%	SVTPTKEFLKDEIK	K	Q	95.00%	2.7	0.183	0	0	1	0	2	1,714.87	365	378	TRUE	
SNU216LR_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.02%	4.23%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	3.89	0.292	0	0	1	0	2	2,263.14	553	571	TRUE	
SNU216LR_PC2_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	3	0.02%	6.53%	HKSDVEIPATVTAFSFEDDTVPLSPLK	R	Y	95.00%	5.27	0.538	0	0	1	0	2	3,023.47	400	426	TRUE	
SNU216LR_PC2_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	3	0.02%	6.53%	IEEVLSPEGSPSKSPSK	K	K	95.00%	2.66	0.266	0	2	0	0	2	1,850.88	636	652	TRUE	
SNU216LR_PC2_01	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	99.70%	1	1	1	0.01%	1.10%	NFYESDDDQKEK	K	T	95.00%	2.23	0.295	0	1	0	0	2	1,597.61	272	283	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4	0.372	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.45	0.553	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.86	0.4	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	8.53	0.579	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC2_01	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	4	0.02%	6.79%	EATAQKPTGSVGSTVTTPPPLVR	K	G	95.00%	3.9	0.522	0	0	1	0	2	2,374.20	173	195	TRUE	
SNU216LR_PC2_01	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	4	0.02%	6.79%	RPPSPDVIVLSDNEQPSSPR	R	V	95.00%	4.12	0.447	0	1	2	0	2	2,430.01	97	116	TRUE	
SNU216LR_PC2_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	2	2	0.01%	1.11%	SGDSGHAVAEPASPEQELDQNK	K	G	95.00%	3.94	0.425	0	1	0	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC2_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	2	2	0.01%	1.11%	TPVQYSQQQNSPQK	K	H	95.00%	3.34	0.317	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC2_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.56	0.359	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC2_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.58	0.396	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	3	4	6	0.04%	4.32%	ADSWVEKEEPAPSN	K	-	95.00%	2.7	0.329	0	1	0	0	2	1,638.67	912	925	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	3	4	6	0.04%	4.32%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	95.00%	3.66	0.292	0	0	1	0	2	3,183.23	670	695	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	3	4	6	0.04%	4.32%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	3.85	0.562	0	3	1	0	2	2,194.90	677	695	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4	0.315	0	0	1	1	2	3,599.65	366	400	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVIC	K	H	95.00%	3.93	0.469	0	0	1	2	2	4,001.82	363	400	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	TQTPPLGQTPQLGLK	R	T	92.60%	2.02	0.235	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	AEASSPVPYLSPETNPASSTSAVNHNVNLTI	K	L	85.30%	5.68	0.0168	0	0	1	0	2	3,503.64	923	955	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.01	0.565	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	4.44	0.37	0	0	2	0	2	2,290.07	266	286	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	DDISEIQSLASDHSGR	R	S	95.00%	2.73	0.254	0	1	0	0	2	1,809.77	287	302	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	IDSPGFKPASQQK	R	A	94.50%	2.29	0.194	0	1	0	0	2	1,482.70	910	922	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	4.61	0.419	0	0	0	1	2	2,165.08	346	365	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.7	0.448	0	0	1	2	2	3,651.55	111	140	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	3.63	0.224	0	0	0	1	2	3,866.70	877	909	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	SVASSQPAKPTK	R	V	93.10%	2.22	0.225	0	1	0	0	2	1,280.62	175	186	TRUE	
SNU216LR_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	11	14	0.09%	11.60%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.71	0.355	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216LR_PC2_01	DNA topoisomerase 1	IPI00413611	90,729.70	100.00%	1	1	1	0.01%	3.40%	EKENGFSSPPQIKDEPEDDGYFVPPK	K	E	93.00%	3.93	0.133	0	0	1	0	2	3,029.35	105	130	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.8	0.29	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	DNSPPPAFKPEPPK	R	A	95.00%	2.33	0.417	0	2	2	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	DSQQTLINIPSLNDSDSEIEDISEIESNR	R	S	95.00%	5.85	0.15	0	0	1	0	2	3,341.49	384	412	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	GRSIDQDYER	R	A	95.00%	2.6	0.246	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	GSYGSDAEEEEYR	R	Q	95.00%	2.77	0.438	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.8	0.269	0	1	0	1	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	KVQVAALQASPPLDQDDR	R	A	95.00%	5.53	0.508	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	RHQYSDYDYHSSSEK	R	L	95.00%	2.29	0.327	0	1	0	0	2	2,061.74	420	434	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	6	0.499	0	0	3	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	SREHPHSRSPSPEPR	R	G	95.00%	1.76	0.302	0	1	0	0	2	1,995.76	286	300	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	SRSWEDSPER	R	G	95.00%	2.58	0.287	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	SSEPVQHEESIRKPSPEPR	R	A	95.00%	3	0.172	0	0	1	0	2	2,269.06	952	970	TRUE	
SNU216LR_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	20	0.12%	15.80%	SWEDSPER	R	G	92.80%	1.68	0.228	1	0	0	0	2	1,085.39	170	177	TRUE	
SNU216LR_PC2_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	99.80%	2	3	3	0.02%	6.80%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	6.51	0.537	0	0	1	0	2	3,188.48	642	669	TRUE	
SNU216LR_PC2_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	99.80%	2	3	3	0.02%	6.80%	RSDSASSEPVGIYQGFEK	R	K	95.00%	3.66	0.366	0	1	1	0	2	2,036.90	301	318	TRUE	
SNU216LR_PC2_01	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.02%	5.28%	GLVAAYSGDSDNEEELVER	R	L	95.00%	4.74	0.484	0	2	0	0	2	2,132.90	615	633	TRUE	
SNU216LR_PC2_01	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.02%	5.28%	SEDGYHSDGDYGEHDYR	R	H	95.00%	2.87	0.373	0	0	1	0	2	2,081.71	72	88	TRUE	
SNU216LR_PC2_01	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.02%	5.28%	SEDGYHSDGDYGEHDYRHDISDER	R	E	95.00%	3.72	0.284	0	0	0	1	2	2,934.09	72	95	TRUE	
SNU216LR_PC2_01	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.02%	7.41%	KASPEPPDSAEGALK	K	L	95.00%	4.68	0.503	0	1	1	0	2	1,576.73	545	559	TRUE	
SNU216LR_PC2_01	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.02%	7.41%	RPGSVSSTDQER	K	E	93.70%	1.88	0.25	0	1	0	0	2	1,398.60	331	342	TRUE	
SNU216LR_PC2_01	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.02%	7.41%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	D	95.00%	4.99	0.355	0	0	1	0	2	3,241.49	610	641	TRUE	
SNU216LR_PC2_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.69	0.401	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC2_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.7	0.171	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216LR_PC2_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	99.80%	2	3	3	0.02%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	3.32	0.272	0	0	1	0	2	2,831.17	13	38	TRUE	
SNU216LR_PC2_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	99.80%	2	3	3	0.02%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.23	0.508	0	1	1	0	2	1,971.82	39	56	TRUE	
SNU216LR_PC2_01	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	DVPSPGGLSAPSSPR	K	N	95.00%	3.52	0.458	0	1	0	0	2	1,503.68	429	443	TRUE	
SNU216LR_PC2_01	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	RKDVPSPGGLSAPSSPR	R	N	95.00%	4.4	0.529	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216LR_PC2_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.81%	GISPVVSEHRK	K	Q	95.00%	2.44	0.32	0	0	1	0	2	1,288.64	781	791	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.81%	QNSPAGNKENIKPNETSPSFSK	R	A	86.80%	2.66	0.198	0	0	1	0	2	2,534.10	755	776	TRUE	
SNU216LR_PC2_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.81%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.16	0.509	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	EKPEEIQDPAALTSDAEQPSGFTFSFFDSDTI	K	D	88.80%	6.04	0.0127	0	0	1	0	2	3,614.57	897	928	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	EYDSGDTDEIIAMK	K	K	93.10%	2.17	0.269	0	1	0	0	2	1,666.66	249	262	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	FLETDSEEEQEEVNEK	R	K	95.00%	2.87	0.314	0	1	0	0	2	2,114.77	759	774	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.02%	5.37%	FLETDSEEEQEEVNEKK	R	T	95.00%	2.63	0.238	0	1	0	0	2	2,242.87	759	775	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC55355	IPI00301465	83,541.20	99.80%	2	2	2	0.01%	3.74%	GGPASPGGLQGLETR	R	R	95.00%	2.88	0.465	0	1	0	0	2	1,476.68	469	483	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC55355	IPI00301465	83,541.20	99.80%	2	2	2	0.01%	3.74%	SPGDPAKPASSPR	K	E	95.00%	2.18	0.222	0	1	0	0	2	1,346.61	201	213	TRUE	
SNU216LR_PC2_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	3	0.02%	4.69%	EIQNGNLHESDSESVPR	K	D	95.00%	3.09	0.23	0	1	0	0	2	1,990.85	66	82	TRUE	
SNU216LR_PC2_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	3	0.02%	4.69%	QPTPPSEAAASK	K	K	86.70%	1.93	0.209	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216LR_PC2_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	3	0.02%	4.69%	TENVFVDEPLIHATTYIPLMDNADSSPVVDI	K	E	95.00%	5	0.302	0	0	0	1	2	3,666.74	218	249	TRUE	
SNU216LR_PC2_01	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	118,452.30	100.00%	3	3	3	0.02%	7.42%	NAPLPSLQNGPNTPNKPSSPPPQQFVVQI	R	T	95.00%	3.44	0.261	0	0	0	1	2	4,154.09	832	870	TRUE	
SNU216LR_PC2_01	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	118,452.30	100.00%	3	3	3	0.02%	7.42%	SGEISLPIKEEPSPISK	K	M	95.00%	2.68	0.317	0	1	0	0	2	1,890.95	912	928	TRUE	
SNU216LR_PC2_01	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	118,452.30	100.00%	3	3	3	0.02%	7.42%	TREQLVDQGIMPPLKSPAAFHEQIK	R	S	95.00%	4.52	0.349	0	0	0	1	2	2,913.47	51	75	TRUE	
SNU216LR_PC2_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.02%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	7.27	0.575	0	0	1	1	2	3,923.85	419	453	TRUE	
SNU216LR_PC2_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.02%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.69	0.507	0	0	1	0	2	2,581.18	462	485	TRUE	
SNU216LR_PC2_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.02%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	95.00%	5.19	0.0651	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216LR_PC2_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	4.23	0.546	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC2_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.11	0.46	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC2_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	4	0.02%	3.05%	DLSRITLDAQDVLAHLVQMAFK	R	Y	95.00%	3.12	0.201	0	0	1	0	2	2,644.26	706	727	TRUE	
SNU216LR_PC2_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	4	0.02%	3.05%	SQDADSPGSSGAPENLTFK	K	E	95.00%	3.83	0.434	0	1	0	0	2	1,987.83	1784	1802	TRUE	
SNU216LR_PC2_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	4	0.02%	3.05%	SSPNVANQPPSPGGK	R	S	95.00%	3.28	0.418	0	2	0	0	2	1,516.68	1171	1185	TRUE	
SNU216LR_PC2_01	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	2	3	6	0.04%	6.22%	EMDESLANLSEDEYYSEEER	R	N	95.00%	3.67	0.266	0	1	0	0	2	2,517.95	122	141	TRUE	
SNU216LR_PC2_01	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	2	3	6	0.04%	6.22%	KLPPPPPQAPPEEENESEPEEPSGVEGAAFQ	K	L	95.00%	5.74	0.571	0	0	3	2	2	3,606.63	150	182	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	DVEDMELSDVEDDGSK	R	I	95.00%	2.95	0.455	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	3.91	0.0564	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.64	0.523	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216LR_PC2_01	Sortilin precursor	IPI00217882,IPI00745935	82,513.30	99.10%	1	1	1	0.01%	1.56%	SGYHDDSDEDLLE	K	-	82.90%	2.27	0.164	0	1	0	0	2	1,574.55	729	741	TRUE	
SNU216LR_PC2_01	septin 9	IPI00748715	63,634.10	100.00%	1	1	1	0.01%	1.94%	HVDSLSQRSPK	R	A	95.00%	1.95	0.298	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216LR_PC2_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	3	3	0.02%	3.16%	AQGEPVAGHESPK	R	I	95.00%	2.81	0.463	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216LR_PC2_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	3	3	0.02%	3.16%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.28	0.54	0	1	0	0	2	2,016.94	789	806	TRUE	
SNU216LR_PC2_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	3	3	0.02%	3.16%	EQTLSPTITSGLHNIAR	R	S	95.00%	3.81	0.292	0	0	1	0	2	1,917.94	1159	1175	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	HYEDGYPGGSDNYGSLSR	R	V	95.00%	2.79	0.333	0	0	1	0	2	2,053.79	162	179	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	LRSYEDMIGEEVPSDQYYWAPLAQHER	R	G	95.00%	5.93	0.489	0	0	1	1	2	3,362.48	264	290	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	SGDLGDMEPLK	R	G	95.00%	2.77	0.435	0	1	0	0	2	1,241.51	860	870	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	SGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.68	0.533	0	1	0	0	2	2,097.96	860	878	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	SLDNNYSTPNER	K	G	95.00%	2.88	0.257	0	1	0	0	2	1,489.60	839	850	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	SMGYDDLDYGMMSDYGTAR	R	R	95.00%	4.57	0.629	0	1	0	0	2	2,227.80	234	252	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	SQSSHSYDDSTLPLIDR	R	N	95.00%	3.34	0.395	0	2	0	0	2	2,000.86	799	815	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	TLDRSGDLGDMEPLK	R	G	95.00%	3.19	0.27	0	1	1	0	2	1,726.77	856	870	TRUE	
SNU216LR_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	9	11	12	0.07%	13.10%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.81	0.505	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC2_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	4	5	7	0.04%	5.02%	EEDFRRPSEEDFR	R	R	83.10%	2.15	0.176	0	0	1	0	2	1,791.73	584	596	TRUE	
SNU216LR_PC2_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	4	5	7	0.04%	5.02%	FPPEDFRHSPEDFR	R	R	95.00%	3.11	0.305	0	0	2	0	2	1,855.78	567	580	TRUE	
SNU216LR_PC2_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	4	5	7	0.04%	5.02%	RPSEEDFR	R	R	83.90%	1.67	0.225	0	1	0	0	2	1,115.45	589	596	TRUE	
SNU216LR_PC2_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	4	5	7	0.04%	5.02%	SRSPLGFYVHLK	R	N	95.00%	2.65	0.328	0	1	2	0	2	1,563.71	278	289	TRUE	
SNU216LR_PC2_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	99.80%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	3.99	0.406	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216LR_PC2_01	Protein deltex 3-like protein	IPI00152503	83,556.20	99.90%	2	4	4	0.02%	2.30%	EGHETPMDIDSDDSK	K	A	95.00%	3.64	0.567	0	1	1	0	2	1,755.64	522	536	TRUE	
SNU216LR_PC2_01	Protein deltex 3-like protein	IPI00152503	83,556.20	99.90%	2	4	4	0.02%	2.30%	LKEGHETPMDIDSDDSK	K	A	95.00%	3.55	0.46	0	1	1	0	2	1,996.82	520	536	TRUE	
SNU216LR_PC2_01	Full-length cDNA clone CS0DH002YN05 of T cells	IPI00184997,IPI00647106,IP	97,451.00	99.80%	2	2	2	0.01%	4.60%	MSLPLLAGGVADDITNKK	R	E	95.00%	3.39	0.194	0	0	1	0	2	2,037.01	751	769	TRUE	
SNU216LR_PC2_01	Full-length cDNA clone CS0DH002YN05 of T cells	IPI00184997,IPI00647106,IP	97,451.00	99.80%	2	2	2	0.01%	4.60%	NEMGIPQQTTSPENAGPQNTK	R	S	95.00%	2.97	0.322	0	0	1	0	2	2,322.01	679	699	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	6.32%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	5.47	0.495	0	0	1	0	2	3,418.61	1323	1355	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	6.32%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.26	0.41	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	6.32%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	3.25	0.279	0	0	1	0	2	2,609.20	816	837	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	6.32%	NSLESISSIDR	R	E	95.00%	2.22	0.349	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216LR_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	6.32%	QSPASPPPLGGGAPVR	R	T	95.00%	2.68	0.444	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC2_01	Meningioma-expressed antigen 5s splice variant	IPI00465449,IPI00477231	76,194.10	100.00%	1	2	2	0.01%	3.40%	LENEGSDEDIETDVLYSPQMALK	K	L	95.00%	5.21	0.497	0	1	1	0	2	2,676.16	359	381	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	3	3	0.02%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	6.14	0.433	0	0	1	1	2	2,780.35	101	124	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	3	3	0.02%	2.28%	SPTSPLNMK	K	L	95.00%	1.8	0.361	0	1	0	0	2	1,054.46	116	124	TRUE	
SNU216LR_PC2_01	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.90%	2	2	2	0.01%	3.70%	SSSPGKPQAVSSLNSSHSR	R	S	95.00%	4.74	0.496	0	0	1	0	2	1,992.91	178	196	TRUE	
SNU216LR_PC2_01	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.90%	2	2	2	0.01%	3.70%	VNPHKVSPASSVDSNIPSSQGYKK	K	E	95.00%	3.67	0.218	0	0	0	1	2	2,606.26	481	504	TRUE	
SNU216LR_PC2_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	1	1	1	0.01%	3.24%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	3.41	0.271	0	0	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC2_01	Acidic 82 kDa protein mRNA	IPI00290410	90,672.40	100.00%	3	3	4	0.02%	9.88%	ESYTEEIVSEAESHVSGISR	K	I	95.00%	3.1	0.211	0	0	1	0	2	2,288.99	133	152	TRUE	
SNU216LR_PC2_01	Acidic 82 kDa protein mRNA	IPI00290410	90,672.40	100.00%	3	3	4	0.02%	9.88%	GTEPSTDGETSEAESNYSVSEHHDTILR	K	V	87.70%	4.61	0.0621	0	0	1	0	2	3,128.30	78	105	TRUE	
SNU216LR_PC2_01	Acidic 82 kDa protein mRNA	IPI00290410	90,672.40	100.00%	3	3	4	0.02%	9.88%	SLTDPSQESHTEAISDAETSSSDISFSGIATR	K	R	95.00%	4.87	0.147	0	0	2	0	2	3,406.48	170	201	TRUE	
SNU216LR_PC2_01	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	99.80%	2	2	2	0.01%	3.62%	RLSEQLAHTPTAFK	R	R	95.00%	3.49	0.374	0	0	1	0	2	1,678.83	494	507	TRUE	
SNU216LR_PC2_01	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	99.80%	2	2	2	0.01%	3.62%	TASNPKVENEDEPVR	R	L	95.00%	2.67	0.29	0	1	0	0	2	1,764.78	292	306	TRUE	
SNU216LR_PC2_01	Isoform Alpha of Transcription intermediary facto	IPI00010252,IPI00221114,IP	120,539.90	99.30%	2	2	2	0.01%	5.77%	QHSNPGHAGPFPVVSVHNTTINPTSPTTAT	R	G	86.10%	4.66	0.0515	0	0	0	1	2	3,803.77	620	655	TRUE	
SNU216LR_PC2_01	Isoform Alpha of Transcription intermediary facto	IPI00010252,IPI00221114,IP	120,539.90	99.30%	2	2	2	0.01%	5.77%	TFAPLPEFEQEEDDGEVTEDSDEDFIQPR	R	R	95.00%	4.13	0.241	0	0	1	0	2	3,464.42	1068	1096	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	1.54%	KHSPSPPPPTPTESR	K	K	95.00%	4.55	0.53	0	2	2	0	2	1,774.76	326	340	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	1.54%	KHSPSPPPPTPTESRK	K	K	95.00%	3.36	0.16	0	0	1	0	2	1,902.85	326	341	TRUE	
SNU216LR_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	1.54%	RKHSPSPPPPTPTESR	K	K	95.00%	4.05	0.344	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216LR_PC2_01	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	99.80%	2	2	2	0.01%	4.70%	LEPVYSPPGSPPPGDPR	R	I	95.00%	3.12	0.362	0	1	0	0	2	1,841.85	338	354	TRUE	
SNU216LR_PC2_01	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	99.80%	2	2	2	0.01%	4.70%	SSPPLRTPDVLESSGPAVR	R	S	95.00%	2.82	0.286	0	0	1	0	2	2,045.01	675	693	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	16	0.10%	8.95%	AEEPPSQLDQDTQVQDMDEGSDDEEEGQI	K	V	95.00%	5.85	0.425	0	0	1	0	2	3,329.28	339	367	TRUE	
SNU216LR_PC2_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	16	0.10%	8.95%	EKQSDDEVYAPGLDIESSLK	R	Q	95.00%	4.7	0.457	0	1	0	0	2	2,303.03	448	467	TRUE	
SNU216LR_PC2_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	16	0.10%	8.95%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	6.04	0.44	0	2	11	1	2	2,697.03	317	338	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	ALGGEDSENEEELGDEAMMALDQSLASLF	K	L	95.00%	7.21	0.646	0	0	2	1	2	3,607.53	769	801	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.2	0.451	0	2	0	0	2	1,779.74	5	21	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.93	0.336	0	0	1	0	2	2,218.96	5	25	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	EIPSATQSPISK	K	K	95.00%	2.26	0.317	0	1	0	0	2	1,337.64	1156	1167	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	EIPSATQSPISKK	K	R	86.40%	2.17	0.172	0	1	0	0	2	1,465.73	1156	1168	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	KGVLGKSPLSALAR	K	K	92.20%	2.61	0.158	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.31	0.32	0	0	2	0	2	2,300.10	1254	1275	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.19	0.362	0	2	2	0	2	2,172.01	1255	1275	TRUE	
SNU216LR_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	9	11	16	0.10%	8.96%	SPAPGAPTRSPSTPAK	K	S	95.00%	3.28	0.477	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216LR_PC2_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	5	6	0.04%	2.55%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	3.72	0.156	0	2	1	0	2	2,077.98	64	85	TRUE	
SNU216LR_PC2_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	5	6	0.04%	2.55%	RGSQKSTDSPGADAELPESAAR	R	D	95.00%	3.43	0.327	0	1	1	0	2	2,469.97	14	35	TRUE	
SNU216LR_PC2_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	5	6	0.04%	2.55%	STDSPGADAELPESAAR	K	D	95.00%	3.42	0.474	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216LR_PC2_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	2	0.01%	3.62%	AVVVSPKEENK	R	A	95.00%	2.41	0.373	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216LR_PC2_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	2	0.01%	3.62%	KPSPQPSSPR	K	Q	95.00%	2.11	0.261	0	1	0	0	2	1,240.51	322	331	TRUE	
SNU216LR_PC2_01	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.80%	2	2	2	0.01%	6.94%	RPHTPTPGIYMGR	K	P	95.00%	2.61	0.266	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC2_01	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.80%	2	2	2	0.01%	6.94%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.65	0.248	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	11	0.07%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	3.32	0.362	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	11	0.07%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	4.14	0.49	0	3	3	0	2	2,129.88	78	96	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	11	0.07%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	3.81	0.491	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	11	0.07%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	5.15	0.534	0	0	2	0	2	2,257.97	77	96	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	11	0.07%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	5.31	0.468	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216LR_PC2_01	Probable ATP-dependent RNA helicase DDX10	IPI00297900	100,891.30	99.80%	2	3	3	0.02%	4.11%	APSLTNDEVEEFR	R	A	95.00%	2.52	0.41	0	1	0	0	2	1,586.67	537	549	TRUE	
SNU216LR_PC2_01	Probable ATP-dependent RNA helicase DDX10	IPI00297900	100,891.30	99.80%	2	3	3	0.02%	4.11%	QDNDTGNEEQEEEEDDEEEMEEK	R	L	95.00%	5.22	0.712	0	1	1	0	2	2,879.97	573	595	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	AALAPAKESPR	R	K	95.00%	2.28	0.407	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	KGAAPTPPGK	R	T	95.00%	2.73	0.484	0	1	0	0	2	1,003.50	832	841	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	KLGAGEGGEASVSPEK	K	T	95.00%	3.22	0.293	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	KLGAGEGGEASVSPEKTSTTSK	K	G	83.40%	3.61	0.0936	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	KLSGDQPAAR	R	T	82.90%	1.87	0.246	0	1	0	0	2	1,122.53	1271	1280	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	LGAGEGGEASVSPEK	K	T	95.00%	3.14	0.461	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.82	0.267	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	PTSSPAKGPPQK	K	A	95.00%	2.93	0.348	0	1	1	0	2	1,274.61	503	514	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	SAEPSANTTLVSETEEEGSVPAFGAAAK	K	P	90.00%	4.99	0.0528	0	0	1	0	2	2,830.27	160	187	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	SLGNILQAKPTSSPAK	K	G	95.00%	4.08	0.414	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.66	0.435	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	TSQVGAASAPAKESPR	K	K	95.00%	3.92	0.502	0	2	1	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	TSQVGAASAPAKESPRK	K	G	95.00%	3.66	0.46	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	19	20	0.12%	9.28%	TVANLLSGKSPR	K	K	95.00%	2.29	0.29	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC2_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	2	2	0.01%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	3.61	0.199	0	0	1	0	2	2,369.06	958	978	TRUE	
SNU216LR_PC2_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	2	2	0.01%	2.06%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	3.33	0.309	0	0	1	0	2	2,141.92	960	978	TRUE	
SNU216LR_PC2_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	7	9	0.06%	6.86%	GVPAGNSDTEGGQPGR	K	K	95.00%	3.05	0.511	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216LR_PC2_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	7	9	0.06%	6.86%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	4.75	0.415	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC2_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	7	9	0.06%	6.86%	SLSPGVSR	K	D	95.00%	1.61	0.36	0	2	0	0	2	882.4081	655	662	TRUE	
SNU216LR_PC2_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	7	9	0.06%	6.86%	SSSISEEKGDSDDEKPR	K	K	95.00%	3.59	0.317	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC2_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	7	9	0.06%	6.86%	TAQVPSPPR	R	G	95.00%	2.46	0.4	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC2_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	7	9	0.06%	6.86%	TTSPLEEEER	K	E	92.50%	2.03	0.201	0	1	0	0	2	1,270.52	363	372	TRUE	
SNU216LR_PC2_01	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	100.00%	3	4	4	0.02%	8.45%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	8.16	0.504	0	0	1	1	2	4,052.72	188	220	TRUE	
SNU216LR_PC2_01	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	100.00%	3	4	4	0.02%	8.45%	VKEEQLKNSAEEEVLSSEK	K	Q	93.70%	3.11	0.175	0	0	1	0	2	2,256.06	76	94	TRUE	
SNU216LR_PC2_01	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	100.00%	3	4	4	0.02%	8.45%	VLSRNSADDEELTNDSLTLSQSK	K	S	95.00%	3.01	0.252	0	0	1	0	2	2,602.19	275	297	TRUE	
SNU216LR_PC2_01	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	100.00%	3	3	4	0.02%	5.93%	APPAPLAASEVTNSNSAER	K	R	95.00%	4.67	0.546	0	1	0	0	2	1,961.90	172	190	TRUE	
SNU216LR_PC2_01	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	100.00%	3	3	4	0.02%	5.93%	ENYSDSEEEDDDDVASSR	R	Q	95.00%	4.27	0.687	0	2	0	0	2	2,221.70	256	273	TRUE	
SNU216LR_PC2_01	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	100.00%	3	3	4	0.02%	5.93%	VLLGFSSDESDVEASPR	K	D	95.00%	3.31	0.547	0	1	0	0	2	1,887.84	135	151	TRUE	
SNU216LR_PC2_01	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	1	2	3	0.02%	3.95%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.08	0.422	0	0	2	1	2	2,450.06	90	113	TRUE	
SNU216LR_PC2_01	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	3	3	3	0.02%	2.00%	AKPAMPQDSVPSPR	K	S	95.00%	2.73	0.152	0	1	0	0	2	1,560.72	470	483	TRUE	
SNU216LR_PC2_01	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	3	3	3	0.02%	2.00%	PAMPQDSVPSPR	K	S	95.00%	2	0.253	0	1	0	0	2	1,361.59	472	483	TRUE	
SNU216LR_PC2_01	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	3	3	3	0.02%	2.00%	TASFSESR	R	A	95.00%	1.73	0.343	0	1	0	0	2	964.3771	453	460	TRUE	
SNU216LR_PC2_01	U3 small nucleolar ribonucleoprotein protein MPF	IPI00012149	78,866.80	99.80%	2	2	2	0.01%	7.78%	KDDNDEEEEDIDFFEDIDSDEDEGGLFGSK	R	K	95.00%	6.44	0.597	0	0	1	0	2	3,533.34	224	253	TRUE	
SNU216LR_PC2_01	U3 small nucleolar ribonucleoprotein protein MPF	IPI00012149	78,866.80	99.80%	2	2	2	0.01%	7.78%	SPVFSDEDSDLDFDISKLEQQSK	K	V	95.00%	3.99	0.437	0	0	1	0	2	2,789.15	163	185	TRUE	
SNU216LR_PC2_01	Alpha-taxilin	IPI00470779	61,891.20	99.90%	2	3	3	0.02%	9.16%	RPEGPGAQAPSSPR	R	V	95.00%	3.1	0.315	0	1	1	0	2	1,486.68	504	517	TRUE	
SNU216LR_PC2_01	Alpha-taxilin	IPI00470779	61,891.20	99.90%	2	3	3	0.02%	9.16%	SSPGQPEAGPEGAQERPSQAAPAVEAEGPC	K	K	95.00%	4.34	0.465	0	0	1	0	2	3,564.60	18	53	TRUE	
SNU216LR_PC2_01	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	99.80%	1	1	1	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	2.66	0.278	0	0	1	0	2	1,851.90	937	951	TRUE	
SNU216LR_PC2_01	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	100.00%	4	4	5	0.03%	6.20%	APSIDGKEELDLAEK	K	M	95.00%	2.51	0.332	0	1	0	0	2	1,694.79	458	472	TRUE	
SNU216LR_PC2_01	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	100.00%	4	4	5	0.03%	6.20%	ATPPPSPLLSELLK	K	K	88.80%	1.93	0.227	0	1	0	0	2	1,542.82	263	276	TRUE	
SNU216LR_PC2_01	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	100.00%	4	4	5	0.03%	6.20%	ATPPPSPLLSELLKK	K	G	95.00%	3.65	0.4	0	0	2	0	2	1,670.91	263	277	TRUE	
SNU216LR_PC2_01	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	100.00%	4	4	5	0.03%	6.20%	TEASPESMLSPSHGSNPIEDPLEAETQHK	K	F	95.00%	5.28	0.0638	0	0	1	0	2	3,198.39	649	677	TRUE	
SNU216LR_PC2_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.02%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	2.9	0.334	0	1	0	0	2	2,279.96	480	500	TRUE	
SNU216LR_PC2_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.02%	8.20%	DTEGGPKEEESPV	K	-	95.00%	2.21	0.284	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216LR_PC2_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.02%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	2.8	0.276	0	0	1	0	2	1,925.87	463	479	TRUE	
SNU216LR_PC2_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.02%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4.12	0.342	0	0	1	0	2	2,270.04	460	479	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	5.38%	EQSTPPKSPQ	R	-	93.60%	1.6	0.315	0	1	0	0	2	1,258.48	734	743	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	5.38%	RPAGGRPSPSAMGK	R	R	95.00%	3.21	0.456	0	1	0	0	2	1,448.68	716	729	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	5.38%	SPSPAHLPDDPKVAEK	R	Q	95.00%	4.13	0.42	0	0	1	0	2	1,767.83	604	619	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	3	4	0.02%	10.40%	LPLVPESPRR	R	M	95.00%	2.1	0.24	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	3	4	0.02%	10.40%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.23	0.49	0	0	1	0	2	2,008.94	381	399	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	3	4	0.02%	10.40%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.43	0.416	0	0	2	0	2	2,455.11	329	351	TRUE	
SNU216LR_PC2_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	99.80%	2	2	2	0.01%	4.62%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	4.53	0.517	0	0	1	0	2	2,585.34	199	222	TRUE	
SNU216LR_PC2_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	99.80%	2	2	2	0.01%	4.62%	SASQSSLDKLDQELKEQQK	R	E	95.00%	3.85	0.273	0	0	1	0	2	2,242.06	714	732	TRUE	
SNU216LR_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	9	0.06%	12.80%	AASEQQADTSGGDSPK	K	D	95.00%	2.92	0.493	0	2	0	0	2	1,708.61	123	138	TRUE	
SNU216LR_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	9	0.06%	12.80%	EEAPASPLRPLYPQISPLK	K	I	95.00%	3.18	0.319	0	0	1	0	2	2,266.09	45	63	TRUE	
SNU216LR_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	9	0.06%	12.80%	EGSPIPHDPEFGSK	R	L	95.00%	2.02	0.348	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	9	0.06%	12.80%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	3.73	0.321	0	0	1	1	2	3,303.72	36	63	TRUE	
SNU216LR_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	9	0.06%	12.80%	SAPASPTHPGLMSPR	R	S	95.00%	2.65	0.451	0	2	0	0	2	1,585.72	253	267	TRUE	
SNU216LR_PC2_01	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	98.80%	1	1	1	0.01%	3.05%	GGSPQMDDIKVFQNEVLGTLQR	R	G	95.00%	3.35	0.37	0	0	1	0	2	2,512.19	542	563	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	4	6	8	0.05%	10.00%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.17	0.474	0	0	3	1	2	3,586.35	475	504	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	4	6	8	0.05%	10.00%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	5.52	0.465	0	1	1	0	2	2,869.29	505	528	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	4	6	8	0.05%	10.00%	VAQGATEKSPEDK	K	V	95.00%	3.13	0.289	0	1	0	0	2	1,439.64	445	457	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	4	6	8	0.05%	10.00%	VAQGATEKSPEDKVQIAANEETQER	K	E	95.00%	3.36	0.258	0	0	1	0	2	2,808.31	445	469	TRUE	
SNU216LR_PC2_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	3	3	3	0.02%	3.21%	DVRNSDMHLLDLESMGK	K	S	91.50%	3.39	0.11	0	0	1	0	2	2,039.89	284	300	TRUE	
SNU216LR_PC2_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	3	3	3	0.02%	3.21%	EVLDEDTDEEKETLK	K	N	95.00%	4.1	0.394	0	1	0	0	2	1,872.80	918	932	TRUE	
SNU216LR_PC2_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	3	3	3	0.02%	3.21%	NSDMHLLDLESMGK	R	S	95.00%	2.99	0.349	0	1	0	0	2	1,669.70	287	300	TRUE	
SNU216LR_PC2_01	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEK	R	N	95.00%	4.88	0.501	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216LR_PC2_01	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEKNETEPPK	R	G	95.00%	6.59	0.394	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216LR_PC2_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	2	2	0.01%	9.17%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	2.75	0.292	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC2_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	2	2	0.01%	9.17%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.75	0.413	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC2_01	Junctophilin-1	IPI00173461	71,686.10	99.80%	2	2	2	0.01%	4.24%	HSHSPASSPKPLKK	K	Q	95.00%	2.92	0.187	0	0	1	0	2	1,660.76	472	485	TRUE	
SNU216LR_PC2_01	Junctophilin-1	IPI00173461	71,686.10	99.80%	2	2	2	0.01%	4.24%	KGTTPPRSPEASPK	R	H	95.00%	2.57	0.276	0	1	0	0	2	1,692.68	458	471	TRUE	
SNU216LR_PC2_01	COPA protein	IPI00646493	139,327.40	100.00%	1	1	1	0.01%	0.97%	NLSPGAVESDVR	K	G	95.00%	2.72	0.426	0	1	0	0	2	1,323.59	171	182	TRUE	
SNU216LR_PC2_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	5.83%	DYDDMSPR	R	R	85.40%	1.54	0.216	1	0	0	0	2	1,078.35	279	286	TRUE	
SNU216LR_PC2_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	5.83%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.17	0.185	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC2_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.92%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	3.86	0.417	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216LR_PC2_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.92%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	95.00%	6.12	0.0467	0	0	1	1	2	3,783.64	362	396	TRUE	
SNU216LR_PC2_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.92%	WRPHSPDGPR	R	S	94.10%	2.27	0.212	0	1	0	0	2	1,284.56	232	241	TRUE	
SNU216LR_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	5	7	10	0.06%	4.25%	DSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.15	0.395	0	0	1	0	2	2,442.04	187	207	TRUE	
SNU216LR_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	5	7	10	0.06%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.16	0.422	0	1	1	4	2	2,598.14	186	207	TRUE	
SNU216LR_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	5	7	10	0.06%	4.25%	SYSPDGK	R	E	86.80%	1.21	0.359	1	0	0	0	2	833.3078	596	602	TRUE	
SNU216LR_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	5	7	10	0.06%	4.25%	SYSPDGKESPSDK	R	K	95.00%	2.49	0.386	0	1	0	0	2	1,476.59	596	608	TRUE	
SNU216LR_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	5	7	10	0.06%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.83	0.336	0	1	0	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC2_01	Drebrin	IPI00003406,IPI00295624	71,293.30	99.90%	1	1	1	0.01%	4.17%	MAPTPIPTRSPSDSSTASTPVAEQIER	R	A	81.30%	5.84	0.0042	0	0	1	0	2	2,906.36	327	353	TRUE	
SNU216LR_PC2_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	4	4	4	0.02%	10.20%	AQQQEEQGSVNDVKEEEKEEK	K	E	95.00%	4.09	0.233	0	0	1	0	2	2,541.10	552	572	TRUE	
SNU216LR_PC2_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	4	4	4	0.02%	10.20%	GALQGSAWQVSSEDVR	R	W	83.90%	2	0.201	0	0	1	0	2	1,769.79	631	646	TRUE	
SNU216LR_PC2_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	4	4	4	0.02%	10.20%	MEVGPFSTGQESPTAENAR	R	L	84.10%	2.74	0.155	0	0	1	0	2	2,087.87	606	624	TRUE	
SNU216LR_PC2_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	4	4	4	0.02%	10.20%	STESDVKADGDSK	K	G	93.60%	2.72	0.127	0	1	0	0	2	1,418.57	235	247	TRUE	
SNU216LR_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	5	8	11	0.07%	9.69%	DSSKGEDSAEETEAK	R	P	95.00%	3.35	0.433	0	1	0	0	2	1,662.64	475	489	TRUE	
SNU216LR_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	5	8	11	0.07%	9.69%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	6.42	0.523	0	0	1	1	2	4,118.93	479	519	TRUE	
SNU216LR_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	5	8	11	0.07%	9.69%	GSSEQAESDNMDVPPEDDSKEGAGEQK	K	T	95.00%	4.23	0.325	0	0	1	0	2	2,916.14	55	81	TRUE	
SNU216LR_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	5	8	11	0.07%	9.69%	PMEEDGEEKSPSKK	R	K	95.00%	2.3	0.253	0	1	0	0	2	1,670.70	373	386	TRUE	
SNU216LR_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	5	8	11	0.07%	9.69%	RPMEEDGEEKSPSK	K	K	95.00%	4.41	0.46	0	2	3	1	2	1,698.70	372	385	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.43	0.359	0	0	1	0	2	2,259.04	1316	1334	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.49	0.494	0	0	2	1	2	2,136.83	433	451	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.63	0.46	0	0	2	0	2	2,932.38	374	401	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	QGSITSPQANEQSVTPQRR	R	S	95.00%	2.82	0.257	0	0	1	0	2	2,164.01	852	870	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	QPSSPYEDKDKDK	K	K	95.00%	2.63	0.241	0	0	1	0	2	1,616.68	330	342	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	SGSSQELDVKPSASPQER	K	S	95.00%	2.73	0.41	0	1	0	0	2	2,061.85	1539	1556	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	THTTALAGRSPSPASGR	K	R	95.00%	2.62	0.285	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216LR_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	8	9	11	0.07%	5.38%	VKAQTPPGPSLSGSK	K	S	95.00%	3.14	0.306	0	0	1	0	2	1,533.77	999	1013	TRUE	
SNU216LR_PC2_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	4	0.02%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	3.39	0.47	0	2	0	0	2	1,811.70	491	505	TRUE	
SNU216LR_PC2_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	4	0.02%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.81	0.332	0	0	2	0	2	2,744.13	491	513	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC55215	IPI00019447,IPI00477345	142,574.60	100.00%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	2.25	0.355	0	1	0	0	2	1,170.54	403	412	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase SRPK2	IPI00333420,IPI00396412	79,030.50	99.80%	1	1	1	0.01%	1.74%	TVSASSTGDLPK	R	A	95.00%	2.54	0.294	0	1	0	0	2	1,242.56	503	514	TRUE	
SNU216LR_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	5.24%	RISHSLYSGIEGLDESPSR	R	N	95.00%	3.97	0.348	0	0	1	0	2	2,183.01	713	731	TRUE	
SNU216LR_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	5.24%	RSSDPALIGLSTSVSDSNFSSEEPSR	R	K	89.30%	6.36	0.0041	0	0	1	0	2	2,805.26	142	167	TRUE	
SNU216LR_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	5.24%	SSSLESLQTAVAEVTLNGDIPFHRPR	K	P	87.30%	3.7	0.104	0	0	1	0	2	2,904.43	884	909	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	3	3	0.02%	5.21%	GPQGPGGGGINVQEILTSIMGSPNSHPSEEI	K	Q	95.00%	7.03	0.076	0	0	1	0	2	3,380.62	570	602	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	3	3	0.02%	5.21%	KVLSPTAAKPSPFEGK	K	T	95.00%	3.16	0.463	0	0	1	0	2	1,736.90	310	325	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	3	3	0.02%	5.21%	VLSPTAAKPSPFEGK	K	T	95.00%	2.41	0.332	0	1	0	0	2	1,608.80	311	325	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC6936	IPI00418340	89,387.70	99.80%	2	2	2	0.01%	2.18%	RESEDDPESEPDDHEK	K	R	95.00%	2.34	0.484	0	1	0	0	2	2,073.70	172	187	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC6936	IPI00418340	89,387.70	99.80%	2	2	2	0.01%	2.18%	RESEDDPESEPDDHEKR	K	I	95.00%	2.64	0.178	0	0	1	0	2	2,229.80	172	188	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.06	0.561	0	1	1	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	AEQGSEEEGEGEEEEEEGGESKADDPYAHL	K	K	95.00%	4.56	0.53	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.96	0.571	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	KAEQGSEEEGEGEEEEEEGGESKADDPYAH	K	K	95.00%	5.59	0.519	0	0	1	1	2	3,659.47	224	256	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	KLSVPTSDEEDEVPAPK	K	P	95.00%	3.22	0.235	0	1	0	0	2	2,080.82	104	120	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	5.09	0.549	0	3	2	0	2	2,174.04	104	122	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	LSVPTSDEEDEVPAPK	K	P	95.00%	3.03	0.346	0	2	0	0	2	1,872.76	105	120	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	3.96	0.417	0	1	3	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.12%	8.51%	QQPPEPEWIGDGESTSPSDK	K	V	95.00%	2.93	0.328	0	1	0	0	2	2,263.94	7	26	TRUE	
SNU216LR_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	9.94%	AGLESGAEPGDGDSDTTK	K	K	95.00%	4.05	0.494	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	9.94%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.19	0.363	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	9.94%	AGLESGAEPGDGDSDTTKKK	K	K	79.70%	3.03	0.192	0	0	1	0	2	2,042.89	480	499	TRUE	
SNU216LR_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	9.94%	EVELVSE	K	-	95.00%	1.94	0.29	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216LR_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	9.94%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	4.57	0.476	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	9.94%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.64	0.381	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC2_01	Ubinuclein	IPI00099834	121,543.40	99.40%	2	2	2	0.01%	3.62%	ELPSQASGGLANPPPVNLEDSLDEDLIR	R	N	95.00%	4.55	0.403	0	0	1	0	2	3,026.44	640	667	TRUE	
SNU216LR_PC2_01	Ubinuclein	IPI00099834	121,543.40	99.40%	2	2	2	0.01%	3.62%	QASESEDDFIKEK	R	K	87.60%	2.12	0.185	0	1	0	0	2	1,685.63	171	183	TRUE	
SNU216LR_PC2_01	E-cadherin	IPI00000513,IPI00025861,IP	90,943.50	100.00%	1	1	1	0.01%	1.46%	NDVAPTLMSVPR	R	Y	95.00%	2.27	0.208	0	1	0	0	2	1,379.64	724	735	TRUE	
SNU216LR_PC2_01	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	DVHAASSPGMGGAAASWAGWAVTGVSSI	K	L	95.00%	5.14	0.634	0	0	1	0	2	2,996.36	553	583	TRUE	
SNU216LR_PC2_01	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	PSTQPRPDSWGEDNWEGLETDSR	R	Q	95.00%	5.29	0.431	0	1	1	0	2	2,739.13	746	768	TRUE	
SNU216LR_PC2_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	4	4	4	0.02%	6.01%	AGAESPTMSVDGR	R	Q	95.00%	2.66	0.421	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216LR_PC2_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	4	4	4	0.02%	6.01%	GEGGSEDGSEDGLPEGIHLDKNDDGGK	R	I	95.00%	3.38	0.421	0	0	1	0	2	2,844.09	437	463	TRUE	
SNU216LR_PC2_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	4	4	4	0.02%	6.01%	RAGAESPTMSVDGR	R	Q	95.00%	2.5	0.386	0	1	0	0	2	1,513.65	402	415	TRUE	
SNU216LR_PC2_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	4	4	4	0.02%	6.01%	TKADVTPPPDGSTTHNLEVSPK	R	E	95.00%	5.16	0.422	0	0	1	0	2	2,371.12	643	664	TRUE	
SNU216LR_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	11	0.07%	5.81%	AGAGMITQHSSNASPINR	R	I	95.00%	3.36	0.317	0	1	0	0	2	1,891.85	989	1006	TRUE	
SNU216LR_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	11	0.07%	5.81%	DGQDAIAQSPEK	K	E	95.00%	2.91	0.375	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216LR_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	11	0.07%	5.81%	DGQDAIAQSPEKESK	K	D	95.00%	3.98	0.439	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	11	0.07%	5.81%	DGQDAIAQSPEKESKDYEMNANHK	K	D	95.00%	5.62	0.411	0	0	0	1	2	2,785.18	281	304	TRUE	
SNU216LR_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	11	0.07%	5.81%	ISSKSPGHMVILDQTK	R	G	95.00%	4.92	0.535	0	1	1	0	2	1,820.90	549	564	TRUE	
SNU216LR_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	11	0.07%	5.81%	RISSKSPGHMVILDQTK	K	G	95.00%	3.33	0.382	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216LR_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	11	0.07%	5.81%	SPGHMVILDQTK	K	G	95.00%	2.57	0.274	0	1	1	0	2	1,405.65	553	564	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	4	4	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	6.14	0.641	0	0	1	1	2	3,222.36	68	95	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	4	4	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.02	0.531	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	3.56	0.41	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	4.56	0.432	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216LR_PC2_01	GYS1 protein	IPI00157144,IPI00303868	83,787.10	98.70%	1	2	4	0.02%	2.08%	HSSPHQSEDEEDPR	R	N	95.00%	2.4	0.503	0	1	3	0	2	1,889.58	651	664	TRUE	
SNU216LR_PC2_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	5.85%	RYEDDGISDDEIEGKR	R	T	95.00%	2.77	0.293	0	0	1	0	2	1,976.82	21	36	TRUE	
SNU216LR_PC2_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	5.85%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.12	0.357	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC2_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	5.85%	TPQRGDEEGLGGEEEEEEEEEEEDDSAEEGC	R	L	95.00%	8.06	0.689	0	0	1	0	2	3,773.42	844	877	TRUE	
SNU216LR_PC2_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	5.85%	YEDDGISDDEIEGKR	R	T	95.00%	2.91	0.419	0	1	0	0	2	1,820.72	22	36	TRUE	
SNU216LR_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	9	0.06%	5.09%	DSSFTEVPRSPK	R	H	95.00%	3.15	0.404	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216LR_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	9	0.06%	5.09%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.49	0.391	0	1	2	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	9	0.06%	5.09%	SPSFGDPQLSPEAR	R	P	95.00%	2.37	0.24	0	1	0	0	2	1,647.65	261	274	TRUE	
SNU216LR_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	9	0.06%	5.09%	SPSFGDPQLSPEARPR	R	C	95.00%	2.78	0.241	0	0	1	0	2	1,900.80	261	276	TRUE	
SNU216LR_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	9	0.06%	5.09%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	5.05	0.528	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216LR_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	9	0.06%	5.09%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.16	0.266	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216LR_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	9	0.06%	5.09%	YGSFEEAEASYPILNR	K	A	95.00%	3.4	0.116	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	5	9	10	0.06%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	4.19	0.432	0	2	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	5	9	10	0.06%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	4.02	0.253	0	1	1	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	5	9	10	0.06%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.53	0.39	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	5	9	10	0.06%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	3.55	0.414	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	5	9	10	0.06%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	4.36	0.368	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216LR_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	6	8	10	0.06%	6.77%	ESSTSEGADQKMSSPEDDSDTKR	K	L	79.70%	3.54	0.0016	0	1	0	0	2	2,646.98	371	393	TRUE	
SNU216LR_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	6	8	10	0.06%	6.77%	MSSPEDDSDTKR	K	L	95.00%	2.21	0.402	0	3	0	0	2	1,527.51	382	393	TRUE	
SNU216LR_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	6	8	10	0.06%	6.77%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	95.00%	4.51	0.221	0	0	1	0	2	2,928.28	227	252	TRUE	IPI00005648
SNU216LR_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	6	8	10	0.06%	6.77%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.62	0.512	0	0	1	1	2	3,056.37	227	253	TRUE	IPI00005648
SNU216LR_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	6	8	10	0.06%	6.77%	SVVSFDKVK	R	E	95.00%	2.02	0.308	0	1	0	0	2	1,088.54	601	609	TRUE	
SNU216LR_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	6	8	10	0.06%	6.77%	SVVSFDKVKEPR	R	K	95.00%	2.34	0.341	0	1	1	0	2	1,470.74	601	612	TRUE	
SNU216LR_PC2_01	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.89	0.32	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216LR_PC2_01	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	6.48	0.623	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216LR_PC2_01	Metastasis-associated protein MTA2	IPI00171798	75,025.10	99.80%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	95.00%	4.58	0.147	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216LR_PC2_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	1	1	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.44	0.31	0	0	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC2_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	4	4	4	0.02%	15.00%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	4.34	0.518	0	0	1	0	2	2,786.98	127	147	TRUE	
SNU216LR_PC2_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	4	4	4	0.02%	15.00%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	3.02	0.28	0	0	1	0	2	2,722.03	44	64	TRUE	
SNU216LR_PC2_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	4	4	4	0.02%	15.00%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	3.75	0.412	0	0	1	0	2	2,850.13	44	65	TRUE	
SNU216LR_PC2_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	4	4	4	0.02%	15.00%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	4.65	0.464	0	0	1	0	2	2,721.11	258	280	TRUE	
SNU216LR_PC2_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	1	1	1	0.01%	1.50%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	3.82	0.246	0	0	1	0	2	2,623.30	1073	1096	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	5	5	5	0.03%	3.69%	MPIEDSSPEKGREEAASK	R	G	92.80%	3.26	0.156	0	0	1	0	2	2,040.89	1190	1207	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	5	5	5	0.03%	3.69%	QDILTQESRK	R	T	95.00%	2.31	0.245	0	1	0	0	2	1,297.62	1357	1366	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	5	5	5	0.03%	3.69%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	4.38	0.445	0	0	1	0	2	2,989.46	206	231	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	5	5	5	0.03%	3.69%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	5.32	0.555	0	0	1	0	2	2,522.20	2140	2161	TRUE	
SNU216LR_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	5	5	5	0.03%	3.69%	SPGSISYLPSFFTK	R	L	95.00%	2.56	0.234	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216LR_PC2_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	9.79%	ASSHSSQTQGGGSVTK	R	K	82.30%	3.5	0.0115	0	1	0	0	2	1,678.65	402	417	TRUE	
SNU216LR_PC2_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	9.79%	LRLSPSPTSQR	R	S	95.00%	1.92	0.266	0	1	0	0	2	1,401.63	387	397	TRUE	
SNU216LR_PC2_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	9.79%	NKSNEDQSMGNWQIK	R	R	95.00%	3.88	0.413	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216LR_PC2_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	9.79%	SGAQASSTPLSPTR	R	I	95.00%	3.07	0.188	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216LR_PC2_01	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	100.00%	2	2	2	0.01%	2.34%	ELSDLEEENR	K	V	95.00%	2.47	0.312	0	1	0	0	2	1,313.53	158	167	TRUE	
SNU216LR_PC2_01	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	100.00%	2	2	2	0.01%	2.34%	SVSSPTSSNTPTPTK	K	H	95.00%	3.17	0.435	0	1	0	0	2	1,570.70	50	64	TRUE	
SNU216LR_PC2_01	Dynamin-1	IPI00413140,IPI00514850,IP	97,410.80	99.80%	2	3	4	0.02%	1.27%	RSPTSSPTPQR	R	R	95.00%	3.09	0.391	0	2	0	0	2	1,293.59	773	783	TRUE	
SNU216LR_PC2_01	Dynamin-1	IPI00413140,IPI00514850,IP	97,410.80	99.80%	2	3	4	0.02%	1.27%	SPTSSPTPQR	R	R	95.00%	1.89	0.352	1	1	0	0	2	1,137.49	774	783	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	AEDGATPSPSNETPK	K	K	95.00%	3.77	0.447	0	2	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	AEDGATPSPSNETPKK	K	K	95.00%	3.41	0.403	0	2	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	AEDGATPSPSNETPKKK	K	K	95.00%	3.28	0.422	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	95.00%	5.82	0.55	0	0	3	0	2	2,995.27	105	136	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	5.42	0.372	0	0	1	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.13	0.375	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	5.31	0.543	0	0	1	1	2	2,899.33	11	39	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.8	0.468	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	12	16	0.10%	39.90%	TAAKGEAAAERPGEAAVASSPSK	K	A	95.00%	3.57	0.282	0	0	1	0	2	2,236.06	7	29	TRUE	
SNU216LR_PC2_01	Isoform 1 of Zinc phosphodiesterase ELAC protei	IPI00396627	92,219.50	99.80%	1	1	1	0.01%	2.42%	SSDSESNENEPHLPHGVSQR	R	R	95.00%	3.74	0.29	0	0	1	0	2	2,285.94	212	231	TRUE	
SNU216LR_PC2_01	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	1	1	1	0.01%	1.78%	TSSAFVGKTPEASPEPK	K	D	95.00%	3.37	0.433	0	0	1	0	2	1,892.81	303	319	TRUE	
SNU216LR_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	5	5	0.03%	10.40%	DRSSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.88	0.433	0	0	1	0	2	2,755.34	361	384	TRUE	
SNU216LR_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	5	5	0.03%	10.40%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	4.8	0.512	0	1	0	0	2	2,253.98	444	462	TRUE	
SNU216LR_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	5	5	0.03%	10.40%	SNPKSPQKPIVR	R	V	95.00%	3.53	0.489	0	0	1	0	2	1,430.75	147	158	TRUE	
SNU216LR_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	5	5	0.03%	10.40%	SRWSGSHQFEQLSGSILWMAPEVIR	K	M	95.00%	6.6	0.526	0	0	1	0	2	2,981.41	602	626	TRUE	
SNU216LR_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	5	5	0.03%	10.40%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.73	0.334	0	0	1	0	2	2,484.21	363	384	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.02%	8.48%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	4.82	0.433	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.02%	8.48%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	5.39	0.377	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216LR_PC2_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.02%	8.48%	TTQSMQDFPVVDSEEEAEEEFQK	R	E	95.00%	5.18	0.484	0	1	1	0	2	2,783.13	198	220	TRUE	
SNU216LR_PC2_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.80%	2	2	2	0.01%	2.39%	VASPSQGQVGSSSPKR	R	S	95.00%	3.7	0.326	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216LR_PC2_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.80%	2	2	2	0.01%	2.39%	VGSPLTLTDAQTR	R	V	95.00%	2.5	0.433	0	1	0	0	2	1,438.69	312	324	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	4.11	0.407	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	2.8	0.238	0	0	1	0	2	2,359.11	279	299	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	5.43	0.476	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	4.11	0.429	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	MEVDRSPGLPMSDLK	R	T	95.00%	3.18	0.259	0	1	1	0	2	1,754.79	614	628	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	SKSLKEGLTVQER	R	L	95.00%	2.73	0.48	0	0	1	0	2	1,554.79	1014	1026	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	SKSNPDFLK	K	K	86.50%	2.11	0.149	0	1	0	0	2	1,115.51	991	999	TRUE	
SNU216LR_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	9	0.06%	10.10%	SPGLPMSDLK	R	T	95.00%	2.07	0.36	0	1	0	0	2	1,124.51	619	628	TRUE	
SNU216LR_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	25	0.16%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	95.00%	3.88	0.368	0	1	0	0	2	2,486.00	175	197	TRUE	
SNU216LR_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	25	0.16%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.86	0.427	0	1	0	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	25	0.16%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.73	0.43	0	1	2	1	2	2,704.03	152	174	TRUE	
SNU216LR_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	25	0.16%	11.00%	SGDETPGSEVPGDK	R	A	82.80%	1.85	0.221	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	25	0.16%	11.00%	SKSPLPPEEEAK	R	D	83.70%	2.06	0.194	0	1	0	0	2	1,391.65	226	237	TRUE	
SNU216LR_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	25	0.16%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.46	0.537	0	0	1	16	2	4,198.92	226	261	TRUE	
SNU216LR_PC2_01	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	99.80%	1	1	2	0.01%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.44	0.449	0	2	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC2_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	1.66%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	2.69	0.252	0	0	1	0	2	2,327.88	548	567	TRUE	
SNU216LR_PC2_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	1.66%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	3.28	0.264	0	0	1	0	2	2,563.19	145	166	TRUE	
SNU216LR_PC2_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	99.80%	2	2	2	0.01%	5.14%	NSGSSQGLGGSPGSHSHTTMANK	K	V	95.00%	4	0.397	0	0	1	0	2	2,278.95	165	187	TRUE	
SNU216LR_PC2_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	99.80%	2	2	2	0.01%	5.14%	TESEVPPRPASPK	R	V	95.00%	3.03	0.43	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 1	IPI00304379	88,209.30	99.80%	2	2	2	0.01%	5.86%	KATSDTLESPPKIIPK	R	Y	95.00%	2.98	0.175	0	0	1	0	2	1,804.95	305	320	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 1	IPI00304379	88,209.30	99.80%	2	2	2	0.01%	5.86%	REDFQDISVPVQEDELSKVEESSEISPEPK	R	T	95.00%	5.35	0.397	0	0	1	0	2	3,525.62	450	479	TRUE	
SNU216LR_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	9	0.06%	14.90%	ETSVSKEDTDHEEK	K	A	95.00%	3.37	0.428	0	2	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	9	0.06%	14.90%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	4.15	0.331	0	0	0	1	2	2,558.08	114	135	TRUE	
SNU216LR_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	9	0.06%	14.90%	QSNASSDVEVEEK	K	E	95.00%	3.31	0.401	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216LR_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	9	0.06%	14.90%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	4.33	0.308	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	9	0.06%	14.90%	QVETEEAGVVTTATASVNLKVSPK	K	R	95.00%	6.52	0.0595	0	0	1	0	2	2,538.27	156	179	TRUE	
SNU216LR_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	9	0.06%	14.90%	TGVTSTSDSEEEGDDQEGEK	K	K	91.80%	3.91	0.0115	0	2	0	0	2	2,259.77	267	286	TRUE	
SNU216LR_PC2_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	HEHPPNPPVSPGK	R	T	95.00%	2.67	0.267	0	0	1	0	2	1,472.67	664	676	TRUE	
SNU216LR_PC2_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	MESSFGSPSKQESSESLPK	K	E	91.90%	3.33	0.134	0	0	1	0	2	2,121.90	471	489	TRUE	
SNU216LR_PC2_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	RHEHPPNPPVSPGK	K	T	95.00%	2.52	0.228	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216LR_PC2_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	SKSEDMDNVQSK	R	R	95.00%	2.62	0.333	0	1	0	0	2	1,447.58	557	568	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	6	9	19	0.12%	5.94%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.15	0.309	0	2	5	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	6	9	19	0.12%	5.94%	KRSEDESETEDEEEK	K	S	95.00%	2.33	0.397	0	2	0	0	2	2,079.67	666	680	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	6	9	19	0.12%	5.94%	RSEDESETEDEEEK	K	S	95.00%	3.92	0.401	0	2	0	0	2	1,791.64	667	680	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	6	9	19	0.12%	5.94%	SEDESETEDEEEK	R	S	95.00%	2.42	0.499	0	2	0	0	2	1,715.51	668	680	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	6	9	19	0.12%	5.94%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.22	0.513	0	1	1	0	2	2,607.96	668	688	TRUE	
SNU216LR_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	6	9	19	0.12%	5.94%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	4.46	0.54	0	0	3	1	2	2,764.06	668	689	TRUE	
SNU216LR_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	4	5	5	0.03%	7.52%	AAKPGPAEAPSPTASPSGDASPPATAPYDPI	R	V	89.40%	4.24	0.0827	0	0	1	0	2	3,011.38	1094	1124	TRUE	
SNU216LR_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	4	5	5	0.03%	7.52%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.66	0.385	0	0	1	1	2	2,672.22	157	179	TRUE	
SNU216LR_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	4	5	5	0.03%	7.52%	QDRENEEGDTGNWYSSDEDEGGSSVTSILK	K	T	95.00%	5.93	0.0849	0	0	1	0	2	3,464.33	793	822	TRUE	
SNU216LR_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	4	5	5	0.03%	7.52%	TGSGSPFAGNSPAR	K	E	95.00%	2.53	0.366	0	1	0	0	2	1,385.58	1265	1278	TRUE	
SNU216LR_PC2_01	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.80%	2	3	3	0.02%	2.10%	AESLDDQMLSR	R	E	95.00%	2.62	0.344	0	1	0	0	2	1,344.55	719	729	TRUE	
SNU216LR_PC2_01	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.80%	2	3	3	0.02%	2.10%	SLDEADSENKEEVSPLGSK	R	A	95.00%	3.1	0.369	0	1	1	0	2	2,113.92	1197	1215	TRUE	
SNU216LR_PC2_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	4	5	0.03%	7.50%	EPTPSIASDISLPIATQELR	K	Q	95.00%	4.22	0.488	0	2	1	0	2	2,218.10	723	742	TRUE	
SNU216LR_PC2_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	4	5	0.03%	7.50%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	94.00%	5.29	0.047	0	0	0	1	2	3,133.36	660	691	TRUE	
SNU216LR_PC2_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	4	5	0.03%	7.50%	SSSSLLASPGHISVK	R	E	95.00%	2.55	0.291	0	1	0	0	2	1,629.73	708	722	TRUE	
SNU216LR_PC2_01	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	DGLLSPGAWNGEPSGEGSR	K	S	95.00%	3.03	0.394	0	1	0	0	2	1,965.83	504	522	TRUE	
SNU216LR_PC2_01	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	ETPRPEGGSPSPAGTPPQPK	R	R	95.00%	3.68	0.426	0	1	1	0	2	2,066.95	476	495	TRUE	
SNU216LR_PC2_01	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	GAGAAGLPQPPRESPQLHER	R	E	95.00%	3.59	0.328	0	1	1	2	2	2,148.03	456	475	TRUE	
SNU216LR_PC2_01	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	QSVPYGMAVVVRSPLR	R	T	95.00%	2.55	0.262	0	0	1	0	2	1,838.93	145	160	TRUE	
SNU216LR_PC2_01	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	6	12	0.07%	11.60%	AAPEASSPPASPLQHLLPGK	K	A	95.00%	3.54	0.335	0	2	1	0	2	2,048.02	686	705	TRUE	
SNU216LR_PC2_01	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	6	12	0.07%	11.60%	GLLAQGLRPESPPPAGPLLNGAPAGESPQPI	R	A	95.00%	6.56	0.535	0	0	4	2	2	3,176.55	655	685	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	6	12	0.07%	11.60%	QVVSVVQDEEVGLPFEASPESPPPASPDGV	K	G	95.00%	5.99	0.568	0	0	2	1	2	3,641.73	621	654	TRUE	
SNU216LR_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	7.72%	NPSDSAVHSPFTK	K	R	95.00%	2.96	0.378	0	1	0	0	2	1,466.63	410	422	TRUE	
SNU216LR_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	7.72%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	3.78	0.295	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216LR_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	7.72%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	4.22	0.113	0	0	1	0	2	2,692.06	462	486	TRUE	
SNU216LR_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	7.72%	YPSSISSSPQKDLTQAK	R	N	92.60%	3.72	0.0325	0	1	0	0	2	1,916.90	604	620	TRUE	
SNU216LR_PC2_01	Condensin complex subunit 2	IPI00299507	82,537.10	100.00%	2	2	2	0.01%	6.48%	DAPSLEEVEGHVADGSATEMGTTK	K	K	95.00%	3.95	0.287	0	0	1	0	2	2,511.06	186	209	TRUE	
SNU216LR_PC2_01	Condensin complex subunit 2	IPI00299507	82,537.10	100.00%	2	2	2	0.01%	6.48%	KAPLNIPGTPVLEDFPQNDDEKER	R	L	95.00%	4.31	0.42	0	0	1	0	2	2,802.34	41	64	TRUE	
SNU216LR_PC2_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	99.90%	2	2	2	0.01%	0.77%	EKVASDTEEADR	K	T	95.00%	2.39	0.299	0	1	0	0	2	1,429.58	652	663	TRUE	
SNU216LR_PC2_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	99.90%	2	2	2	0.01%	0.77%	VASDTEEADR	K	T	95.00%	2.03	0.355	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216LR_PC2_01	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	2	3	3	0.02%	4.41%	DYLLSESEDEGDNDGERK	R	H	95.00%	2.93	0.424	0	1	1	0	2	2,230.81	25	42	TRUE	
SNU216LR_PC2_01	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	2	3	3	0.02%	4.41%	SELSQDAEPAGSQETK	R	D	95.00%	3.1	0.293	0	1	0	0	2	1,756.73	434	449	TRUE	
SNU216LR_PC2_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	5	0.03%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.66	0.341	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216LR_PC2_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	5	0.03%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	3.65	0.348	0	3	0	0	2	1,896.75	495	510	TRUE	
SNU216LR_PC2_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	5	0.03%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.92	0.429	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216LR_PC2_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.90%	2	3	6	0.04%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	2.31	0.218	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216LR_PC2_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.90%	2	3	6	0.04%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	4.5	0.491	0	0	2	3	2	2,333.13	446	466	TRUE	
SNU216LR_PC2_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	AEEKSPISINVK	K	T	95.00%	2.27	0.233	0	0	1	0	2	1,394.69	121	132	TRUE	
SNU216LR_PC2_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	EVKAEEKSPISINVK	R	T	95.00%	3.6	0.441	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216LR_PC2_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	3.63	0.264	0	0	1	0	2	2,591.25	92	117	TRUE	
SNU216LR_PC2_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	99.90%	2	2	2	0.01%	3.12%	KSNLDEEVNVIPPHTPVR	R	T	95.00%	4.32	0.352	0	0	1	0	2	2,124.05	359	376	TRUE	
SNU216LR_PC2_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	99.90%	2	2	2	0.01%	3.12%	TAVIPINGSPR	K	T	95.00%	2.16	0.304	0	1	0	0	2	1,204.61	241	251	TRUE	
SNU216LR_PC2_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	5.83%	AAVVTSPPPTTAPHK	R	E	95.00%	2.63	0.398	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC2_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	5.83%	SPGSPVGEGTGSPPK	R	W	95.00%	3.26	0.515	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC2_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	5.83%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.45	0.353	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216LR_PC2_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	3	3	0.02%	4.64%	SETSWESPK	K	Q	95.00%	1.78	0.304	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216LR_PC2_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	3	3	0.02%	4.64%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	4.85	0.527	0	1	1	0	2	2,152.93	415	432	TRUE	
SNU216LR_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	11.30%	KGSVSHDTVQPR	K	T	95.00%	2.62	0.407	0	1	1	0	2	1,390.65	89	100	TRUE	
SNU216LR_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	11.30%	RQSSSYDDPWK	R	I	95.00%	2.68	0.201	0	1	0	0	2	1,448.58	218	228	TRUE	
SNU216LR_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	11.30%	RQSSSYDDPWKITDEQR	R	Q	95.00%	2.78	0.271	0	0	1	0	2	2,190.95	218	234	TRUE	
SNU216LR_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	11.30%	SHSGTSPDNTAPPPPPPRPQPSHSR	R	S	95.00%	2.9	0.322	0	0	1	0	2	2,681.22	483	507	TRUE	
SNU216LR_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	11.30%	TGSDHTNPTSPLLVKPSDLLEENK	R	I	95.00%	4.93	0.31	0	0	1	1	2	2,672.28	421	444	TRUE	
SNU216LR_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	11.30%	TGSDHTNPTSPLLVKPSDLLEENKINSSVK	R	F	95.00%	6.12	0.0362	0	0	0	1	2	3,300.64	421	450	TRUE	
SNU216LR_PC2_01	Centaurin-beta 2	IPI00014264	88,030.10	99.80%	1	1	1	0.01%	2.06%	KSSPSTGSLDSGNESK	K	E	95.00%	5.22	0.0718	0	0	1	0	2	1,660.71	377	392	TRUE	
SNU216LR_PC2_01	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	4	0.02%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.29	0.261	0	1	2	0	2	1,673.69	221	235	TRUE	
SNU216LR_PC2_01	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	4	0.02%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	2.85	0.226	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.02%	5.73%	ASGDPGASGMSPR	K	A	95.00%	2.49	0.493	0	1	0	0	2	1,269.49	99	111	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.02%	5.73%	DRTPPHLLYSDR	R	D	95.00%	2.99	0.481	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.02%	5.73%	SLSPVAAPPLREPR	R	A	95.00%	2.5	0.184	0	0	1	0	2	1,569.82	265	278	TRUE	
SNU216LR_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.02%	5.73%	TFLEGDWTSPSK	R	S	95.00%	2.61	0.359	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	5	7	7	0.04%	11.10%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.51	0.349	0	0	1	1	2	2,516.14	103	124	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	5	7	7	0.04%	11.10%	KTVFPGAVPVLPASPPPKDSLR	K	S	95.00%	4.57	0.379	0	0	1	0	2	2,353.27	216	237	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	5	7	7	0.04%	11.10%	SLEQYDQVLDGAHGASLTDLANLSEGVSLA	R	G	95.00%	4.2	0.396	0	0	1	0	2	3,438.61	560	591	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	5	7	7	0.04%	11.10%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	3.42	0.379	0	1	1	0	2	2,009.92	238	257	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	5	7	7	0.04%	11.10%	TVFPGAVPVLPASPPPKDSLR	K	S	95.00%	3.18	0.336	0	0	1	0	2	2,225.17	217	237	TRUE	
SNU216LR_PC2_01	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	HRSIHEVDISNLEAALR	R	A	95.00%	2.88	0.213	0	0	1	1	2	2,040.00	885	901	TRUE	
SNU216LR_PC2_01	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	TKSPTDDEVTPSAVVR	R	R	95.00%	3.25	0.37	0	0	1	0	2	1,781.83	795	810	TRUE	
SNU216LR_PC2_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	4	4	0.02%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.74	0.304	0	1	1	0	2	2,020.82	45	61	TRUE	
SNU216LR_PC2_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	4	4	0.02%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	4.46	0.552	0	0	1	1	2	2,176.93	44	61	TRUE	
SNU216LR_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	99.80%	2	2	2	0.01%	6.40%	KVEAPETNIDKTPK	K	K	95.00%	4.78	0.48	0	0	1	0	2	1,649.81	310	323	TRUE	
SNU216LR_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	99.80%	2	2	2	0.01%	6.40%	VESSENVPSPTHPPVVINAADDDEDDDDQ	K	T	95.00%	4.25	0.402	0	0	1	0	2	4,208.71	141	178	TRUE	
SNU216LR_PC2_01	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	3	3	4	0.02%	6.50%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	4.61	0.404	0	0	2	0	2	3,364.33	341	369	TRUE	
SNU216LR_PC2_01	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	3	3	4	0.02%	6.50%	EKLQSFDSPER	R	K	95.00%	2.46	0.241	0	1	0	0	2	1,415.62	1018	1028	TRUE	
SNU216LR_PC2_01	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	3	3	4	0.02%	6.50%	VVNPLIGLLGEYGGDSDYEEEEEEEQTPPPQ	K	T	95.00%	3.16	0.153	0	0	0	1	2	3,765.67	897	929	TRUE	
SNU216LR_PC2_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	6	0.04%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	3.83	0.242	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216LR_PC2_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	6	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	3.84	0.227	0	0	1	1	2	2,727.34	846	871	TRUE	
SNU216LR_PC2_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	6	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.45	0.473	0	0	2	1	2	3,113.52	846	874	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.80%	2	2	2	0.01%	2.71%	APSPPLSQVFQTR	R	A	95.00%	2.41	0.29	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216LR_PC2_01	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.80%	2	2	2	0.01%	2.71%	SSPVESLKK	R	E	95.00%	1.87	0.281	0	1	0	0	2	1,054.52	77	85	TRUE	
SNU216LR_PC2_01	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	3	5	6	0.04%	3.18%	QEEIDESDDDLDDKPSPIK	R	K	95.00%	4.22	0.38	0	1	1	0	2	2,267.94	714	732	TRUE	
SNU216LR_PC2_01	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	3	5	6	0.04%	3.18%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	3.6	0.408	0	1	2	0	2	2,476.01	714	733	TRUE	
SNU216LR_PC2_01	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	3	5	6	0.04%	3.18%	TLSDPPSPLPHGPPNK	R	G	95.00%	3.24	0.339	0	1	0	0	2	1,813.79	840	855	TRUE	
SNU216LR_PC2_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.10%	2	2	2	0.01%	5.09%	QLLLFPNSTIGDSGVPALPSLTMR	R	R	95.00%	2.94	0.325	0	0	1	0	2	2,607.33	192	215	TRUE	
SNU216LR_PC2_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.10%	2	2	2	0.01%	5.09%	SASEPSLHR	R	A	82.70%	1.8	0.201	0	1	0	0	2	1,063.46	619	627	TRUE	
SNU216LR_PC2_01	DNA-repair protein complementing XP-C cells	IPI00156793	105,851.90	98.70%	1	1	1	0.01%	1.49%	VIKDEALSDGDDLR	K	D	95.00%	2.34	0.327	0	1	0	0	2	1,625.74	86	99	TRUE	
SNU216LR_PC2_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	2	2	3	0.02%	12.10%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	5.32	0.0791	0	0	2	0	2	2,892.14	391	415	TRUE	
SNU216LR_PC2_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	2	2	3	0.02%	12.10%	SSISSVLKDPDSNPVSLLDNTESDQTADTDA	K	R	95.00%	7.57	0.0402	0	0	0	1	2	4,400.89	463	502	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	4.7	0.47	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	AEAPLPSPK	K	L	95.00%	2.34	0.233	0	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	APDVDVNIAGPDAALKVDVKSPK	K	T	95.00%	4.35	0.313	0	0	1	0	2	2,399.22	2128	2150	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.72	0.444	0	4	2	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	ASLGSLEGEAEAESSPKGK	K	F	82.40%	3.7	0.162	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	93.30%	4.09	0.0043	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	FKAEAPLPSPK	K	L	95.00%	2.45	0.246	0	1	0	0	2	1,264.63	2173	2183	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	GGVTGSPEASISGSK	K	G	95.00%	2.29	0.297	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	GGVTGSPEASISGSKGDLK	K	S	95.00%	2.62	0.28	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	GHYEVTGSDDETGK	K	L	95.00%	2.73	0.407	0	1	1	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.65	0.43	0	1	1	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	GKGGVTGSPEASISGSK	K	G	95.00%	3.89	0.173	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	GPAFNMASPESDFGINLK	K	G	95.00%	3.83	0.415	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	ISAPNVDFNLEGPK	R	V	95.00%	2.75	0.481	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	ISMQDVDLSLGSPK	K	L	95.00%	3.27	0.336	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	ISMSEVDLNVAAPK	R	V	95.00%	2.94	0.234	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	MYFPDVEFDIKSPK	K	F	95.00%	3.31	0.121	0	0	1	0	2	1,795.80	2159	2172	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	SKGHYEVTGSDDETGK	K	L	95.00%	3.71	0.317	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.13	0.0819	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	SNSFSDER	R	E	95.00%	2.52	0.423	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	21	27	31	0.19%	8.44%	VKTPEMIIQKPK	K	I	95.00%	3.11	0.33	0	1	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC2_01	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	99.80%	2	2	2	0.01%	1.84%	ALVVPEPEPDSDSNQER	K	K	95.00%	3.88	0.548	0	1	0	0	2	1,961.85	126	142	TRUE	
SNU216LR_PC2_01	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	99.80%	2	2	2	0.01%	1.84%	KALVVPEPEPDSDSNQER	R	K	95.00%	3.58	0.221	0	0	1	0	2	2,089.94	125	142	TRUE	
SNU216LR_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	8	0.05%	3.72%	DSGNWDTSGSELSEGELEK	K	R	95.00%	3.79	0.401	0	1	0	0	2	2,119.83	908	926	TRUE	
SNU216LR_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	8	0.05%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	95.00%	4.1	0.351	0	2	0	0	2	2,275.94	908	927	TRUE	
SNU216LR_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	8	0.05%	3.72%	HKSDSPESDAER	R	E	95.00%	1.68	0.404	0	1	0	0	2	1,597.50	863	874	TRUE	
SNU216LR_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	8	0.05%	3.72%	HKSDSPESDAEREK	R	D	95.00%	2.43	0.27	0	1	1	1	2	1,854.63	863	876	TRUE	
SNU216LR_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	8	0.05%	3.72%	SDSPESDAER	K	E	95.00%	1.57	0.32	0	1	0	0	2	1,252.38	865	874	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	ASPIKMDLAPSK	R	D	95.00%	2.23	0.25	0	1	0	0	2	1,337.65	385	396	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	ASPSKPASAPASR	R	S	95.00%	2.81	0.384	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.83	0.202	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	DMESPTKLDVTLAK	K	D	95.00%	3.32	0.291	0	2	1	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	DMSPLSETEMALGK	K	D	95.00%	3.04	0.447	0	4	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	5.33	0.414	0	0	2	0	2	3,106.50	533	560	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	DVTPPPETEVVLIK	K	N	95.00%	2.5	0.367	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	ETERASPIKMDLAPSK	K	D	95.00%	3.3	0.313	0	1	1	1	2	1,852.89	407	422	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	89.90%	6.55	0	0	0	2	0	2	3,569.64	628	661	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	6.3	0.0856	0	0	1	1	2	3,697.73	628	662	TRUE	
SNU216LR_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	16	22	0.14%	13.60%	RASPSKPASAPASR	K	S	95.00%	2.91	0.447	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00409607,IPI00642366	168,092.50	99.80%	2	2	2	0.01%	1.95%	LNQSSPDNVTDTK	K	G	95.00%	3.04	0.41	0	1	0	0	2	1,498.64	595	607	TRUE	
SNU216LR_PC2_01	Novel protein	IPI00409607,IPI00642366	168,092.50	99.80%	2	2	2	0.01%	1.95%	SISNEGLTLNNSHVSK	R	H	95.00%	2.34	0.28	0	1	0	0	2	1,779.83	462	477	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	3	3	0.02%	1.71%	KNSLISSLEEEVSILNR	R	Q	95.00%	4.07	0.358	0	1	1	0	2	2,011.01	1223	1239	TRUE	
SNU216LR_PC2_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	3	3	0.02%	1.71%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.13	0.39	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	EVEEDSEDEEMSEDEEDDSSGEEVVIPQKK	K	G	95.00%	3.33	0.317	0	0	3	0	2	3,601.33	23	52	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	GFGFVDFNSEEDAK	K	A	95.00%	2.77	0.464	0	1	0	0	2	1,641.65	588	601	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	KEDSDEEEDDDSEEDEEDDEDEDEDEIEF	K	A	95.00%	6.77	0.745	0	0	6	1	2	4,199.41	119	153	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	KVVVSPTK	K	K	95.00%	2.05	0.269	0	1	0	0	2	937.5119	63	70	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	KVVVSPTKK	K	V	95.00%	2.34	0.284	0	1	0	0	2	1,065.61	63	71	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	K	95.00%	3.78	0.429	0	0	1	0	2	4,174.54	17	51	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	G	95.00%	5.85	0.36	0	0	2	1	2	4,142.70	17	52	TRUE	
SNU216LR_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	8	10	18	0.11%	13.70%	VVVSPTKK	K	V	95.00%	1.69	0.283	0	1	0	0	2	937.5119	64	71	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	5	0.03%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.81	0.377	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC2_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	5	0.03%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.57	0.245	0	0	2	0	2	2,161.82	488	504	TRUE	
SNU216LR_PC2_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	2	3	3	0.02%	3.32%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	4.36	0.502	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216LR_PC2_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	2	3	3	0.02%	3.32%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	3.62	0.361	0	0	1	0	2	2,992.36	1263	1291	TRUE	
SNU216LR_PC2_01	methylenetetrahydrofolate dehydrogenase (NADP	IPI00291646	105,791.90	99.10%	1	1	1	0.01%	1.23%	IRTIAQAVYGAK	K	D	82.10%	2.56	0.175	0	0	1	0	2	1,450.69	869	880	TRUE	
SNU216LR_PC2_01	General transcription factor 3C polypeptide 4	IPI00016725	92,002.20	99.80%	1	1	1	0.01%	2.92%	ILLVDSPGMGNADDEQQEEGTSSK	K	Q	95.00%	5.31	0.669	0	1	0	0	2	2,600.11	606	629	TRUE	
SNU216LR_PC2_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	14.40%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	3.89	0.37	0	0	1	0	2	2,017.81	298	317	TRUE	
SNU216LR_PC2_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	14.40%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.09	0.0647	0	1	1	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC2_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	14.40%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	5.32	0.414	0	0	1	1	2	4,229.03	209	247	TRUE	
SNU216LR_PC2_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	14.40%	ISASSATR	R	E	86.30%	1.46	0.333	0	1	0	0	2	872.3873	257	264	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	AAKNSEEEEEEK	K	K	95.00%	1.9	0.305	0	1	0	0	2	1,472.58	569	580	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	GGSISVQVNSIKFDSE	R	-	95.00%	3.06	0.286	0	2	0	0	2	1,746.79	694	709	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	LQTPNTFPKR	K	K	94.60%	1.94	0.233	0	1	0	0	2	1,361.60	615	624	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	SPAVKPAAAPK	K	Q	95.00%	2.09	0.386	0	1	0	0	2	1,116.58	407	417	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	SSSSEDSSSDEEEEQKKPMK	K	N	79.80%	3.14	0.136	0	0	1	0	2	2,323.91	274	293	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	VADNSFDAKR	R	G	84.10%	1.62	0.251	0	1	0	0	2	1,202.52	649	658	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	VAGGAAPSKPASAK	K	K	95.00%	2.48	0.192	0	1	0	0	2	1,291.64	507	520	TRUE	
SNU216LR_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	8	8	9	0.06%	13.30%	VAGGAAPSKPASAKK	K	G	95.00%	2.91	0.255	0	0	1	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC2_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	3	0.02%	4.78%	HADNSSDTEMEDMIAEETLEEMDSELLK	K	C	95.00%	6.14	0.567	0	0	1	0	2	3,292.31	757	784	TRUE	
SNU216LR_PC2_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	3	0.02%	4.78%	MDRTPPPPTLSPAAITVGR	R	G	95.00%	4.3	0.405	0	0	2	0	2	2,136.99	606	624	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	99.80%	2	2	2	0.01%	1.11%	TISAQDTLAYATALLNEK	R	E	95.00%	3.05	0.423	0	1	0	0	2	2,002.97	2559	2576	TRUE	
SNU216LR_PC2_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	99.80%	2	2	2	0.01%	1.11%	VSDQNSPVLPK	R	K	95.00%	2.25	0.232	0	1	0	0	2	1,263.60	2042	2052	TRUE	
SNU216LR_PC2_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	2	2	0.01%	8.16%	FAFSPLSEEEEEDEQKEPMLK	R	E	95.00%	4.35	0.391	0	0	1	0	2	2,592.11	478	498	TRUE	
SNU216LR_PC2_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	2	2	0.01%	8.16%	WVEENVPSSVTDVALPALLDSDEER	K	M	95.00%	4.01	0.303	0	0	1	0	2	2,850.31	529	553	TRUE	
SNU216LR_PC2_01	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	99.80%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGSSASGLAK	K	V	95.00%	3.69	0.361	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216LR_PC2_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	3	5	0.03%	7.36%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	5.51	0.529	0	1	3	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC2_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	3	5	0.03%	7.36%	SSSSSSQPEHSAMLVSTAASPSLIK	K	E	95.00%	4.09	0.284	0	0	1	0	2	2,569.19	290	314	TRUE	
SNU216LR_PC2_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	6.92%	FPGDQVVNGAGPELSTGPSPGSPTLDIDQS:	R	L	95.00%	5.74	0.109	0	0	1	0	2	3,772.77	669	704	TRUE	
SNU216LR_PC2_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	6.92%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.41	0.262	0	1	0	0	2	1,852.82	646	663	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	6.92%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	5.18	0.47	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216LR_PC2_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	6.92%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.42	0.494	0	1	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	ASPEPPGPESSSR	R	W	95.00%	1.81	0.328	0	1	0	0	2	1,377.57	671	683	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	DAELQDQEFGKRDSLGTYSSR	R	D	94.30%	2.87	0.206	0	0	1	0	2	2,482.09	859	879	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	2.89	0.324	0	0	0	1	2	2,929.37	1015	1043	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.28	0.425	0	0	1	0	2	2,090.97	1023	1043	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	NRSAEEGELAESK	R	S	95.00%	3.69	0.357	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	4.01	0.377	0	0	1	0	2	2,302.99	891	911	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	5.58	0.328	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	6.66	0.525	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	RPSQGPPARSPSQDFSFIEDTEILDSAMYR	R	S	95.00%	3.82	0.412	0	0	1	0	2	3,477.58	1543	1572	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	SAEEGELAESK	R	S	95.00%	2.02	0.329	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.12	0.535	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	VPSSDEEVVEEPQSR	R	R	95.00%	4.2	0.417	0	2	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	VSGAGFSPSSK	R	M	82.80%	1.85	0.206	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216LR_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	14	16	17	0.11%	11.80%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.28	0.581	0	1	1	0	2	2,166.01	590	608	TRUE	
SNU216LR_PC2_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.78	0.473	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC2_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	3.06	0.348	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216LR_PC2_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	1	2	4	0.02%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	3.33	0.443	0	2	2	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	5.74	0.121	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216LR_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.68	0.359	0	1	1	0	2	2,172.03	344	362	TRUE	
SNU216LR_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	5.16	0.493	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216LR_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	VGNESPVQELK	K	Q	95.00%	2.62	0.319	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216LR_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	9.21%	AYTPVVVTLWYR	K	A	95.00%	2.28	0.34	0	1	1	0	2	1,547.77	593	604	TRUE	
SNU216LR_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	9.21%	DLLSDLQDISDSER	R	K	95.00%	2.73	0.198	0	1	0	0	2	1,685.73	274	287	TRUE	
SNU216LR_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	9.21%	GTSPRPPEGGLGYSQLGDDDLK	R	E	95.00%	3.24	0.2	0	0	1	0	2	2,339.06	750	771	TRUE	
SNU216LR_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	9.21%	MEITIRNSPYR	R	R	95.00%	2.54	0.26	0	0	1	0	2	1,459.68	58	68	TRUE	
SNU216LR_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	9.21%	RDSLEEGELRDHR	K	M	95.00%	2.4	0.21	0	0	0	1	2	1,691.75	45	57	TRUE	
SNU216LR_PC2_01	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	1	2	2	0.01%	3.39%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	5.08	0.116	0	1	1	0	2	2,929.08	432	455	TRUE	
SNU216LR_PC2_01	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	1	1	1	0.01%	1.45%	HLSPYATLTVGDSSHK	K	T	95.00%	3.72	0.386	0	0	1	0	2	1,792.83	818	833	TRUE	
SNU216LR_PC2_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	5	6	0.04%	4.87%	RLSVELTSSLFR	K	T	95.00%	2.93	0.354	0	1	1	0	2	1,487.76	673	684	TRUE	
SNU216LR_PC2_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	5	6	0.04%	4.87%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.35	0.428	0	2	1	0	2	1,876.84	550	565	TRUE	
SNU216LR_PC2_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	5	6	0.04%	4.87%	SPQMVSAIVR	R	T	85.40%	2.04	0.227	0	1	0	0	2	1,167.56	191	200	TRUE	
SNU216LR_PC2_01	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	5.03	0.537	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216LR_PC2_01	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	GREEHYEEEEEEEEDGAAVAEK	K	S	95.00%	3.7	0.365	0	0	1	0	2	2,644.02	668	689	TRUE	
SNU216LR_PC2_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	6	0.04%	4.00%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.02	0.417	0	1	2	0	2	2,422.92	1355	1377	TRUE	
SNU216LR_PC2_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	6	0.04%	4.00%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	4.12	0.44	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216LR_PC2_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	6	0.04%	4.00%	LPALGEAHVSPEVATADK	R	A	95.00%	3.32	0.385	0	0	1	0	2	1,884.91	1220	1237	TRUE	
SNU216LR_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	5	0.03%	8.37%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	5.03	0.493	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216LR_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	5	0.03%	8.37%	GLWSTDSAEEDKETK	R	R	95.00%	2.74	0.189	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216LR_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	5	0.03%	8.37%	GLWSTDSAEEDKETKR	R	N	95.00%	3.3	0.237	0	0	1	0	2	1,931.84	397	412	TRUE	
SNU216LR_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	5	0.03%	8.37%	QREEKSPDDLK	R	K	95.00%	2.8	0.146	0	1	0	0	2	1,424.64	159	169	TRUE	
SNU216LR_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	5	0.03%	8.37%	SKPDLESSLESLVFDLR	K	T	95.00%	3.07	0.32	0	0	1	0	2	2,014.97	182	198	TRUE	
SNU216LR_PC2_01	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	99.80%	2	2	2	0.01%	4.96%	DGLNQTTIPVSPPSTTKPSR	K	E	95.00%	4.12	0.119	0	0	1	0	2	2,176.06	474	493	TRUE	
SNU216LR_PC2_01	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	99.80%	2	2	2	0.01%	4.96%	EQYVPPRSPK	K	-	95.00%	2.26	0.182	0	1	0	0	2	1,280.60	596	605	TRUE	
SNU216LR_PC2_01	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	100.00%	3	3	3	0.02%	5.09%	HSPIAPSSPSPQVLAQK	R	Y	95.00%	3.83	0.303	0	1	0	0	2	1,823.91	305	321	TRUE	
SNU216LR_PC2_01	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	100.00%	3	3	3	0.02%	5.09%	INPDNYGMDLNSDDSTDDEAHPR	K	K	95.00%	2.8	0.444	0	0	1	0	2	2,830.96	822	844	TRUE	
SNU216LR_PC2_01	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	100.00%	3	3	3	0.02%	5.09%	TDSQSVRHSPIAPSSPSPQVLAQK	R	Y	87.40%	4.33	0.071	0	0	1	0	2	2,597.27	298	321	TRUE	
SNU216LR_PC2_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.79	0.307	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC2_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.39	0.505	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC2_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.31	0.337	0	1	0	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	AEGEPQEESPLK	K	S	95.00%	2.2	0.294	0	1	0	0	2	1,393.59	169	180	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	AEGEPQEESPLKSK	K	S	94.20%	2.49	0.241	0	1	0	0	2	1,608.72	169	182	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.42	0.406	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	DLFDYSPPLHK	K	N	93.30%	2.2	0.203	0	1	0	0	2	1,411.63	507	517	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	DTFEHDPSESIDEFNK	K	S	95.00%	2.96	0.29	0	1	0	0	2	1,989.78	189	204	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	ETQSPEQVKSEK	K	L	95.00%	2.84	0.44	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.44	0.58	0	4	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.64	0.434	0	0	4	1	2	2,726.13	369	391	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	KAEGEPQEESPLK	K	S	95.00%	3.88	0.406	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	KAEGEPQEESPLKSK	K	S	95.00%	4.24	0.414	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	KETQSPEQVKSEK	K	L	95.00%	3.63	0.282	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	LKDLFDYSPPLHK	K	N	95.00%	3.14	0.315	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	NTPSQHSHSIQHSPER	K	S	95.00%	2.91	0.279	0	1	2	0	2	1,921.83	256	271	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.58	0.536	0	1	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.82	0.342	0	0	1	1	2	2,903.23	181	204	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	SQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.04	0.277	0	0	1	0	2	2,688.10	183	204	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.85	0.415	0	1	1	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	SSSSSASPSSPSSREEK	R	E	95.00%	2.53	0.343	0	1	0	0	2	1,776.73	751	767	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	YSPSQNSPIHHIPSR	R	R	95.00%	2.73	0.313	0	0	2	0	2	1,799.82	284	298	TRUE	
SNU216LR_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	20	27	35	0.22%	18.80%	YSPSQNSPIHHIPSRR	R	S	95.00%	3.18	0.388	0	0	0	1	2	1,955.92	284	299	TRUE	
SNU216LR_PC2_01	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	100.00%	1	2	2	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.61	0.378	0	1	1	0	2	1,498.67	12	23	TRUE	
SNU216LR_PC2_01	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	KAEENASQEEEEAAEDEGGEEDLASELR	K	V	95.00%	4.76	0.485	0	0	1	0	2	3,144.27	674	701	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	KVSPIKINLK	R	N	95.00%	3.07	0.484	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216LR_PC2_01	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	4.22	0.43	0	1	0	0	2	1,941.82	934	951	TRUE	
SNU216LR_PC2_01	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.95	0.389	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216LR_PC2_01	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.8	0.344	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216LR_PC2_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	141,153.50	100.00%	4	4	4	0.02%	4.95%	EERSPQTLAPVGEDAMK	K	T	95.00%	2.75	0.269	0	1	0	0	2	1,937.87	1240	1256	TRUE	
SNU216LR_PC2_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	141,153.50	100.00%	4	4	4	0.02%	4.95%	ETAAGGLTLKEERSPQTLAPVGEDAMK	K	T	95.00%	3.34	0.263	0	0	1	0	2	2,879.39	1230	1256	TRUE	
SNU216LR_PC2_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	141,153.50	100.00%	4	4	4	0.02%	4.95%	LKPGGVGAPSSSSPSPSPSAR	K	P	84.90%	2.6	0.119	0	1	0	0	2	2,082.93	1159	1179	TRUE	
SNU216LR_PC2_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	141,153.50	100.00%	4	4	4	0.02%	4.95%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	3.85	0.214	0	0	0	1	2	3,153.39	1243	1271	TRUE	
SNU216LR_PC2_01	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	100.00%	1	1	1	0.01%	3.28%	RLSTEHSSVSEYHPADGYAFSSNIYTR	K	G	95.00%	5.95	0.0357	0	0	0	1	2	3,154.39	476	502	TRUE	
SNU216LR_PC2_01	Coiled-coil domain-containing protein 9	IPI00177642	59,703.00	100.00%	2	2	2	0.01%	5.65%	EGAASPAPETPQPTSPETSPK	K	E	92.40%	3.91	0.0145	0	1	0	0	2	2,238.92	372	392	TRUE	
SNU216LR_PC2_01	Coiled-coil domain-containing protein 9	IPI00177642	59,703.00	100.00%	2	2	2	0.01%	5.65%	SGPLEESER	K	D	95.00%	2.04	0.421	0	1	0	0	2	1,083.44	202	210	TRUE	
SNU216LR_PC2_01	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	99.80%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	95.00%	2.16	0.301	0	1	0	0	2	1,768.67	272	284	TRUE	
SNU216LR_PC2_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	3.71	0.427	0	0	1	0	2	2,816.14	239	264	TRUE	
SNU216LR_PC2_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.42	0.499	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	100.00%	2	3	3	0.02%	3.39%	ASQSRPNSSALETLGGEK	K	L	95.00%	4.63	0.0376	0	1	1	0	2	1,911.88	447	464	TRUE	
SNU216LR_PC2_01	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	100.00%	2	3	3	0.02%	3.39%	QVAEQGGDLSPAANR	K	S	95.00%	2.92	0.419	0	1	0	0	2	1,592.71	429	443	TRUE	
SNU216LR_PC2_01	KH-type splicing regulatory protein	IPI00479786,IPI00759502	73,805.40	100.00%	1	1	1	0.01%	1.83%	VQISPDSGGLPER	K	S	95.00%	2.58	0.386	0	1	0	0	2	1,434.66	178	190	TRUE	
SNU216LR_PC2_01	Isoform 1 of Hepatocyte growth factor receptor p	IPI00029273,IPI00294528	155,529.20	100.00%	1	1	3	0.02%	1.22%	SVSPTTEMVSNESVDYR	R	A	95.00%	3.13	0.338	0	3	0	0	2	1,980.83	988	1004	TRUE	
SNU216LR_PC2_01	Isoform 1 of Eukaryotic translation initiation factc	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	ALENGDADEPSFSDPEDFVDDVSEEELLGD'	R	D	95.00%	5.23	0.472	0	0	1	0	2	3,675.56	142	174	TRUE	
SNU216LR_PC2_01	Isoform 1 of Eukaryotic translation initiation factc	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.27	0.416	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216LR_PC2_01	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	1	1	1	0.01%	1.33%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.93	0.13	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216LR_PC2_01	Isoform 4 of E3 ubiquitin-protein ligase NEDD4-li	IPI00023287,IPI00163321,IP	111,935.10	99.10%	2	2	2	0.01%	4.57%	DTLSNPQSPQPSPYNSPKPQHK	K	V	95.00%	4.49	0.358	0	0	1	0	2	2,527.16	472	493	TRUE	
SNU216LR_PC2_01	Isoform 4 of E3 ubiquitin-protein ligase NEDD4-li	IPI00023287,IPI00163321,IP	111,935.10	99.10%	2	2	2	0.01%	4.57%	SLSSPTVTLSAPLEGAK	K	D	82.30%	3.18	0.0435	0	1	0	0	2	1,737.87	446	462	TRUE	
SNU216LR_PC2_01	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	1	1	1	0.01%	2.91%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.54	0.351	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	EISDDEAEEEK	K	G	95.00%	3.17	0.446	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	EISDDEAEEEKGEK	K	E	95.00%	3.48	0.348	0	0	1	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	EKEISDDEAEEEK	R	G	95.00%	2.98	0.429	0	1	1	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	4.07	0.471	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	EREKEISDDEAEEEK	K	G	95.00%	2.6	0.342	0	1	0	0	2	1,915.78	219	233	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	3.27	0.547	1	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.56	0.392	0	3	2	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	20	0.12%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	4.12	0.428	0	3	3	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC2_01	Probable ATP-dependent RNA helicase DDX20	IPI00005904	92,242.10	99.80%	2	2	2	0.01%	3.88%	SYLEGSSDNQLKDSESTPVDDR	K	I	95.00%	3.72	0.383	0	0	1	0	2	2,522.06	672	693	TRUE	
SNU216LR_PC2_01	Probable ATP-dependent RNA helicase DDX20	IPI00005904	92,242.10	99.80%	2	2	2	0.01%	3.88%	YQESPGIQMK	K	T	95.00%	2.13	0.262	0	1	0	0	2	1,260.53	711	720	TRUE	
SNU216LR_PC2_01	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	K	F	95.00%	2.49	0.385	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC2_01	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	3.08	0.301	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC2_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	2	0.01%	11.50%	EEDEEPESPPEKK	K	T	95.00%	2.41	0.222	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC2_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	2	0.01%	11.50%	NSQEDSEDSEDKDVK	K	T	95.00%	2.88	0.286	0	1	0	0	2	1,884.64	53	67	TRUE	
SNU216LR_PC2_01	sarcolemma associated protein	IPI00030531	93,205.10	99.90%	2	3	3	0.02%	1.97%	AKESDFSDTLSPSKEK	K	S	95.00%	2.91	0.448	0	1	1	0	2	1,848.83	425	440	TRUE	
SNU216LR_PC2_01	sarcolemma associated protein	IPI00030531	93,205.10	99.90%	2	3	3	0.02%	1.97%	ESDFSDTLSPSKEK	K	S	88.60%	2.67	0.134	0	1	0	0	2	1,649.69	427	440	TRUE	
SNU216LR_PC2_01	Nuclear pore complex protein Nup107	IPI00028005	106,376.70	100.00%	1	1	1	0.01%	2.38%	LRESSLMLLDQGLDLPLGYEIQL	K	-	95.00%	3.8	0.245	0	0	1	0	2	2,679.24	904	925	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	5	5	0.03%	9.45%	GLNTSQESDDDILDESSSPEGTQK	R	V	95.00%	3.45	0.512	0	1	0	0	2	2,712.04	223	246	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	5	5	0.03%	9.45%	HQSFGAAVLSR	R	E	95.00%	2.89	0.328	0	1	1	0	2	1,252.58	105	115	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	5	5	0.03%	9.45%	LQALAEEPSQPHTRSPAK	K	N	95.00%	3.89	0.372	0	0	1	0	2	2,039.99	177	194	TRUE	
SNU216LR_PC2_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	5	5	0.03%	9.45%	SSSVPHPFQVTLLR	R	N	95.00%	2.55	0.42	0	0	1	0	2	1,647.83	576	589	TRUE	
SNU216LR_PC2_01	zinc finger protein 609	IPI00307591	151,192.70	99.60%	2	2	2	0.01%	2.55%	LVEPHSPSPSSK	K	F	95.00%	2.87	0.425	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216LR_PC2_01	zinc finger protein 609	IPI00307591	151,192.70	99.60%	2	2	2	0.01%	2.55%	TNSPAYSDISDAGEDGEGKVDSVK	K	S	92.70%	5.34	0.0454	0	0	1	0	2	2,521.06	840	863	TRUE	
SNU216LR_PC2_01	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.90%	2	3	3	0.02%	5.70%	GSIDREDGSLQGPIGNQHIYQPVGKPDPAA	R	K	95.00%	4.76	0.275	0	0	0	1	2	3,518.71	842	874	TRUE	
SNU216LR_PC2_01	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.90%	2	3	3	0.02%	5.70%	QATVSWDSGGSDEAPPKPSRPGYPSPR	R	S	95.00%	3.58	0.323	0	0	1	1	2	2,906.31	698	724	TRUE	
SNU216LR_PC2_01	SCC-112 protein	IPI00303063	150,835.50	99.80%	1	1	1	0.01%	1.27%	AAVGQESPGGLEAGNAK	R	A	95.00%	3.44	0.418	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216LR_PC2_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.70%	2	2	2	0.01%	5.40%	INNYLTVPAHKLDSPTMSR	K	A	95.00%	3.66	0.316	0	0	1	0	2	2,237.08	184	202	TRUE	
SNU216LR_PC2_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.70%	2	2	2	0.01%	5.40%	SKETSSPGTDDVFTPAPSDSPSSQR	R	I	93.90%	5.11	0.0613	0	0	1	0	2	2,660.14	270	294	TRUE	
SNU216LR_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.02%	9.71%	EVSDSEAGGGPQGER	R	K	95.00%	3.25	0.543	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216LR_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.02%	9.71%	EVSDSEAGGGPQGERK	R	N	95.00%	2.9	0.458	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216LR_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.02%	9.71%	SLKESEQESEEEILAQKK	K	E	95.00%	2.97	0.264	0	0	1	0	2	2,264.99	219	236	TRUE	
SNU216LR_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.02%	9.71%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.94	0.306	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216LR_PC2_01	Transforming, acidic coiled-coil containing protein	IPI00410127,IPI00643465	281,271.30	99.80%	2	2	2	0.01%	0.97%	LDNTPASPPRSPAEPNDIPIAK	K	G	95.00%	3.37	0.186	0	0	1	0	2	2,460.12	2038	2059	TRUE	
SNU216LR_PC2_01	Transforming, acidic coiled-coil containing protein	IPI00410127,IPI00643465	281,271.30	99.80%	2	2	2	0.01%	0.97%	TPEKLDNTPASPPRSPAEPNDIPIAK	K	G	95.00%	3.55	0.311	0	0	1	0	2	2,915.36	2034	2059	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	4	6	6	0.04%	6.51%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	2.77	0.192	0	0	1	1	2	2,851.43	615	639	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	4	6	6	0.04%	6.51%	RASQEANLLTLAQK	R	A	95.00%	2.95	0.146	0	1	0	0	2	1,622.83	459	472	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	4	6	6	0.04%	6.51%	RESPSEERLEPK	R	R	95.00%	2.65	0.303	0	1	1	0	2	1,536.71	921	932	TRUE	
SNU216LR_PC2_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	4	6	6	0.04%	6.51%	SFELPPYTPPPILSPVR	R	E	95.00%	2.78	0.329	0	1	1	0	2	2,069.98	648	664	TRUE	
SNU216LR_PC2_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	GDDDEESDEEAVK	K	K	95.00%	3.29	0.356	0	1	0	0	2	1,517.52	613	625	TRUE	
SNU216LR_PC2_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	IKWDEQTSNTKGDDDEESDEEAVK	R	K	95.00%	5.32	0.424	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216LR_PC2_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	WDEQTSNTKGDDDEESDEEAVKK	K	T	95.00%	4.32	0.402	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216LR_PC2_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.31%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	5.18	0.269	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216LR_PC2_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.31%	QDSDSDVVDIEEAEHDFMGEAHPVVFSR	R	Y	95.00%	6.83	0.599	0	0	1	0	2	3,240.35	458	485	TRUE	
SNU216LR_PC2_01	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	1	1	1	0.01%	2.37%	EESDDEAAVEEEEEEKKPK	K	T	95.00%	4.07	0.479	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216LR_PC2_01	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	2	3	5	0.03%	4.44%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	4.85	0.545	0	1	3	0	2	2,339.18	682	702	TRUE	
SNU216LR_PC2_01	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	2	3	5	0.03%	4.44%	YMLTHQELASDGEIETK	K	L	95.00%	3.05	0.337	0	1	0	0	2	2,044.89	754	770	TRUE	
SNU216LR_PC2_01	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	ATLDEEDLVDSLSEGDAYPNGLQVNFHSPR	R	S	95.00%	4.36	0.332	0	0	1	0	2	3,368.50	21	50	TRUE	
SNU216LR_PC2_01	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	RATLDEEDLVDSLSEGDAYPNGLQVNFHSP	K	S	95.00%	7.6	0.487	0	0	1	1	2	3,524.60	20	50	TRUE	
SNU216LR_PC2_01	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	3.46	0.264	0	0	2	0	2	3,089.34	651	677	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_01	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	DGTSPEEEIEIER	K	Q	95.00%	2.62	0.409	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216LR_PC2_01	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	FKIDSNISPKK	K	D	87.70%	2.36	0.132	0	1	0	0	2	1,356.69	146	156	TRUE	
SNU216LR_PC2_01	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	TLDSGTSEIVKSPR	R	I	95.00%	3.13	0.274	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216LR_PC2_01	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	12.30%	GSDALSETSSVSHIEDLEK	R	V	95.00%	3.24	0.27	0	1	1	0	2	2,083.91	713	731	TRUE	
SNU216LR_PC2_01	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	12.30%	LISGDIPGPLQGSGQDMVSILQLVQNLMHC	K	I	95.00%	3.44	0.338	0	0	1	1	2	4,380.05	42	81	TRUE	
SNU216LR_PC2_01	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	12.30%	LSSGPEQITLEASSTEGHPGAPSPQHTDQTE	R	G	95.00%	5.42	0.293	0	0	0	1	2	3,742.69	735	769	TRUE	
SNU216LR_PC2_01	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	12.30%	SLRGSDALSETSSVSHIEDLEK	R	V	95.00%	5.77	0.411	0	0	1	0	2	2,440.12	710	731	TRUE	
SNU216LR_PC2_01	ATP-dependent RNA helicase DDX1	IPI00293655	82,433.20	100.00%	1	1	1	0.01%	2.43%	DNTRPGANSPEMWSEAIK	K	I	95.00%	2.85	0.264	0	0	1	0	2	2,082.90	473	490	TRUE	
SNU216LR_PC2_01	Myosin-9	IPI00019502	226,406.30	100.00%	1	1	1	0.01%	0.72%	KGAGDGSDEEVDGK	R	A	95.00%	3.24	0.489	0	1	0	0	2	1,443.56	1936	1949	TRUE	
SNU216LR_PC2_01	Protein CASC3	IPI00289491	76,277.90	100.00%	4	5	5	0.03%	6.26%	QSGDGQESTEPVENK	R	V	95.00%	2.67	0.5	0	1	0	0	2	1,684.67	147	161	TRUE	
SNU216LR_PC2_01	Protein CASC3	IPI00289491	76,277.90	100.00%	4	5	5	0.03%	6.26%	SEANDAVNSSTKEEK	K	G	95.00%	3.67	0.34	0	1	0	0	2	1,688.70	117	131	TRUE	
SNU216LR_PC2_01	Protein CASC3	IPI00289491	76,277.90	100.00%	4	5	5	0.03%	6.26%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	5.34	0.171	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216LR_PC2_01	Protein CASC3	IPI00289491	76,277.90	100.00%	4	5	5	0.03%	6.26%	YGSPPQR	R	D	95.00%	1.43	0.359	0	1	0	0	2	884.3663	263	269	TRUE	
SNU216LR_PC3_01	Poly(rC)-binding protein 1	IPI00016610	37,498.20	99.80%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	4.35	0.38	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216LR_PC3_01	Goodpasture antigen-binding protein	IPI00657692	83,707.90	100.00%	1	1	1	0.01%	2.39%	SSSMSSIDLVSASDDVHR	R	F	94.60%	4.26	0.0244	0	1	0	0	2	1,972.83	503	520	TRUE	
SNU216LR_PC3_01	Isoform 1 of Cleavage and polyadenylation specif	IPI00012998,IPI00030654,IP	59,211.00	100.00%	1	1	1	0.01%	1.81%	SRDRHDDYYR	R	E	95.00%	2.78	0.37	0	1	0	0	2	1,462.59	513	522	TRUE	
SNU216LR_PC3_01	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	3	4	7	0.04%	8.10%	GPDEAMEDGEEGSDDEAEWVVTK	R	D	95.00%	5.79	0.609	0	2	3	0	2	2,574.97	426	448	TRUE	
SNU216LR_PC3_01	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	3	4	7	0.04%	8.10%	SKYDEIFYNLAPADGKLSGSK	K	A	95.00%	3.59	0.34	0	0	1	0	2	2,383.12	451	471	TRUE	
SNU216LR_PC3_01	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	3	4	7	0.04%	8.10%	YDEIFYNLAPADGKLSGSK	K	A	95.00%	3.01	0.336	0	1	0	0	2	2,168.00	453	471	TRUE	
SNU216LR_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	6	0.04%	9.11%	DIEISTEEEKDTGDLKDSSLLK	R	T	95.00%	3.35	0.313	0	1	0	0	2	2,625.15	333	354	TRUE	
SNU216LR_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	6	0.04%	9.11%	KRSSSEDAESLAPR	R	S	95.00%	3.44	0.441	0	2	1	0	2	1,612.73	296	309	TRUE	
SNU216LR_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	6	0.04%	9.11%	SRPTSEGSDIESTEPQK	R	Q	95.00%	3.33	0.171	0	1	0	0	2	1,927.83	254	270	TRUE	
SNU216LR_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	6	0.04%	9.11%	SSSEDAESLAPR	R	S	95.00%	3.17	0.393	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216LR_PC3_01	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.90%	2	3	3	0.02%	6.24%	GHTDTEGRPPSPPPTSTPEK	R	C	95.00%	4.42	0.108	0	1	1	0	2	2,167.97	353	372	TRUE	
SNU216LR_PC3_01	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.90%	2	3	3	0.02%	6.24%	VKEEPPSPPQSPR	R	V	95.00%	3.09	0.336	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216LR_PC3_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.58	0.546	0	1	1	0	2	2,873.37	59	85	TRUE	
SNU216LR_PC3_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	95.00%	4.35	0.0167	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC3_01	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	1	2	2	0.01%	7.24%	QASEQENEDSMAEAPESNHPEDQETMETI	K	G	95.00%	6	0.532	0	0	1	1	2	4,177.64	296	331	TRUE	
SNU216LR_PC3_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	4.20%	AHAWPSPYKDYEVK	R	K	95.00%	2.8	0.298	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC3_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	4.20%	AHAWPSPYKDYEVKK	R	E	95.00%	2.58	0.198	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216LR_PC3_01	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	99.80%	2	2	2	0.01%	4.94%	NSNSPPSPSSMNQR	R	R	95.00%	2.64	0.293	0	1	0	0	2	1,582.63	438	451	TRUE	
SNU216LR_PC3_01	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	99.80%	2	2	2	0.01%	4.94%	RKPSPEPEGEVGPPK	K	I	95.00%	3.71	0.43	0	1	0	0	2	1,683.81	341	355	TRUE	
SNU216LR_PC3_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	AIGSTSKPQESPK	R	G	95.00%	2.21	0.323	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216LR_PC3_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	AIGSTSKPQESPKGK	R	R	95.00%	2.61	0.259	0	1	0	0	2	1,594.78	231	245	TRUE	
SNU216LR_PC3_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.86	0.338	0	1	1	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC3_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	6	6	0.04%	8.37%	TKPTQAAGPSSPQKPPTPEETK	K	A	95.00%	3.4	0.173	0	1	0	1	2	2,357.14	437	458	TRUE	
SNU216LR_PC3_01	Histone deacetylase 1	IPI00013774	55,104.10	100.00%	2	3	9	0.05%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	R	95.00%	6.05	0.516	0	0	1	0	2	3,555.48	372	403	TRUE	
SNU216LR_PC3_01	Histone deacetylase 1	IPI00013774	55,104.10	100.00%	2	3	9	0.05%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	I	95.00%	7.62	0.522	0	0	4	4	2	3,727.58	372	404	TRUE	
SNU216LR_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	5	7	0.04%	6.69%	NWTEDMEGGISSPVK	R	K	95.00%	2.62	0.24	0	1	0	0	2	1,729.71	312	326	TRUE	
SNU216LR_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	5	7	0.04%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	3.63	0.376	0	2	1	0	2	1,857.81	312	327	TRUE	
SNU216LR_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	5	7	0.04%	6.69%	SPFNSPSPQDSPR	K	L	95.00%	3.51	0.465	0	1	0	0	2	1,495.62	333	345	TRUE	
SNU216LR_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	5	7	0.04%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	3.81	0.442	0	2	0	0	2	2,099.87	328	345	TRUE	
SNU216LR_PC3_01	Tumor necrosis factor, alpha-induced protein 2	IPI00304866	72,663.20	99.80%	2	2	2	0.01%	5.50%	IRSILDVSMGAQEPSRPLFSLIK	R	V	95.00%	3.26	0.223	0	0	1	0	2	2,637.38	630	652	TRUE	
SNU216LR_PC3_01	Tumor necrosis factor, alpha-induced protein 2	IPI00304866	72,663.20	99.80%	2	2	2	0.01%	5.50%	RQSKVEALYELLR	R	D	95.00%	2.94	0.392	0	0	1	0	2	1,684.88	121	133	TRUE	
SNU216LR_PC3_01	Histone deacetylase 2	IPI00289601	55,365.50	100.00%	1	2	8	0.05%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	6.33	0.601	0	0	3	5	2	3,681.55	373	405	TRUE	
SNU216LR_PC3_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	3	3	3	0.02%	6.01%	AHSDDEKWGR	K	E	95.00%	2.03	0.319	0	0	1	0	2	1,280.51	138	147	TRUE	
SNU216LR_PC3_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	3	3	3	0.02%	6.01%	AQGSDEDKLQNSDDDEK	R	M	95.00%	2.58	0.429	0	1	0	0	2	2,053.73	168	184	TRUE	
SNU216LR_PC3_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	3	3	3	0.02%	6.01%	KLTSDEEGEPSGK	K	R	95.00%	2.8	0.304	0	1	0	0	2	1,456.62	627	639	TRUE	
SNU216LR_PC3_01	FK506-binding protein 5	IPI00218775,IPI00743671	51,213.60	99.80%	1	1	1	0.01%	3.50%	GTDSQAMEEEKPEGHV	K	-	95.00%	2.59	0.346	0	1	0	0	2	1,823.72	442	457	TRUE	
SNU216LR_PC3_01	14-3-3 protein zeta/delta	IPI00021263	27,745.90	99.60%	1	1	1	0.01%	6.94%	GDYYRYLAEVAAGDDKK	K	G	91.50%	2.94	0.193	0	0	0	1	2	2,013.90	123	139	TRUE	
SNU216LR_PC3_01	SAMD4A protein	IPI00744767	79,415.70	99.40%	2	2	2	0.01%	4.46%	AYSSPSTTPEAR	K	R	88.10%	2.61	0.113	0	1	0	0	2	1,346.56	417	428	TRUE	
SNU216LR_PC3_01	SAMD4A protein	IPI00744767	79,415.70	99.40%	2	2	2	0.01%	4.46%	GFGQSNSLPTAGSVGGGMGR	R	R	95.00%	2.86	0.361	0	1	0	0	2	1,916.83	574	593	TRUE	
SNU216LR_PC3_01	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	5	0.03%	7.42%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	3.82	0.54	0	2	1	0	2	1,957.90	293	311	TRUE	
SNU216LR_PC3_01	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	5	0.03%	7.42%	SPSPPDGSPAATPEIR	K	V	95.00%	3.05	0.361	0	1	0	0	2	1,738.71	296	311	TRUE	
SNU216LR_PC3_01	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	5	0.03%	7.42%	VNHEPEPAGGATPGATLPKSPSQLR	R	K	95.00%	6.27	0.618	0	0	1	0	2	2,591.26	312	336	TRUE	
SNU216LR_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	5.24%	NKSNEDQSMGNWQIK	K	R	95.00%	4.23	0.468	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216LR_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	5.24%	NKSNEDQSMGNWQIKR	R	Q	95.00%	3.97	0.448	0	0	1	0	2	2,014.88	456	471	TRUE	
SNU216LR_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	5.24%	SGAQASSTPLSPTR	R	I	95.00%	2.62	0.231	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216LR_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.02%	5.24%	SNEDQSMGNWQIK	K	R	95.00%	2.79	0.255	0	1	0	0	2	1,616.64	458	470	TRUE	
SNU216LR_PC3_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPK	R	Y	95.00%	5.14	0.5	0	1	1	0	2	2,165.95	217	236	TRUE	
SNU216LR_PC3_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	3.68	0.235	0	0	0	1	2	2,698.25	217	240	TRUE	
SNU216LR_PC3_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.32	0.51	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216LR_PC3_01	abl-interactor 1 isoform a	IPI00431025,IPI00431026,IP	43,178.40	99.80%	1	1	2	0.01%	3.15%	TNPPTQKPPSPPMSGR	R	G	95.00%	2.95	0.303	0	2	0	0	2	1,771.82	173	188	TRUE	
SNU216LR_PC3_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	ARVDHGAEIITQSPGR	K	S	95.00%	3.95	0.195	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216LR_PC3_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	3.81	0.0817	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216LR_PC3_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	VDHGAEIITQSPGR	R	S	95.00%	3.39	0.435	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	4.32%	GSPTGGAQLLKR	R	K	95.00%	1.99	0.303	0	1	0	0	2	1,264.64	512	523	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	4.32%	VGDGDLSAEEIPENEVSLRR	K	A	95.00%	3.27	0.269	0	0	1	0	2	2,265.04	239	258	TRUE	
SNU216LR_PC3_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	99.80%	2	2	2	0.01%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	3.17	0.294	0	0	1	0	2	2,128.94	8	26	TRUE	
SNU216LR_PC3_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	99.80%	2	2	2	0.01%	6.97%	VDGETASDSESR	K	A	95.00%	2.41	0.42	0	1	0	0	2	1,332.50	27	38	TRUE	
SNU216LR_PC3_01	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.80%	2	2	2	0.01%	3.56%	ALPNNTSSSPQPK	R	K	95.00%	2.23	0.294	0	1	0	0	2	1,420.65	307	319	TRUE	
SNU216LR_PC3_01	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.80%	2	2	2	0.01%	3.56%	RALPNNTSSSPQPK	K	K	95.00%	2.33	0.257	0	1	0	0	2	1,576.75	306	319	TRUE	
SNU216LR_PC3_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	1	2	4	0.02%	1.56%	RPMEEDGEEKSPSK	K	K	95.00%	3.87	0.34	0	2	2	0	2	1,714.70	372	385	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	DNA polymerase alpha subunit B	IPI00290272	65,948.80	99.80%	1	2	2	0.01%	3.34%	SPHQLLSPSSFSPSATPSQK	R	Y	95.00%	4.24	0.301	0	1	1	0	2	2,163.01	141	160	TRUE	
SNU216LR_PC3_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	99.20%	1	1	1	0.01%	3.66%	VWSPLVTEEGKR	K	H	83.80%	2.37	0.161	0	1	0	0	2	1,480.72	87	98	TRUE	
SNU216LR_PC3_01	Importin alpha-4 subunit	IPI00012578	57,886.90	100.00%	1	1	1	0.01%	5.57%	VQNTSLEAIVQNASSDNQGIQLSAVQAAR	R	K	95.00%	3.29	0.427	0	0	1	0	2	3,092.50	68	96	TRUE	
SNU216LR_PC3_01	ETS domain-containing transcription factor ERF	IPI00032936	58,704.10	99.80%	2	2	2	0.01%	7.48%	RVSSDLQHATAQLSLEHR	R	D	95.00%	4.52	0.503	0	0	0	1	2	2,128.03	529	546	TRUE	
SNU216LR_PC3_01	ETS domain-containing transcription factor ERF	IPI00032936	58,704.10	99.80%	2	2	2	0.01%	7.48%	TPADTGFAFPDWAYKPESSPGSR	K	Q	95.00%	4.36	0.409	0	0	1	0	2	2,564.11	3	25	TRUE	
SNU216LR_PC3_01	Protein DEK	IPI00020021	42,675.90	100.00%	5	7	8	0.05%	19.20%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	3.86	0.622	0	1	2	0	2	2,722.93	30	50	TRUE	
SNU216LR_PC3_01	Protein DEK	IPI00020021	42,675.90	100.00%	5	7	8	0.05%	19.20%	EESEEEEDEDDEEEEEEEKEKSLIVEGK	R	R	95.00%	3.67	0.396	0	0	1	0	2	3,449.35	30	57	TRUE	
SNU216LR_PC3_01	Protein DEK	IPI00020021	42,675.90	100.00%	5	7	8	0.05%	19.20%	EPEMPGPREESEEEEDEDDEEEEEEEKEK	K	S	95.00%	5.7	0.468	0	0	1	0	2	3,616.33	22	50	TRUE	
SNU216LR_PC3_01	Protein DEK	IPI00020021	42,675.90	100.00%	5	7	8	0.05%	19.20%	KESESEDSSDDEPLIKK	K	L	91.70%	2.18	0.248	0	1	0	0	2	2,175.80	299	315	TRUE	
SNU216LR_PC3_01	Protein DEK	IPI00020021	42,675.90	100.00%	5	7	8	0.05%	19.20%	NKEESSDDEDKESEEEPPK	K	K	95.00%	2.92	0.332	0	1	1	0	2	2,460.83	239	257	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	EESEESEAEPVQR	R	T	95.00%	3.14	0.205	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	EVSDSEAGGGPQGER	R	K	95.00%	3.33	0.54	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	EVSDSEAGGGPQGERK	R	N	95.00%	3.05	0.468	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	GEESSEEEEKGYK	R	G	95.00%	1.93	0.349	0	1	0	0	2	1,660.57	156	168	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	KQAREESEESEAEPVQR	R	T	95.00%	2.92	0.194	0	0	1	0	2	2,081.91	190	206	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	NGVAAEVSPAKEENPR	K	R	95.00%	2.97	0.33	0	1	0	0	2	1,747.80	118	133	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	RLSGSSEDEEDSGKGEPTAK	K	G	95.00%	2.71	0.313	0	1	0	0	2	2,318.85	328	347	TRUE	
SNU216LR_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	18.30%	TLDSDEERPRPAPPDWSHMR	R	G	85.40%	2.65	0.167	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216LR_PC3_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	3.36%	ERPSSREDTPSR	K	L	95.00%	2.31	0.354	0	1	0	0	2	1,496.65	437	448	TRUE	
SNU216LR_PC3_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	3.36%	KVQVAALQASPPLDQDDR	R	A	95.00%	3.87	0.333	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC3_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	3.36%	SRSWEDSPER	R	G	83.70%	2.36	0.143	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC3_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	3.36%	SWEDSPER	R	G	94.30%	1.77	0.252	0	1	0	0	2	1,085.39	170	177	TRUE	
SNU216LR_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	4	0.02%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	4.72	0.53	0	2	1	0	2	2,051.83	68	85	TRUE	
SNU216LR_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	4	0.02%	5.07%	NEEDEGHSNSSPR	K	H	95.00%	2.73	0.38	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216LR_PC3_01	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	99.80%	1	1	1	0.01%	2.07%	ASSLNVLNVGGK	R	A	95.00%	2.71	0.338	0	1	0	0	2	1,238.61	541	552	TRUE	
SNU216LR_PC3_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	2	2	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	2.6	0.248	0	1	1	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	7	11	16	0.09%	19.80%	EDSSEEEEEEIDDEEIER	R	R	95.00%	3.67	0.551	0	1	0	0	2	2,370.79	130	147	TRUE	
SNU216LR_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	7	11	16	0.09%	19.80%	IVEPEVVGESDSEVEGDAWR	K	M	95.00%	4.68	0.522	0	1	1	0	2	2,281.99	107	126	TRUE	
SNU216LR_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	7	11	16	0.09%	19.80%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	5.68	0.546	0	2	2	0	2	2,410.08	106	126	TRUE	
SNU216LR_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	7	11	16	0.09%	19.80%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	4.1	0.571	0	1	2	0	2	2,786.98	127	147	TRUE	
SNU216LR_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	7	11	16	0.09%	19.80%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	3.59	0.459	0	0	1	0	2	2,722.03	44	64	TRUE	
SNU216LR_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	7	11	16	0.09%	19.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	4.62	0.452	0	0	3	0	2	2,770.16	44	65	TRUE	
SNU216LR_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	7	11	16	0.09%	19.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	4.89	0.52	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216LR_PC3_01	snRNA-activating protein complex subunit 1	REVERSE_IPI00002848-R	42,995.70	99.70%	1	1	1	0.01%	7.34%	SATFETGSLSENEEEEITVPMSLSLPK	K	D	95.00%	3.11	0.178	0	0	1	0	2	3,181.29	7	33	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	15	0.09%	4.56%	EISDDEAEEEK	K	G	95.00%	3.1	0.428	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	15	0.09%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.27	0.45	0	1	1	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	15	0.09%	4.56%	EKEISDDEAEEEK	R	G	95.00%	2.6	0.34	0	1	1	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	15	0.09%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.79	0.432	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	15	0.09%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.73	0.331	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	15	0.09%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.82	0.47	0	2	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	15	0.09%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.98	0.391	0	3	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC3_01	Histone H1.5	IPI00217468	22,450.50	100.00%	2	4	5	0.03%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	5.01	0.534	0	2	1	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC3_01	Histone H1.5	IPI00217468	22,450.50	100.00%	2	4	5	0.03%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.85	0.386	0	0	1	1	2	2,190.07	1	21	TRUE	
SNU216LR_PC3_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	99.40%	2	2	2	0.01%	5.69%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	87.40%	3.68	0.116	0	0	1	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC3_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	99.40%	2	2	2	0.01%	5.69%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	4.25	0.416	0	0	1	0	2	2,844.03	668	689	TRUE	
SNU216LR_PC3_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.90%	2	3	3	0.02%	4.57%	RHSSDINHLVTQGR	R	E	95.00%	2.77	0.275	0	0	1	1	2	1,699.80	481	494	TRUE	
SNU216LR_PC3_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.90%	2	3	3	0.02%	4.57%	TISDGTISASK	R	Q	95.00%	2.08	0.413	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216LR_PC3_01	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	10	0.06%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.44	0.451	0	4	3	0	2	1,593.72	221	235	TRUE	
SNU216LR_PC3_01	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	10	0.06%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.68	0.441	0	1	2	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	5	7	0.04%	13.00%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	3.23	0.395	0	1	2	0	2	2,033.80	298	317	TRUE	
SNU216LR_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	5	7	0.04%	13.00%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	3.87	0.0451	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	5	7	0.04%	13.00%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	8.29	0.534	0	0	2	1	2	4,229.03	209	247	TRUE	
SNU216LR_PC3_01	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	99.80%	1	1	1	0.01%	2.62%	SLTPAVPVESKPDKPSGK	K	S	95.00%	2.77	0.368	0	0	1	0	2	1,916.97	111	128	TRUE	
SNU216LR_PC3_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	6	0.04%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.61	0.381	0	3	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC3_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	6	0.04%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.22	0.453	0	0	2	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC3_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	99.90%	1	1	1	0.01%	2.86%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	3.39	0.344	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	5.11	0.492	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	4.48	0.243	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	90.70%	2.37	0.178	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	6.63%	DSGSDTASAIIPSTTPSVDSDDESVVK	K	D	95.00%	4.88	0.045	0	1	0	0	2	2,760.20	183	209	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	6.63%	GEIKDSPSSSSPSPK	K	G	95.00%	3.73	0.0615	0	1	0	0	2	1,582.70	333	347	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	6.63%	HLFSSTENLAAGSWKEPAEGGGLSSDR	K	Q	95.00%	5.55	0.425	0	0	1	0	2	2,883.29	353	379	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	6.63%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	92.40%	6.41	0.0244	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	6.63%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	90.50%	6.39	0.0196	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	6.63%	RSSLLSLMTGK	R	K	94.00%	2.3	0.197	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	6.63%	RSSLLSLMTGKK	R	D	95.00%	2.36	0.23	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC3_01	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	3	3	0.02%	3.84%	TEDGDWEWSDDEMDEK	K	S	95.00%	3.45	0.541	0	1	0	0	2	2,066.68	379	394	TRUE	
SNU216LR_PC3_01	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	3	3	0.02%	3.84%	TEDGDWEWSDDEMDEKSEEGK	K	A	95.00%	4.43	0.601	0	1	1	0	2	2,596.92	379	399	TRUE	
SNU216LR_PC3_01	TRK-fused gene/anaplastic large cell lymphoma k	IPI00294619,IPI00297452	88,672.80	99.80%	1	1	1	0.01%	2.99%	NVMSAFGLTDDQVSGPPSAPAEDR	K	S	95.00%	3.58	0.261	0	0	1	0	2	2,541.10	180	203	TRUE	
SNU216LR_PC3_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	3	3	3	0.02%	2.69%	ASEDTTSGSPPK	R	K	95.00%	2.38	0.347	0	1	0	0	2	1,256.50	456	467	TRUE	
SNU216LR_PC3_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	3	3	3	0.02%	2.69%	ASEDTTSGSPPKK	R	S	95.00%	3.28	0.522	0	1	0	0	2	1,384.60	456	468	TRUE	
SNU216LR_PC3_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	3	3	3	0.02%	2.69%	RASEDTTSGSPPKK	K	S	95.00%	2.26	0.313	0	1	0	0	2	1,540.70	455	468	TRUE	
SNU216LR_PC3_01	far upstream element-binding protein	IPI00375441	67,560.60	100.00%	1	2	2	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	4.19	0.498	0	1	1	0	2	2,661.16	621	644	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	99.40%	1	2	2	0.01%	2.12%	EREVDEDSEPER	R	E	95.00%	2.7	0.299	0	1	1	0	2	1,569.61	75	86	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	3	3	0.02%	6.91%	GLNTSQESDDDILDESSSPEGTQK	R	V	95.00%	5.27	0.612	0	1	0	0	2	2,632.08	223	246	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	3	3	0.02%	6.91%	HQSFGAAVLSR	R	E	95.00%	2.47	0.369	0	1	0	0	2	1,252.58	105	115	TRUE	
SNU216LR_PC3_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	3	3	0.02%	6.91%	SSSVPHPFQVTLLR	R	N	95.00%	2.69	0.37	0	0	1	0	2	1,647.83	576	589	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	6.51%	EQLGEEIDSK	K	V	95.00%	1.69	0.196	1	0	0	0	2	1,227.51	659	668	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	6.51%	KAEPSEVDMNSPK	K	S	95.00%	3.34	0.295	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	6.51%	KKEEPSQNDISPK	K	T	95.00%	3.05	0.459	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	6.51%	NEEPSEEEIDAPKPK	K	K	95.00%	3.62	0.348	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC3_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	1	1	1	0.01%	1.43%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.55	0.452	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC3_01	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	5	5	0.03%	18.30%	EHPTVVPSHKSPVLDTKPK	R	E	95.00%	3.61	0.504	0	0	1	1	2	2,176.12	454	472	TRUE	
SNU216LR_PC3_01	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	5	5	0.03%	18.30%	ETGGILGEGTPK	K	E	95.00%	2.56	0.314	0	1	0	0	2	1,238.57	473	484	TRUE	
SNU216LR_PC3_01	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	5	5	0.03%	18.30%	PVSGQDTSGNTEGSPAAEK	K	A	95.00%	3.67	0.539	0	1	0	0	2	1,911.80	496	514	TRUE	
SNU216LR_PC3_01	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	5	5	0.03%	18.30%	SEAAGSPDQGSTYSPAR	K	G	95.00%	3.56	0.325	0	1	0	0	2	1,760.71	519	535	TRUE	
SNU216LR_PC3_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	2.67	0.332	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC3_01	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	4	4	0.02%	13.10%	DNSNSDSEGEDRRPAGPPR	R	E	95.00%	2.68	0.275	0	0	1	0	2	2,215.84	86	104	TRUE	
SNU216LR_PC3_01	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	4	4	0.02%	13.10%	EKHQTLEVSLSRDSPLK	K	T	93.10%	3.24	0.158	0	0	1	0	2	2,047.02	356	372	TRUE	
SNU216LR_PC3_01	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	4	4	0.02%	13.10%	HQTLEVSLSRDSPLK	K	T	95.00%	4.12	0.331	0	0	1	0	2	1,789.88	358	372	TRUE	
SNU216LR_PC3_01	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	4	4	0.02%	13.10%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	5.76	0.473	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216LR_PC3_01	Phosphoglucomutase-2-like 1	IPI00173346	70,457.40	99.80%	1	1	1	0.01%	2.09%	AVAGVMITASHNR	K	K	95.00%	2.7	0.346	0	1	0	0	2	1,406.66	166	178	TRUE	
SNU216LR_PC3_01	CDNA FLJ16400 fis, clone TUTER2000057, moder	IPI00442167	26,167.70	99.80%	2	2	2	0.01%	13.80%	MDSEDSISSTIMDVDSTISSGR	R	S	95.00%	2.53	0.24	0	0	0	1	2	2,588.91	219	240	TRUE	
SNU216LR_PC3_01	CDNA FLJ16400 fis, clone TUTER2000057, moder	IPI00442167	26,167.70	99.80%	2	2	2	0.01%	13.80%	RGSLEMSSDGEPLSR	R	M	95.00%	2.11	0.33	0	1	0	0	2	1,780.70	204	218	TRUE	
SNU216LR_PC3_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	2	2	0.01%	4.86%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.42	0.329	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216LR_PC3_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	2	2	0.01%	4.86%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	2.99	0.25	0	0	1	0	2	2,009.92	238	257	TRUE	
SNU216LR_PC3_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	3	3	3	0.02%	6.47%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.21	0.332	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC3_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	3	3	3	0.02%	6.47%	SEAEEGEVRTPTK	R	I	95.00%	2.94	0.206	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216LR_PC3_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	3	3	3	0.02%	6.47%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.42	0.295	0	0	1	0	2	2,794.21	430	455	TRUE	
SNU216LR_PC3_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	2	2	2	0.01%	1.13%	NDRDQHTDSTQSANSSPDEDTEVK	R	T	95.00%	5.17	0.0822	0	0	1	0	2	2,836.06	2377	2400	TRUE	
SNU216LR_PC3_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	2	2	2	0.01%	1.13%	NSSTPGLQVPVSPTVPIQNQK	R	Y	95.00%	2.96	0.303	0	1	0	0	2	2,271.14	3025	3045	TRUE	
SNU216LR_PC3_01	Isoform 1 of Doublecortin domain-containing pro	IPI00008917	52,803.60	100.00%	2	2	2	0.01%	3.36%	STVGSSDNSSPQPLK	K	R	95.00%	3.09	0.264	0	1	0	0	2	1,583.70	261	275	TRUE	
SNU216LR_PC3_01	Isoform 1 of Doublecortin domain-containing pro	IPI00008917	52,803.60	100.00%	2	2	2	0.01%	3.36%	STVGSSDNSSPQPLKR	K	K	95.00%	3.25	0.305	0	1	0	0	2	1,739.80	261	276	TRUE	
SNU216LR_PC3_01	Sphingosine-1-phosphate lyase 1	IPI00099463	63,525.90	100.00%	1	1	1	0.01%	5.81%	NMVAELSSVFLDSLYSTDTVTQGSQMNGS	R	-	95.00%	4.74	0.276	0	0	1	0	2	3,636.62	536	568	TRUE	
SNU216LR_PC3_01	NADH-ubiquinone oxidoreductase flavoprotein 3	IPI00291016	50,984.20	99.10%	1	1	1	0.01%	6.34%	KVTSPSSSSSSSSSDSESDDEADVSEVTPR	R	V	81.80%	5.73	0.0223	0	0	1	0	2	3,126.28	147	176	TRUE	
SNU216LR_PC3_01	Novel protein	IPI00409607,IPI00642366	166,735.90	99.80%	1	1	1	0.01%	1.01%	YDGESDKEQFDDDQK	K	V	95.00%	3.81	0.322	0	1	0	0	2	1,898.70	1133	1147	TRUE	
SNU216LR_PC3_01	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	1	1	1	0.01%	3.16%	SGSMDPSGAHPSVR	R	Q	95.00%	2.4	0.278	0	1	0	0	2	1,480.59	18	31	TRUE	
SNU216LR_PC3_01	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	99.80%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	5.58	0.0516	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216LR_PC3_01	Plastin-2	IPI00010471	70,160.90	100.00%	1	1	4	0.02%	1.92%	GSVSDEEMMELR	R	E	95.00%	2.56	0.524	0	4	0	0	2	1,462.56	3	14	TRUE	
SNU216LR_PC3_01	CDNA FLJ45525 fis, clone BRTHA2026311, highly	IPI00299571	53,929.90	100.00%	1	2	2	0.01%	5.08%	DGELPVEDDIDLSDVELDDLGKDEL	R	-	95.00%	4.89	0.507	0	1	1	0	2	2,838.23	468	492	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	5	6	0.04%	12.90%	APSPPVEHPR	R	L	95.00%	2.2	0.271	0	2	0	0	2	1,166.54	177	186	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	5	6	0.04%	12.90%	AQVLATIHGHAGAFPAAGDAGEGAPGGGS	R	V	95.00%	7.41	0.652	0	0	1	1	2	3,093.42	283	315	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	5	6	0.04%	12.90%	RAQVLATIHGHAGAFPAAGDAGEGAPGGG	R	V	95.00%	5.56	0.483	0	0	0	1	2	3,249.52	282	315	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	5	6	0.04%	12.90%	SRSFTLDDESLK	R	Y	95.00%	2.92	0.197	0	1	0	0	2	1,477.66	41	52	TRUE	
SNU216LR_PC3_01	Kinesin-like protein KIF2	IPI00010368	77,749.80	99.20%	1	1	1	0.01%	5.54%	ELTVDPTAAGDVRPIMHHPPNQIDDLETQV	K	D	83.10%	3.58	0.114	0	0	0	1	2	4,243.99	532	569	TRUE	
SNU216LR_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	5	6	8	0.05%	16.10%	GNSRPGTPSAEGGSTSSTLR	R	A	95.00%	4.06	0.475	0	0	2	0	2	1,998.89	383	402	TRUE	
SNU216LR_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	5	6	8	0.05%	16.10%	GVDEQSDSSEESEEEKPPEEDKEEEEEK	K	K	95.00%	4.28	0.579	0	0	2	0	2	3,492.22	300	327	TRUE	
SNU216LR_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	5	6	8	0.05%	16.10%	IHDLEDDLEMSSDASDASGEEGGR	R	V	95.00%	5.23	0.554	0	1	1	0	2	2,615.01	207	230	TRUE	
SNU216LR_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	5	6	8	0.05%	16.10%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	5.8	0.595	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216LR_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	5	6	8	0.05%	16.10%	KAPTPQEK	K	K	94.10%	1.67	0.312	0	1	0	0	2	978.4658	328	335	TRUE	
SNU216LR_PC3_01	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	4	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.34	0.31	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216LR_PC3_01	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	4	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	3.69	0.419	0	1	2	0	2	2,056.96	75	92	TRUE	
SNU216LR_PC3_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.95	0.493	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC3_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	SSSVGSSSSYPISPAVSR	R	T	88.00%	3.91	0	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	12	21	0.12%	10.10%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.49	0.309	0	4	4	0	2	2,103.90	515	533	TRUE	
SNU216LR_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	12	21	0.12%	10.10%	EEPVSSGPEEAVGK	K	S	95.00%	3.44	0.535	0	1	0	0	2	1,574.60	565	578	TRUE	
SNU216LR_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	12	21	0.12%	10.10%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.28	0.389	0	2	0	0	2	1,936.80	562	578	TRUE	
SNU216LR_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	12	21	0.12%	10.10%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	3.59	0.374	0	3	0	0	2	1,984.93	561	578	TRUE	
SNU216LR_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	12	21	0.12%	10.10%	KSFSKEELMSSDLEETAGSTSIPK	K	R	92.70%	4.18	0	0	2	0	0	2	2,681.23	510	533	TRUE	
SNU216LR_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	12	21	0.12%	10.10%	KSTPKEETVNDPEEAGHR	K	S	95.00%	4.76	0.386	0	0	1	0	2	2,103.93	536	553	TRUE	
SNU216LR_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	12	21	0.12%	10.10%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.35	0	0	4	0	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	6	6	0.04%	18.30%	ERPEISPPSDFEHTIHVGFDAVTGEFTGMPE	K	L	95.00%	5.26	0.352	0	0	0	1	2	4,049.82	70	104	TRUE	
SNU216LR_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	6	6	0.04%	18.30%	FYDSNTVK	K	Q	95.00%	1.97	0.376	0	1	0	0	2	1,053.43	129	136	TRUE	
SNU216LR_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	6	6	0.04%	18.30%	GTEAPAVVTEEEDDDEETAPPVIAPRPDHTK	K	S	95.00%	6.14	0.507	0	0	1	1	2	3,395.52	161	191	TRUE	
SNU216LR_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	6	6	0.04%	18.30%	YLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.56	0.448	0	1	1	0	2	2,417.14	139	160	TRUE	
SNU216LR_PC3_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	4	0.02%	5.51%	HAIMRSPQMVSAIVR	R	T	95.00%	3.04	0.186	0	0	1	0	2	1,775.88	186	200	TRUE	
SNU216LR_PC3_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	4	0.02%	5.51%	RLSVELTSSLFR	K	T	95.00%	2.68	0.327	0	0	1	0	2	1,487.76	673	684	TRUE	
SNU216LR_PC3_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	4	0.02%	5.51%	RTSMGGTQQQFVEGVR	R	M	95.00%	4.14	0.487	0	1	1	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC3_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	9.46	0.185	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC3_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	4.24	0.48	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	5.41%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.59	0.208	0	0	1	0	2	2,279.98	667	686	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	5.41%	GSPSGGSTAEASDTLSIR	R	S	95.00%	2.91	0.323	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	5.41%	KLQLERPVSPETQADLQR	R	N	95.00%	2.65	0.271	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216LR_PC3_01	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.80%	1	1	1	0.01%	7.09%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	4.34	0.559	0	0	1	0	2	2,916.11	144	170	TRUE	
SNU216LR_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	7	8	0.05%	30.90%	DDSHSAEDSEDEKEDHK	K	N	95.00%	2.13	0.29	0	0	1	0	2	2,132.70	71	87	TRUE	
SNU216LR_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	7	8	0.05%	30.90%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	3.11	0.366	0	0	0	1	2	2,421.94	71	90	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	7	8	0.05%	30.90%	EEDEEPESPPEKK	K	T	91.30%	2.34	0.201	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	7	8	0.05%	30.90%	NSQEDSEDSEDKDVK	K	T	95.00%	4.13	0.396	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216LR_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	7	8	0.05%	30.90%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	2.01	0.299	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216LR_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	7	8	0.05%	30.90%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.73	0.232	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216LR_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	7	8	0.05%	30.90%	VVDYSQFQESDDADEDYGR	K	D	95.00%	3.95	0.489	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC3_01	Isoform 1 of Actin-like protein 6A	IPI00003627,IPI00216622	47,461.10	100.00%	1	1	1	0.01%	1.86%	EGSPANWK	R	R	93.80%	1.67	0.273	0	1	0	0	2	968.3874	231	238	TRUE	
SNU216LR_PC3_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	6	7	0.04%	10.80%	ALASEKSPTADAKPAPK	K	R	95.00%	3.25	0.415	0	1	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC3_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	6	7	0.04%	10.80%	IPSKEEEADMSSPTQR	K	T	95.00%	4.18	0.358	0	2	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC3_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	6	7	0.04%	10.80%	LEAEEGRNSLSPVQATQKPLVSK	R	K	95.00%	4.51	0.346	0	0	1	0	2	2,641.26	127	149	TRUE	
SNU216LR_PC3_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	6	7	0.04%	10.80%	NSLSPVQATQKPLVSK	R	K	95.00%	2.68	0.295	0	1	1	0	2	1,776.93	134	149	TRUE	
SNU216LR_PC3_01	Chromodomain Y-like protein	IPI00293963,IPI00480205,IP	66,482.20	99.80%	1	1	1	0.01%	1.51%	ILVPKSPVK	K	S	95.00%	1.79	0.357	0	1	0	0	2	1,060.62	196	204	TRUE	
SNU216LR_PC3_01	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.88	0.452	0	1	0	0	2	1,617.62	79	92	TRUE	
SNU216LR_PC3_01	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.75	0.396	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216LR_PC3_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	2	2	0.01%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	3.62	0.5	0	1	0	0	2	2,304.83	162	180	TRUE	
SNU216LR_PC3_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	2	2	0.01%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	5	0.265	0	1	0	0	2	1,999.83	181	198	TRUE	
SNU216LR_PC3_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00292000,IPI00657721	55,457.40	99.90%	2	2	2	0.01%	3.61%	QSVVYGGKSTIR	K	D	90.20%	2.25	0.204	0	1	0	0	2	1,374.68	431	442	TRUE	
SNU216LR_PC3_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00292000,IPI00657721	55,457.40	99.90%	2	2	2	0.01%	3.61%	SGLMST	K	-	86.00%	1.06	0.424	1	0	0	0	2	675.242	494	499	TRUE	
SNU216LR_PC3_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	6	0.04%	6.08%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	3.94	0.597	0	1	2	0	2	2,669.00	89	113	TRUE	
SNU216LR_PC3_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	6	0.04%	6.08%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	4.65	0.396	0	0	1	0	2	2,797.10	89	114	TRUE	
SNU216LR_PC3_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	6	0.04%	6.08%	GNDSDGEGESDDPEKK	K	K	95.00%	3.54	0.484	0	1	0	0	2	1,758.63	99	114	TRUE	
SNU216LR_PC3_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	6	0.04%	6.08%	GNDSDGEGESDDPEKKK	K	L	95.00%	3.02	0.426	0	1	0	0	2	1,886.73	99	115	TRUE	
SNU216LR_PC3_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	5	0.03%	5.63%	DRDYSDHPSGGSYR	R	D	95.00%	2.74	0.346	0	0	1	0	2	1,691.64	269	282	TRUE	
SNU216LR_PC3_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	5	0.03%	5.63%	GLPPSMER	R	G	95.00%	2.09	0.346	0	4	0	0	2	966.4116	348	355	TRUE	
SNU216LR_PC3_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.04%	9.67%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	5.94	0.6	0	1	4	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC3_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.04%	9.67%	SSSSSSQPEHSAMLVSTAASPSLIK	K	E	95.00%	3.7	0.314	0	0	1	0	2	2,569.19	290	314	TRUE	
SNU216LR_PC3_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.04%	9.67%	SSTPLPTISSSAENTR	R	Q	95.00%	2.69	0.18	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216LR_PC3_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.02%	7.90%	EEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.61	0.374	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC3_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.02%	7.90%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.88	0.444	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216LR_PC3_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.02%	7.90%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.62	0.525	0	0	0	1	2	4,198.92	226	261	TRUE	
SNU216LR_PC3_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.90%	2	2	2	0.01%	3.35%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	3.34	0.13	0	1	0	0	2	2,170.00	580	599	TRUE	
SNU216LR_PC3_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.90%	2	2	2	0.01%	3.35%	GPPQSPVFEGVYNNSR	K	M	95.00%	3.23	0.503	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC3_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	1	1	1	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	95.00%	2.78	0.211	0	0	1	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC3_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.90%	2	4	4	0.02%	8.48%	RPDPDSDEDEDYER	R	E	95.00%	4.01	0.623	0	1	1	0	2	1,817.65	57	70	TRUE	
SNU216LR_PC3_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.90%	2	4	4	0.02%	8.48%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	3.98	0.506	0	1	1	0	2	2,052.92	129	148	TRUE	
SNU216LR_PC3_01	Isoform 1 of YTH domain protein 2	IPI00306043,IPI00377091	61,192.40	99.80%	1	1	1	0.01%	2.94%	DGLNDDDFEPYLSPQAR	K	P	95.00%	2.76	0.328	0	1	0	0	2	2,031.83	27	43	TRUE	
SNU216LR_PC3_01	GTP binding protein 1	IPI00010463	72,454.50	99.70%	2	3	3	0.02%	6.13%	LLQTTNNSPMNSKPQQIK	K	M	94.30%	2.65	0.228	0	0	1	0	2	2,122.04	573	590	TRUE	
SNU216LR_PC3_01	GTP binding protein 1	IPI00010463	72,454.50	99.70%	2	3	3	0.02%	6.13%	SAMDSPVPASMFAPEPSSPGAAR	R	A	95.00%	6.1	0.614	0	1	1	0	2	2,340.00	8	30	TRUE	
SNU216LR_PC3_01	pyruvate kinase 3 isoform 1	IPI00479186	57,937.50	100.00%	1	1	1	0.01%	2.07%	LDIDSPPITAR	R	N	88.70%	2.23	0.162	0	0	1	0	2	1,277.61	33	43	TRUE	
SNU216LR_PC3_01	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	99.70%	2	2	2	0.01%	5.94%	NYSVGSRPLKPLSPLR	R	A	94.90%	2.57	0.192	0	0	1	0	2	1,863.98	481	496	TRUE	
SNU216LR_PC3_01	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	99.70%	2	2	2	0.01%	5.94%	RNSFTPLSSSNTIR	R	R	95.00%	3	0.361	0	1	0	0	2	1,659.79	464	477	TRUE	
SNU216LR_PC3_01	Calmin	IPI00101942	111,652.50	99.80%	2	2	2	0.01%	4.79%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	4.46	0.384	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216LR_PC3_01	Calmin	IPI00101942	111,652.50	99.80%	2	2	2	0.01%	4.79%	HDEESHSLSPPGENTVMADSFQIK	K	V	95.00%	3.8	0.42	0	0	1	0	2	2,735.17	518	541	TRUE	
SNU216LR_PC3_01	Septin-2	IPI00014177	41,488.20	100.00%	1	3	3	0.02%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.55	0.402	0	1	1	1	2	2,517.05	210	229	TRUE	
SNU216LR_PC3_01	Isoform 1 of CCR4-NOT transcription complex sul	IPI00005011,IPI00017733,IP	54,307.20	99.50%	2	2	2	0.01%	8.33%	SLSQGTQLPSHVTPTTGVPTMSLHTPPSPSR	R	G	92.30%	5.25	0.0585	0	0	0	1	2	3,278.59	99	129	TRUE	
SNU216LR_PC3_01	Isoform 1 of CCR4-NOT transcription complex sul	IPI00005011,IPI00017733,IP	54,307.20	99.50%	2	2	2	0.01%	8.33%	TNSMSSSGLGSPNR	R	S	94.10%	2.93	0.119	0	1	0	0	2	1,474.60	155	168	TRUE	
SNU216LR_PC3_01	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	4	0.02%	10.20%	GLGPPSPPAPPR	K	G	95.00%	2.29	0.463	0	2	0	0	2	1,222.60	90	101	TRUE	
SNU216LR_PC3_01	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	4	0.02%	10.20%	KPSLVSDLPWEGAAPQSPSFSGSEDSGSPK	K	H	95.00%	6.14	0.0825	0	0	1	0	2	3,124.42	206	235	TRUE	
SNU216LR_PC3_01	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	4	0.02%	10.20%	SPSLGSDLTFATR	R	T	89.00%	2.15	0.21	0	1	0	0	2	1,431.65	393	405	TRUE	
SNU216LR_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	6	8	8	0.05%	23.90%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	2.87	0.339	0	0	1	0	2	2,506.85	272	293	TRUE	
SNU216LR_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	6	8	8	0.05%	23.90%	EAEEGEDDRDSANGEDDS	K	-	95.00%	1.75	0.452	0	0	1	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	6	8	8	0.05%	23.90%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	5.14	0.545	0	1	1	0	2	2,778.97	238	262	TRUE	
SNU216LR_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	6	8	8	0.05%	23.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	5.81	0.538	0	0	1	0	2	3,790.49	238	271	TRUE	
SNU216LR_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	6	8	8	0.05%	23.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	7.4	0.576	0	0	1	1	2	4,277.68	238	275	TRUE	
SNU216LR_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	6	8	8	0.05%	23.90%	NDKSEEEQSSSSVK	K	K	95.00%	3.58	0.517	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216LR_PC3_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	4	4	4	0.02%	11.60%	KEPDDSRDEDEDEDESSEEDSEDEEPPPK	K	R	95.00%	2.79	0.259	0	0	1	0	2	3,618.19	426	454	TRUE	
SNU216LR_PC3_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	4	4	4	0.02%	11.60%	NRSSAVDPEPQVK	K	L	95.00%	2.73	0.177	0	1	0	0	2	1,506.69	246	258	TRUE	
SNU216LR_PC3_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	4	4	4	0.02%	11.60%	QTPMASSPRPK	K	M	93.30%	1.93	0.266	0	1	0	0	2	1,279.59	150	160	TRUE	
SNU216LR_PC3_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	4	4	4	0.02%	11.60%	TVNSTRETPPK	R	S	95.00%	2.1	0.26	0	1	0	0	2	1,309.61	44	54	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 2 subunit 3	IPI00297982	50,979.00	100.00%	1	2	2	0.01%	7.01%	ESQAKEQYEQILAFVQGTVAEGAPIIPISAQL	K	Y	95.00%	3.82	0.241	0	0	1	1	2	3,716.82	196	228	TRUE	
SNU216LR_PC3_01	Leucine-rich repeat-containing protein 47	IPI00170935	63,474.80	100.00%	1	1	1	0.01%	4.80%	EEGSLSDTEADAVSGQLPDPTTNPSAGK	K	D	95.00%	5.18	0.489	0	0	1	0	2	2,853.23	515	542	TRUE	
SNU216LR_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	13	0.08%	28.60%	AGLGSPERPPK	R	T	95.00%	2.25	0.266	0	2	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	13	0.08%	28.60%	AGLGSPERPPKTSPGSPR	R	L	95.00%	3.32	0.488	0	0	1	0	2	1,870.92	54	71	TRUE	
SNU216LR_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	13	0.08%	28.60%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	4.19	0.305	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216LR_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	13	0.08%	28.60%	LGGLRPESPESLTSVSR	R	T	95.00%	3.16	0.264	0	0	1	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	13	0.08%	28.60%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	6.34	0.578	0	2	2	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	13	0.08%	28.60%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	3.24	0.366	0	1	2	0	2	2,681.14	95	115	TRUE	
SNU216LR_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	13	0.08%	28.60%	RALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.75	0.385	0	0	0	1	2	2,791.30	30	53	TRUE	
SNU216LR_PC3_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	99.80%	2	2	2	0.01%	2.49%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.19	0.178	0	0	1	0	2	2,366.08	1320	1340	TRUE	
SNU216LR_PC3_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	99.80%	2	2	2	0.01%	2.49%	VPDEEENEESDNEKETEK	K	S	95.00%	3.32	0.4	0	1	0	0	2	2,229.86	1178	1195	TRUE	
SNU216LR_PC3_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPR	K	R	95.00%	2.55	0.488	0	1	0	0	2	1,823.79	175	190	TRUE	
SNU216LR_PC3_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	EVQAEQPSSSSPR	R	R	95.00%	2.95	0.415	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216LR_PC3_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	EVQAEQPSSSSPRR	R	K	95.00%	2.38	0.254	0	1	0	0	2	1,637.73	178	191	TRUE	
SNU216LR_PC3_01	Histone H1.4	IPI00217467	21,735.70	100.00%	3	4	4	0.02%	15.60%	KASGPPVSELITK	R	A	95.00%	2.88	0.319	0	1	0	0	2	1,406.73	33	45	TRUE	IPI00217466

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Histone H1.4	IPI00217467	21,735.70	100.00%	3	4	4	0.02%	15.60%	SETAPAAPAAPAPAEKTPVK	-	K	95.00%	4.43	0.494	0	1	1	0	2	1,983.98	1	20	TRUE	
SNU216LR_PC3_01	Histone H1.4	IPI00217467	21,735.70	100.00%	3	4	4	0.02%	15.60%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	3.86	0.431	0	0	1	0	2	2,112.07	1	21	TRUE	
SNU216LR_PC3_01	Isoform 1 of Cisplatin resistance-associated overe	IPI00107745	51,467.10	100.00%	1	2	3	0.02%	5.56%	ESDTKNEVNGTSEDIKSEGDTQSN	K	-	95.00%	3.79	0.322	0	1	2	0	2	2,664.08	409	432	TRUE	
SNU216LR_PC3_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	3	3	0.02%	3.35%	RPNEDSDEDEEK	K	G	95.00%	2.61	0.305	0	1	0	0	2	1,542.56	686	697	TRUE	
SNU216LR_PC3_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	3	3	0.02%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	5.02	0.482	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216LR_PC3_01	Peroxisomal multifunctional enzyme type 2	IPI00019912	79,557.30	100.00%	1	1	1	0.01%	3.13%	VVKTALDAFGRIDVVVNNAGILR	K	D	83.90%	2.32	0.222	0	0	1	0	2	2,520.37	81	103	TRUE	
SNU216LR_PC3_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	3	4	0.02%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	3.26	0.507	0	1	0	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC3_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	3	4	0.02%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	91.80%	3.51	0.159	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216LR_PC3_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	3	4	0.02%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	2.65	0.506	0	2	0	0	2	1,585.72	253	267	TRUE	
SNU216LR_PC3_01	EPB41L5 protein	IPI00217841,IPI00376221	57,886.50	99.70%	1	1	1	0.01%	6.53%	SALPVSPSISSAPVPVEIENLPQSPGTDQHDI	R	W	95.00%	4.68	0.22	0	0	0	1	2	3,532.73	413	445	TRUE	
SNU216LR_PC3_01	Sperm-associated antigen 1	IPI00292326	103,999.60	99.80%	2	2	2	0.01%	4.63%	GQTPEAGADKRSPR	R	R	95.00%	2.22	0.309	0	1	0	0	2	1,549.71	407	420	TRUE	
SNU216LR_PC3_01	Sperm-associated antigen 1	IPI00292326	103,999.60	99.80%	2	2	2	0.01%	4.63%	RASAAAAAGGGATGHPGGGQGAENPAGL	R	S	95.00%	4.2	0.398	0	0	1	0	2	2,539.18	421	449	TRUE	
SNU216LR_PC3_01	Nuclear factor 1 A-type	IPI00029745,IPI00163319,IP	54,620.20	100.00%	3	3	3	0.02%	9.23%	LKSVEDEMDSPGEEPFYTGQGR	R	S	95.00%	2.91	0.302	0	0	1	0	2	2,631.04	278	299	TRUE	
SNU216LR_PC3_01	Nuclear factor 1 A-type	IPI00029745,IPI00163319,IP	54,620.20	100.00%	3	3	3	0.02%	9.23%	SPGSGSQSSGWHEVEPGMPSPTTLK	R	K	95.00%	2.95	0.268	0	0	1	0	2	2,620.14	300	324	TRUE	
SNU216LR_PC3_01	Nuclear factor 1 A-type	IPI00029745,IPI00163319,IP	54,620.20	100.00%	3	3	3	0.02%	9.23%	SVEDEMDSPGEEPFYTGQGR	K	S	95.00%	4.03	0.571	0	1	0	0	2	2,309.89	280	299	TRUE	
SNU216LR_PC3_01	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	4	0.02%	11.30%	EVDPSTGELQSLQMPESEGPSSLDPSQEGP	K	E	88.90%	6.31	0.0432	0	0	1	0	2	3,622.60	347	380	TRUE	
SNU216LR_PC3_01	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	4	0.02%	11.30%	LTPVSPESSSTEEK	R	S	95.00%	2.25	0.231	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216LR_PC3_01	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	4	0.02%	11.30%	SRLTPVSPESSSTEEK	R	S	95.00%	4.04	0.388	0	2	0	0	2	1,813.82	266	281	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.37	0.25	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	3.27	0.222	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216LR_PC3_01	Heat shock protein 60	IPI00472102	61,213.90	100.00%	1	1	1	0.01%	2.09%	TVIIEQSWGSPK	R	V	95.00%	2.99	0.22	0	1	0	0	2	1,424.68	61	72	TRUE	
SNU216LR_PC3_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	7	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.14	0.241	0	1	1	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC3_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	7	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.53	0.248	0	0	3	2	2	3,082.36	191	217	TRUE	
SNU216LR_PC3_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.69%	MKTPVQYSQQQNSPQK	K	H	90.20%	2.92	0.217	0	0	1	0	2	2,051.87	345	360	TRUE	
SNU216LR_PC3_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.69%	MTSLETKTSDTETEPSK	K	T	90.90%	2.85	0.16	0	1	0	0	2	1,964.84	851	867	TRUE	
SNU216LR_PC3_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.69%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	5.25	0.507	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC3_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.69%	TPVQYSQQQNSPQK	K	H	95.00%	3.69	0.317	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC3_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	99.80%	2	2	2	0.01%	4.56%	ENHGQADHSPSMTATHFPR	R	V	95.00%	4.12	0.389	0	0	1	0	2	2,199.90	254	272	TRUE	
SNU216LR_PC3_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	99.80%	2	2	2	0.01%	4.56%	TESEVPPRPASPK	R	V	95.00%	2.91	0.474	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216LR_PC3_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	7.00%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.67	0.138	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216LR_PC3_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	7.00%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.77	0.144	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216LR_PC3_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	3	4	4	0.02%	10.80%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	5.47	0.509	0	0	1	0	2	2,990.20	334	361	TRUE	
SNU216LR_PC3_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	3	4	4	0.02%	10.80%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	4.06	0.296	0	0	1	0	2	3,118.29	334	362	TRUE	
SNU216LR_PC3_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	3	4	4	0.02%	10.80%	GGRSPDEVTLTSIVPTR	K	D	95.00%	2.93	0.301	0	1	1	0	2	1,864.92	317	333	TRUE	
SNU216LR_PC3_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	99.50%	2	2	2	0.01%	2.45%	KGSDDAPYSPTAR	R	V	89.30%	1.95	0.245	0	1	0	0	2	1,444.61	897	909	TRUE	
SNU216LR_PC3_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	99.50%	2	2	2	0.01%	2.45%	RPSASSPNNNTAAK	R	G	95.00%	3	0.464	0	1	0	0	2	1,494.67	1059	1072	TRUE	
SNU216LR_PC3_01	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	99.90%	1	1	2	0.01%	5.31%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	7.19	0.524	0	2	0	0	2	2,394.07	428	451	TRUE	
SNU216LR_PC3_01	THO complex subunit 1	IPI00305374	75,668.80	100.00%	2	2	2	0.01%	5.02%	ELPPPSEEIKTGEDEDEEDNDALLKENESPD\	K	R	83.70%	3.42	0.174	0	0	1	0	2	3,818.67	532	564	TRUE	
SNU216LR_PC3_01	THO complex subunit 1	IPI00305374	75,668.80	100.00%	2	2	2	0.01%	5.02%	TGEDEDEEDNDALLKENESPDVR	K	R	95.00%	4.24	0.386	0	0	1	0	2	2,699.08	542	564	TRUE	
SNU216LR_PC3_01	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	99.80%	2	3	3	0.02%	5.44%	EKGSETDSAQDQPVK	K	M	95.00%	2.9	0.431	0	1	0	0	2	1,698.72	66	80	TRUE	
SNU216LR_PC3_01	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	99.80%	2	3	3	0.02%	5.44%	GGLSPANDTGAK	R	K	95.00%	2.39	0.382	1	1	0	0	2	1,167.50	44	55	TRUE	
SNU216LR_PC3_01	69 kDa protein	IPI00172590,IPI00658145	69,317.70	100.00%	1	1	1	0.01%	2.17%	GSPNTASAEATLPR	R	W	95.00%	2.74	0.449	0	1	0	0	2	1,451.65	566	579	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.42	0.5	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	FKAEAPLPSPK	K	L	95.00%	2.73	0.185	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	GGVTGSPEASISGSK	K	G	95.00%	2.67	0.31	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	GHYEVTGSDDETGK	K	L	95.00%	2.73	0.555	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	GKGGVTGSPEASISGSK	K	G	95.00%	3.75	0.11	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	ISAPNVDFNLEGPK	R	V	95.00%	2.64	0.365	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	ISMQDVDLSLGSPK	K	L	95.00%	2.61	0.28	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	SKGHYEVTGSDDETGK	K	L	95.00%	3.1	0.323	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	85.80%	4.95	0.0579	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	SNSFSDER	R	E	95.00%	2.21	0.427	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	11	11	13	0.08%	4.09%	VKTPEMIIQKPK	K	I	95.00%	2.26	0.218	0	1	0	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC3_01	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	5.31%	LPEASQSPLVLK	R	Q	95.00%	2.69	0.344	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216LR_PC3_01	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	5.31%	SNMSPHGLPAR	R	S	95.00%	2.39	0.233	0	0	1	0	2	1,246.54	446	456	TRUE	
SNU216LR_PC3_01	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	5.31%	VAPVINNGSPTILGK	K	R	95.00%	2.77	0.32	0	1	0	0	2	1,559.82	568	582	TRUE	
SNU216LR_PC3_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	4	5	5	0.03%	6.80%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	5.95	0.442	0	0	1	0	2	3,188.48	642	669	TRUE	
SNU216LR_PC3_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	4	5	5	0.03%	6.80%	NLIDSMDQSAFAGFSFVNPK	K	F	95.00%	3.83	0.363	0	1	0	0	2	2,268.00	650	669	TRUE	
SNU216LR_PC3_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	4	5	5	0.03%	6.80%	RSDSASSEPVGIYQGFEK	R	K	95.00%	4.92	0.381	0	1	1	0	2	2,036.90	301	318	TRUE	
SNU216LR_PC3_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	4	5	5	0.03%	6.80%	SDSASSEPVGIYQGFEK	R	K	95.00%	3.2	0.364	0	1	0	0	2	1,880.80	302	318	TRUE	
SNU216LR_PC3_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	2.68	0.349	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC3_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	NEGSESAPEQAQQR	K	R	95.00%	3.04	0.356	0	1	0	0	2	1,667.67	170	184	TRUE	
SNU216LR_PC3_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	NYQQNYQNSESGEK	R	N	95.00%	2.64	0.26	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216LR_PC3_01	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	100.00%	1	2	2	0.01%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	3.39	0.468	0	1	1	0	2	1,586.78	68	81	TRUE	
SNU216LR_PC3_01	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	2	3	3	0.02%	2.96%	VNLEESSGVENSPAGAR	R	P	95.00%	4.06	0.353	0	1	0	0	2	1,795.79	291	307	TRUE	
SNU216LR_PC3_01	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	2	3	3	0.02%	2.96%	VNLEESSGVENSPAGARPK	R	R	95.00%	4.62	0.455	0	1	1	0	2	2,020.93	291	309	TRUE	
SNU216LR_PC3_01	56 kDa protein	IPI00337602,IPI00373877	55,569.20	99.90%	1	1	1	0.01%	2.84%	SPTKTDPKNEEEEK	K	R	95.00%	3.32	0.478	0	1	0	0	2	1,711.74	181	194	TRUE	
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	EDTDHEEKASNEDVTK	K	A	95.00%	2.43	0.278	0	0	1	0	2	1,926.76	120	135	TRUE	
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	ETSVSKEDTDHEEK	K	A	95.00%	3.27	0.301	0	1	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.84	0.36	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	QSNASSDVEVEEK	K	E	95.00%	2.08	0.253	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	3.6	0.333	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	QVETEEAGVVTTATASVNLKVSPK	K	R	95.00%	6.15	0.0727	0	0	1	0	2	2,538.27	156	179	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	TGVTSTSDSEEEGDDQEGEK	K	K	83.70%	3.69	0.0053	0	1	0	0	2	2,179.80	267	286	TRUE	
SNU216LR_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	8	10	10	0.06%	15.10%	TGVTSTSDSEEEGDDQEGEKK	K	R	81.80%	3.44	0.0236	0	1	0	0	2	2,387.87	267	287	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	2	2	2	0.01%	12.60%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	4.8	0.474	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	2	2	2	0.01%	12.60%	KKDASDDLDDLNFFNQK	R	K	95.00%	3.85	0.183	0	0	1	0	2	2,092.92	63	79	TRUE	
SNU216LR_PC3_01	EH-domain-containing protein 1	IPI00017184	60,629.10	100.00%	1	2	2	0.01%	3.37%	DKPTYDEIFYTLSPVNGK	K	I	95.00%	3.38	0.394	0	1	1	0	2	2,167.00	444	461	TRUE	
SNU216LR_PC3_01	Membrane-associated tyrosine- and threonine-sp	IPI00384765,IPI00742852	54,520.80	99.40%	2	2	2	0.01%	8.22%	DALDLSDINSEPPR	R	G	95.00%	2.69	0.294	0	1	0	0	2	1,621.71	464	477	TRUE	
SNU216LR_PC3_01	Membrane-associated tyrosine- and threonine-sp	IPI00384765,IPI00742852	54,520.80	99.40%	2	2	2	0.01%	8.22%	GEASETLQSPGYDPSRPESFFQQSFQR	R	L	88.50%	3.2	0.148	0	0	1	0	2	3,155.37	86	112	TRUE	
SNU216LR_PC3_01	Torsin-1A-interacting protein 2	IPI00168878	51,263.10	100.00%	1	1	2	0.01%	5.32%	GHHLPSENLGKEPLDPDPSHSPSDK	K	V	95.00%	4.86	0.423	0	0	0	2	2	2,770.25	100	124	TRUE	
SNU216LR_PC3_01	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	2	2	2	0.01%	2.78%	LQAKESPQR	R	K	95.00%	1.94	0.274	0	1	0	0	2	1,136.55	72	80	TRUE	
SNU216LR_PC3_01	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	2	2	2	0.01%	2.78%	SGGNEVSIEER	K	L	95.00%	2.74	0.415	0	1	0	0	2	1,256.52	431	441	TRUE	
SNU216LR_PC3_01	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	4	5	5	0.03%	9.01%	KADGEDAGAESNEEAPGEPSAGSSEEAPGE	R	S	95.00%	5.97	0.125	0	0	1	0	2	4,208.68	93	135	TRUE	
SNU216LR_PC3_01	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	4	5	5	0.03%	9.01%	RKADGEDAGAESNEEAPGEPSAGSSEEAPG	R	S	95.00%	4.35	0.34	0	0	0	1	2	4,364.78	92	135	TRUE	
SNU216LR_PC3_01	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	4	5	5	0.03%	9.01%	RVNDAEPGSPEAPQGK	R	R	95.00%	3.06	0.437	0	1	1	0	2	1,731.77	75	90	TRUE	
SNU216LR_PC3_01	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	4	5	5	0.03%	9.01%	VNDAEPGSPEAPQGK	R	R	95.00%	3.11	0.442	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216LR_PC3_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.83	0.48	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216LR_PC3_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	KRVSVELTNSLFK	K	H	95.00%	3.45	0.211	0	1	1	0	2	1,600.85	660	672	TRUE	
SNU216LR_PC3_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	RVSVELTNSLFK	K	H	95.00%	2.69	0.364	0	1	1	0	2	1,472.75	661	672	TRUE	
SNU216LR_PC3_01	Pre-mRNA-splicing factor PRP17	IPI00026307	65,522.00	99.30%	1	1	1	0.01%	3.63%	SPSSKPSLAVAVDSAPEVAVK	K	E	86.20%	3.32	0.184	0	0	1	0	2	2,119.07	43	63	TRUE	
SNU216LR_PC3_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	3	3	4	0.02%	7.18%	DISMEIDSPENMMR	R	H	95.00%	2.79	0.354	0	1	0	0	2	1,747.67	247	260	TRUE	
SNU216LR_PC3_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	3	3	4	0.02%	7.18%	LDQPVSAPPSPR	K	D	95.00%	2.89	0.375	0	2	0	0	2	1,343.64	235	246	TRUE	
SNU216LR_PC3_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	3	3	4	0.02%	7.18%	TVSSPIPYTPSPSSSR	R	P	95.00%	3.01	0.458	0	1	0	0	2	1,742.80	349	364	TRUE	
SNU216LR_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.02%	6.24%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.76	0.522	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.02%	6.24%	LNFDMTASPK	K	I	89.30%	2.07	0.185	0	1	0	0	2	1,203.51	418	427	TRUE	
SNU216LR_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.02%	6.24%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.1	0.23	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216LR_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.02%	6.24%	TGQAGSLSGSPKPFSPQLSAPITTK	K	T	95.00%	3.4	0.251	0	0	1	0	2	2,537.27	500	524	TRUE	
SNU216LR_PC3_01	Methylosome subunit pICln	IPI00004795	26,215.40	99.80%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	5.91	0.531	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216LR_PC3_01	Glutamate-rich protein 1	IPI00329142	48,984.70	99.80%	2	2	2	0.01%	5.87%	ARQEEGADASEEDPTPAGEEDVKDAR	R	E	95.00%	3.79	0.244	0	0	1	0	2	2,852.19	245	270	TRUE	
SNU216LR_PC3_01	Glutamate-rich protein 1	IPI00329142	48,984.70	99.80%	2	2	2	0.01%	5.87%	QEEGADASEEDPTPAGEEDVKDAR	R	E	95.00%	4.52	0.492	0	0	1	0	2	2,625.05	247	270	TRUE	
SNU216LR_PC3_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	AGGLDWPEATEVSPSR	R	T	95.00%	3.68	0.47	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC3_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.56	0.458	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216LR_PC3_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.04	0.213	0	0	1	0	2	2,142.05	308	326	TRUE	
SNU216LR_PC3_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	4.43	0.372	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216LR_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	5	6	0.04%	8.27%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	5.33	0.356	0	0	2	0	2	2,373.03	234	253	TRUE	
SNU216LR_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	5	6	0.04%	8.27%	DNSPEPNDPEEPQEVSSTPSDK	R	K	95.00%	3.67	0.371	0	1	0	0	2	2,477.98	254	275	TRUE	
SNU216LR_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	5	6	0.04%	8.27%	DNSPEPNDPEEPQEVSSTPSDKK	R	G	95.00%	4.15	0.388	0	0	1	0	2	2,606.08	254	276	TRUE	
SNU216LR_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	5	6	0.04%	8.27%	RVTQGAASPGHGIQEK	R	L	95.00%	3.23	0.299	0	0	1	0	2	1,715.82	373	388	TRUE	
SNU216LR_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	5	6	0.04%	8.27%	VTQGAASPGHGIQEK	R	L	95.00%	2.86	0.34	0	1	0	0	2	1,559.72	374	388	TRUE	
SNU216LR_PC3_01	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	2	3	4	0.02%	4.93%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.19	0.432	0	0	1	1	2	2,450.06	90	113	TRUE	
SNU216LR_PC3_01	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	2	3	4	0.02%	4.93%	KTPEGRASPAPGSGHPEGPGAHLDMNSLD	R	A	95.00%	4.93	0.388	0	0	0	2	2	3,198.38	84	113	TRUE	
SNU216LR_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	5	0.03%	9.07%	DYDDMSPR	R	R	95.00%	1.15	0.34	1	0	0	0	2	1,094.35	279	286	TRUE	
SNU216LR_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	5	0.03%	9.07%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.51	0.237	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	5	0.03%	9.07%	IILDLISESPIKGR	K	A	95.00%	3.05	0.346	0	1	1	0	2	1,633.89	208	221	TRUE	
SNU216LR_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	5	0.03%	9.07%	RDYDDMSPR	R	R	95.00%	1.99	0.335	1	0	0	0	2	1,234.46	278	286	TRUE	
SNU216LR_PC3_01	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	1	1	1	0.01%	7.93%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	4.6	0.471	0	1	0	0	2	2,575.01	239	266	TRUE	
SNU216LR_PC3_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	4	4	4	0.02%	7.30%	ETPSEEEQAQK	R	Q	95.00%	2.24	0.359	0	1	0	0	2	1,355.54	361	371	TRUE	
SNU216LR_PC3_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	4	4	4	0.02%	7.30%	NQGIEGSPGGR	R	V	95.00%	2.06	0.333	0	1	0	0	2	1,151.48	187	197	TRUE	
SNU216LR_PC3_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	4	4	4	0.02%	7.30%	SPPTQVAISSDSAR	R	K	95.00%	3.06	0.368	0	1	0	0	2	1,495.68	201	214	TRUE	
SNU216LR_PC3_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	4	4	4	0.02%	7.30%	VTRSPPTQVAISSDSAR	R	K	95.00%	3.95	0.32	0	0	1	0	2	1,851.90	198	214	TRUE	
SNU216LR_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.49	0.407	0	2	1	0	2	2,093.93	360	377	TRUE	
SNU216LR_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.8	0.293	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	81.70%	2.95	0.148	0	0	1	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	3.23	0.405	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.22	0.184	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	GSPTSAYPER	K	K	95.00%	1.68	0.296	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	HGSDPAFAPGPR	R	G	95.00%	2.92	0.467	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	RGSLTLTISGESPK	R	A	95.00%	3.09	0.342	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	RGSPVPPVPER	R	R	95.00%	2.27	0.287	0	1	1	0	2	1,270.63	912	922	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	RLSLGQGDSTEAATEER	R	G	95.00%	4.09	0.455	0	0	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	RMEDEGGFPVPQENGQPESPRR	R	L	85.40%	2.67	0.196	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	2.91	0.278	0	0	1	0	2	2,639.07	4	25	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	RSSPVPPVPERR	R	G	95.00%	2.44	0.248	0	0	1	0	2	1,456.74	923	934	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.06%	12.90%	SSPVPPVPER	R	R	95.00%	2.32	0.314	0	1	0	0	2	1,144.54	924	933	TRUE	
SNU216LR_PC3_01	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	3	0.02%	6.02%	GDSESEEDELEVPVPSR	K	F	95.00%	3.98	0.521	0	1	0	0	2	2,148.79	75	92	TRUE	
SNU216LR_PC3_01	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	3	0.02%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	2.63	0.294	0	1	1	0	2	2,633.05	70	92	TRUE	
SNU216LR_PC3_01	PREDICTED: similar to basic leucine zipper and W	IPI00005681	34,091.00	99.80%	1	1	2	0.01%	4.70%	NAEEESESEAEEGD	K	-	95.00%	2.06	0.413	0	2	0	0	2	1,604.51	285	298	TRUE	
SNU216LR_PC3_01	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	98.60%	1	1	1	0.01%	1.18%	NAPAAVDEGSISPR	R	T	95.00%	3.08	0.471	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	5	9	0.05%	8.76%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.68	0.495	0	2	4	0	2	2,586.99	308	328	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	5	9	0.05%	8.76%	NATSPQVQRPSFMDYFDK	R	Q	93.50%	3.04	0.157	0	1	1	0	2	2,210.96	382	399	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	5	9	0.05%	8.76%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.39	0.47	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216LR_PC3_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	3	3	4	0.02%	12.10%	DPDSNPYSLLDNTESDQTADTDASESHHST	K	R	95.00%	7.89	0.0066	0	0	1	0	2	3,599.43	471	502	TRUE	
SNU216LR_PC3_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	3	3	4	0.02%	12.10%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	5.81	0.357	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216LR_PC3_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	3	3	4	0.02%	12.10%	SSISSVLKDPDSNPYSLLDNTESDQTADTDA	K	R	95.00%	8.28	0.0148	0	0	0	1	2	4,400.89	463	502	TRUE	
SNU216LR_PC3_01	REST corepressor 1	IPI00008531	53,028.00	100.00%	3	4	5	0.03%	10.80%	EREESEDELEEANGNNPIDIEVDQNK	R	E	95.00%	6.28	0.457	0	1	2	0	2	3,095.30	253	278	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	REST corepressor 1	IPI00008531	53,028.00	100.00%	3	4	5	0.03%	10.80%	EREESEDELEEANGNNPIDIEVDQNKESK	R	K	95.00%	6.07	0.443	0	0	1	0	2	3,439.47	253	281	TRUE	
SNU216LR_PC3_01	REST corepressor 1	IPI00008531	53,028.00	100.00%	3	4	5	0.03%	10.80%	RSQERDNLGMLVWSPNQNLSEAK	R	L	95.00%	4.33	0.364	0	0	1	0	2	2,752.29	123	145	TRUE	
SNU216LR_PC3_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	2.66	0.288	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216LR_PC3_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	4.78	0.443	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	2	2	3	0.02%	5.31%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.94	0.632	0	2	0	0	2	2,555.89	331	351	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	2	2	3	0.02%	5.31%	TEDGGWEWSDDEFDEESEEGKAAISQLR	K	S	95.00%	5.62	0.544	0	0	1	0	2	3,295.32	331	358	TRUE	
SNU216LR_PC3_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	3	0.02%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.6	0.419	0	0	2	0	2	1,921.87	294	311	TRUE	
SNU216LR_PC3_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	3	0.02%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	6.36	0.576	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216LR_PC3_01	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	1	1	1	0.01%	5.04%	LSLEGDHSTPPSAYGSVK	K	A	95.00%	4.45	0.036	0	1	0	0	2	1,924.87	29	46	TRUE	
SNU216LR_PC3_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	5	9	0.05%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	3.74	0.326	0	1	1	0	2	1,548.75	298	311	TRUE	
SNU216LR_PC3_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	5	9	0.05%	3.80%	SGPKPFSAPKPQTSPSPK	K	R	95.00%	4.29	0.428	0	3	3	1	2	1,997.91	294	311	TRUE	
SNU216LR_PC3_01	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.80%	2	4	5	0.03%	8.96%	IAAPELHKGDSDSEEDEPTK	K	K	95.00%	3.27	0.301	0	2	1	0	2	2,327.93	147	166	TRUE	
SNU216LR_PC3_01	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.80%	2	4	5	0.03%	8.96%	QITQEEDDSDEEVAPENFFSLPEK	K	A	95.00%	4.66	0.443	0	1	1	0	2	2,876.20	259	282	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	8	10	0.06%	10.40%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	4.36	0.422	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	8	10	0.06%	10.40%	RSPVSTRPLPSASQK	R	A	95.00%	2.75	0.248	0	1	0	0	2	1,690.86	215	229	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	8	10	0.06%	10.40%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	4.81	0.521	0	1	2	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	8	10	0.06%	10.40%	SSPQLDPLR	R	K	95.00%	1.78	0.283	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	8	10	0.06%	10.40%	SSPQLDPLRK	R	S	95.00%	2.19	0.302	0	1	1	0	2	1,220.60	182	191	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	8	10	0.06%	10.40%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	4.73	0.26	0	0	0	2	2	3,491.75	182	214	TRUE	
SNU216LR_PC3_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	1	1	1	0.01%	0.95%	VTGPRLVSNHSLHETSSVFVDSLTK	K	A	95.00%	4.12	0.248	0	0	0	1	2	2,790.38	2515	2539	TRUE	
SNU216LR_PC3_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.80%	1	1	1	0.01%	1.34%	RPESPSEISPIKGSVR	K	T	95.00%	2.65	0.235	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216LR_PC3_01	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	4	5	0.03%	5.39%	EKLQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.72	0.618	0	1	2	0	2	2,919.15	41	67	TRUE	
SNU216LR_PC3_01	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	4	5	0.03%	5.39%	LQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.79	0.627	0	1	1	0	2	2,662.01	43	67	TRUE	
SNU216LR_PC3_01	Lamin-B1	IPI00217975	66,278.40	100.00%	2	3	3	0.02%	7.18%	AGGPTTPLSPTR	R	L	87.20%	2.36	0.145	0	1	0	0	2	1,234.58	14	25	TRUE	
SNU216LR_PC3_01	Lamin-B1	IPI00217975	66,278.40	100.00%	2	3	3	0.02%	7.18%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	5.28	0.411	0	0	1	1	2	3,491.54	547	576	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	7	0.04%	12.50%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	4.07	0.577	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	7	0.04%	12.50%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.9	0.543	0	2	1	0	2	2,008.94	381	399	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	7	0.04%	12.50%	SQDATFSPGSEQAEK	R	S	95.00%	3.28	0.228	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	7	0.04%	12.50%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.73	0.414	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	7	0.04%	12.50%	SWDSSSPVDRPEPEAASPTTR	R	T	95.00%	3.46	0.303	0	0	1	0	2	2,352.01	354	374	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	ETQSPEQVKSEK	K	L	95.00%	2.57	0.248	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.02	0.626	0	3	0	0	2	2,081.65	394	409	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	5.9	0.401	0	0	1	0	2	2,726.13	369	391	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	KAEGEPQEESPLK	K	S	95.00%	3.7	0.415	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	KAEGEPQEESPLKSK	K	S	95.00%	4.71	0.474	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	KETQSPEQVKSEK	K	L	95.00%	3.05	0.199	0	0	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	LKDLFDYSPPLHK	K	N	95.00%	2.81	0.282	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.83	0.517	0	1	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.94	0.279	0	0	1	1	2	2,903.23	181	204	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.91	0.456	0	0	1	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	15	17	0.10%	15.20%	YSPSQNSPIHHPSRR	R	S	95.00%	2.96	0.222	0	0	0	1	2	1,955.92	284	299	TRUE	
SNU216LR_PC3_01	HSPC121	IPI00008998	44,424.70	99.10%	1	1	1	0.01%	3.22%	WLDESDAEMELR	R	A	95.00%	2.61	0.269	0	1	0	0	2	1,573.62	110	121	TRUE	
SNU216LR_PC3_01	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	99.80%	1	1	1	0.01%	5.04%	SASSDTSEELNSQDSPPK	R	Q	95.00%	4.67	0.0294	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216LR_PC3_01	Something about silencing protein 10	IPI00006900	54,559.20	100.00%	1	1	1	0.01%	7.52%	AGPTLTDENGDDLGLPPSPGDTSYYQDQVI	K	S	95.00%	6.08	0.115	0	0	1	0	2	3,972.67	20	55	TRUE	
SNU216LR_PC3_01	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	2	2	3	0.02%	5.62%	ILDPNTGEPAPVLSSPPPADVSTFLAFPSPEK	K	L	95.00%	6.16	0.46	0	0	1	0	2	3,370.65	414	445	TRUE	
SNU216LR_PC3_01	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	2	2	3	0.02%	5.62%	KILDPNTGEPAPVLSSPPPADVSTFLAFPSPE	R	L	87.20%	6.29	0.0269	0	0	2	0	2	3,498.74	413	445	TRUE	
SNU216LR_PC3_01	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	3	4	0.02%	12.40%	KYSEVDDSLPSGGEKPSK	R	N	95.00%	3.33	0.25	0	1	0	0	2	2,002.90	26	43	TRUE	
SNU216LR_PC3_01	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	3	4	0.02%	12.40%	RKSQVNGEAGSYEMTNQHVK	R	Q	95.00%	4.22	0.396	0	0	0	2	2	2,343.05	102	121	TRUE	
SNU216LR_PC3_01	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	3	4	0.02%	12.40%	TTLLGTIFSPVFNFFSPANK	R	N	95.00%	2.83	0.306	0	1	0	0	2	2,281.13	138	157	TRUE	
SNU216LR_PC3_01	palladin	IPI00292009	122,047.90	100.00%	4	5	5	0.03%	5.61%	GRSPRSPSGHPHVR	R	R	95.00%	3.01	0.376	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC3_01	palladin	IPI00292009	122,047.90	100.00%	4	5	5	0.03%	5.61%	IASDEEIQGTK	R	D	95.00%	2.6	0.441	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC3_01	palladin	IPI00292009	122,047.90	100.00%	4	5	5	0.03%	5.61%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	4.42	0.554	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC3_01	palladin	IPI00292009	122,047.90	100.00%	4	5	5	0.03%	5.61%	SRDSGDENEPIQER	R	F	95.00%	2.97	0.207	0	0	1	0	2	1,711.69	894	907	TRUE	
SNU216LR_PC3_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	1	1	1	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.49	0.264	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC3_01	Isoform Delta of Poliovirus receptor-related prote	IPI00022661	57,741.90	99.20%	1	1	1	0.01%	4.65%	EQTLQGAEEDEDLEGPPSYKPPTPK	K	A	95.00%	5.34	0.46	0	0	1	0	2	2,835.26	388	412	TRUE	
SNU216LR_PC3_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	4	0.02%	7.51%	GFENVIHDKLPLQESEEEEREER	K	S	95.00%	3.9	0.39	0	0	1	0	2	2,892.31	143	165	TRUE	
SNU216LR_PC3_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	4	0.02%	7.51%	SEPVINNDNPLESNDEK	R	E	95.00%	3.57	0.333	0	1	0	0	2	1,993.84	350	366	TRUE	
SNU216LR_PC3_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	4	0.02%	7.51%	VIGQDHDFSESSEEEAPAEASSGALR	R	S	95.00%	3.26	0.266	0	0	2	0	2	2,878.15	399	424	TRUE	
SNU216LR_PC3_01	Zinc finger protein 185	IPI00005688	49,186.50	99.80%	1	1	1	0.01%	4.60%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.87	0.556	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC3_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	5	0.03%	8.71%	LVSESSDVLPK	K	-	95.00%	2.24	0.303	0	1	0	0	2	1,253.60	472	482	TRUE	
SNU216LR_PC3_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	5	0.03%	8.71%	SLDMDSIIAEVK	R	A	95.00%	2.86	0.237	0	2	0	0	2	1,400.64	252	263	TRUE	
SNU216LR_PC3_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	5	0.03%	8.71%	SYKVSTSGPR	K	A	95.00%	1.5	0.353	0	1	0	0	2	1,161.53	8	17	TRUE	
SNU216LR_PC3_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	5	0.03%	8.71%	SYTSGPGSR	R	I	95.00%	1.76	0.4	1	0	0	0	2	991.3881	23	31	TRUE	
SNU216LR_PC3_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	4	9	0.05%	10.70%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.62	0.563	0	3	4	1	2	2,205.10	225	244	TRUE	
SNU216LR_PC3_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	4	9	0.05%	10.70%	YEDEVFGDSEPELDEESEDEVEEEQEER	R	Q	95.00%	3.65	0.468	0	0	1	0	2	3,550.26	133	160	TRUE	
SNU216LR_PC3_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	5.83%	AGDLLEDSPK	R	R	95.00%	2.42	0.212	1	1	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC3_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	5.83%	AGDLLEDSPKRPK	R	E	95.00%	2.97	0.216	0	0	1	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC3_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	5.83%	RAGDLLEDSPK	R	R	95.00%	2.63	0.315	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216LR_PC3_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	4	0.02%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	3.41	0.463	0	2	0	0	2	1,684.77	414	426	TRUE	
SNU216LR_PC3_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	4	0.02%	2.38%	RSQSIEQESQEK	R	Q	95.00%	3.81	0.199	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216LR_PC3_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	4	0.02%	2.38%	SQSIEQESQEK	R	Q	95.00%	2.49	0.449	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216LR_PC3_01	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.21	0.284	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216LR_PC3_01	Histone acetyltransferase MYST2	IPI00180764	70,644.50	100.00%	3	3	3	0.02%	6.38%	DMSLKDSGSDLSHRPK	K	R	95.00%	3.02	0.385	0	0	1	0	2	1,852.83	156	171	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Histone acetyltransferase MYST2	IPI00180764	70,644.50	100.00%	3	3	3	0.02%	6.38%	LSQSSQDSSPVR	R	N	95.00%	2.49	0.198	0	1	0	0	2	1,370.59	49	60	TRUE	
SNU216LR_PC3_01	Histone acetyltransferase MYST2	IPI00180764	70,644.50	100.00%	3	3	3	0.02%	6.38%	SQQQPTPVTPK	R	K	89.50%	1.82	0.241	0	1	0	0	2	1,290.61	80	90	TRUE	
SNU216LR_PC3_01	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	2	2	2	0.01%	6.49%	ASGEMASAQYITAALR	R	D	95.00%	3.17	0.464	0	1	0	0	2	1,719.78	107	122	TRUE	
SNU216LR_PC3_01	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	2	2	2	0.01%	6.49%	VNQQPNTSDKKSSPQK	K	E	95.00%	3.87	0.427	0	0	1	0	2	1,865.88	347	362	TRUE	
SNU216LR_PC3_01	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	1	1	1	0.01%	5.80%	ATQVGEKTPKDESANQEEPEAR	K	V	95.00%	3.63	0.43	0	0	1	0	2	2,494.11	276	297	TRUE	
SNU216LR_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.04%	17.60%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	5.94	0.6	0	1	4	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.04%	17.60%	HASPILPITEFSDIPR	K	R	95.00%	3.46	0.21	0	1	1	0	2	1,872.93	304	319	TRUE	
SNU216LR_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.04%	17.60%	QNGSNDSDRYSDNEEDSK	R	I	95.00%	2.93	0.264	0	1	0	0	2	2,139.77	174	191	TRUE	
SNU216LR_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.04%	17.60%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	4.77	0.281	0	1	2	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.04%	17.60%	SSTPLPTISSSAENTR	R	Q	95.00%	2.69	0.18	0	1	0	0	2	1,727.78	158	173	FALSE	IPI00216230
SNU216LR_PC3_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	4.42	0.481	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC3_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	2.89	0.3	0	2	0	0	2	1,529.66	311	325	TRUE	
SNU216LR_PC3_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	5.04	0.59	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216LR_PC3_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.70%	2	2	2	0.01%	6.60%	DTEGGPKEEESPV	K	-	93.90%	2.32	0.227	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216LR_PC3_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.70%	2	2	2	0.01%	6.60%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	3.27	0.284	0	0	1	0	2	2,270.04	460	479	TRUE	
SNU216LR_PC3_01	ribosomal protein S6 kinase, 90kDa, polypeptide 1	IPI00017305,IPI00477982,IP	65,055.30	100.00%	1	1	1	0.01%	2.55%	TPKDSPGIPPSAGAHQLFR	R	G	95.00%	3.51	0.289	0	0	1	0	2	2,056.00	202	220	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	AATSGVPSIYAPSTYAHLSPAK	K	T	95.00%	3.69	0.304	0	0	1	0	2	2,269.09	295	316	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.11	0.586	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	GPALTPIRDEEWGGHSPR	R	S	95.00%	3.03	0.275	0	0	1	0	2	2,054.94	430	447	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	GPALTPIRDEEWGGHSPRSPR	R	G	95.00%	3.49	0.461	0	0	1	0	2	2,395.13	430	450	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	SRDDLYDQDDSR	R	D	95.00%	2.51	0.314	0	1	0	0	2	1,564.59	511	522	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	SRDDLYDQDDSRDFPR	R	S	93.30%	2.41	0.199	0	0	1	0	2	2,079.84	511	526	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	SRSRDDLYDQDDSR	R	D	95.00%	3.43	0.353	0	1	0	0	2	1,807.72	509	522	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	SSSAGGQGSYVPLLR	R	D	95.00%	3	0.341	0	1	0	0	2	1,558.73	344	358	TRUE	
SNU216LR_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	10	0.06%	14.90%	SVDALDDLTPPSTAESGSR	R	S	95.00%	3.86	0.388	0	1	0	0	2	1,997.87	474	492	TRUE	
SNU216LR_PC3_01	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	2	2	4	0.02%	12.40%	GGGGDMAEPSEAGDAPPDDGPPGELGPD	R	G	95.00%	4.07	0.474	0	0	2	0	2	3,453.36	311	346	TRUE	
SNU216LR_PC3_01	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	2	2	4	0.02%	12.40%	GGGGGQDNGLEGLGNDSR	R	D	95.00%	4.8	0.231	0	2	0	0	2	1,739.70	394	411	TRUE	
SNU216LR_PC3_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	3	3	0.02%	5.65%	AGGASPAASSTAQPPTQHR	R	L	95.00%	3.28	0.476	0	1	1	0	2	1,871.84	449	467	TRUE	
SNU216LR_PC3_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	3	3	0.02%	5.65%	RKASPEPEGEAAGK	R	M	95.00%	3.25	0.389	0	1	0	0	2	1,506.70	381	394	TRUE	
SNU216LR_PC3_01	Isoform 1 of Tight junction-associated protein 1	IPI00010544,IPI00643168,IP	61,822.20	99.80%	2	2	2	0.01%	5.21%	GSPEEELPLPAFEK	R	L	95.00%	2.48	0.269	0	1	0	0	2	1,622.74	299	312	TRUE	
SNU216LR_PC3_01	Isoform 1 of Tight junction-associated protein 1	IPI00010544,IPI00643168,IP	61,822.20	99.80%	2	2	2	0.01%	5.21%	KDSLTQAQEQGNLLN	R	-	95.00%	3.37	0.318	0	1	0	0	2	1,738.80	543	557	TRUE	
SNU216LR_PC3_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.80%	2	3	3	0.02%	3.96%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.13	0.26	0	0	1	0	2	2,073.00	603	620	TRUE	
SNU216LR_PC3_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.80%	2	3	3	0.02%	3.96%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.02	0.161	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216LR_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	6	0.04%	8.49%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.66	0.535	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	6	0.04%	8.49%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.55	0.265	0	0	1	1	2	3,631.49	108	138	TRUE	
SNU216LR_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	6	0.04%	8.49%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.3	0.449	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216LR_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	6	0.04%	8.49%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.03	0.499	0	0	1	0	2	3,787.60	107	138	TRUE	
SNU216LR_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	7	7	0.04%	11.80%	DYDEEEQGYDSEK	R	E	93.90%	2.52	0.162	0	0	1	0	2	1,686.57	364	376	TRUE	
SNU216LR_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	7	7	0.04%	11.80%	DYDEEEQGYDSEKEK	R	K	95.00%	3.6	0.296	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	7	7	0.04%	11.80%	DYDEEEQGYDSEKEKK	R	E	95.00%	3.69	0.47	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216LR_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	7	7	0.04%	11.80%	LNHVAAGLVSPSLK	K	S	95.00%	3.02	0.412	0	1	1	0	2	1,485.78	138	151	TRUE	
SNU216LR_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	7	7	0.04%	11.80%	SKTPPKSYSTAR	R	R	95.00%	2.96	0.5	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216LR_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	7	7	0.04%	11.80%	VNGDDHHEEDMDMSD	K	-	95.00%	2.89	0.503	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216LR_PC3_01	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	3	4	0.02%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.87	0.354	0	1	2	0	2	2,154.05	81	100	TRUE	
SNU216LR_PC3_01	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	3	4	0.02%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.12	0.183	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216LR_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	3.21	0.19	0	0	1	0	2	2,428.13	618	639	TRUE	
SNU216LR_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	GADNDGSGSESGYTTPK	K	K	95.00%	3.85	0.454	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	NDSWGSFDLR	R	A	95.00%	2.21	0.408	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	RTSPQVLGSILK	K	S	95.00%	3.28	0.191	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	100.00%	2	2	2	0.01%	8.42%	RDSSESQLASTESDKPTTGR	R	V	95.00%	6.51	0.533	0	0	1	0	2	2,231.98	64	83	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	100.00%	2	2	2	0.01%	8.42%	RSRSESETSTMAAK	R	K	95.00%	3.05	0.163	0	0	1	0	2	1,620.70	142	155	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	9	9	0.05%	12.40%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	5.34	0.447	0	0	1	1	2	3,065.37	341	365	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	9	9	0.05%	12.40%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	3.85	0.323	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	9	9	0.05%	12.40%	QESDPEDDDVK	R	K	95.00%	3.08	0.481	0	0	1	0	2	1,356.48	98	108	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	9	9	0.05%	12.40%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.25	0.435	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	9	9	0.05%	12.40%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.37	0.354	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	9	9	0.05%	12.40%	SLSPGKENVSALDMEK	K	E	95.00%	3.55	0.431	0	1	1	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC3_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	3	3	0.02%	2.67%	KMEESDEEAVQAK	R	V	95.00%	2.82	0.317	0	1	0	0	2	1,573.65	688	700	TRUE	
SNU216LR_PC3_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	3	3	0.02%	2.67%	SSPGAGPSDHHSASRDER	R	F	95.00%	2.97	0.408	0	0	1	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	8	0.05%	4.71%	DHSPTPSVFNSDEER	R	Y	95.00%	3.24	0.431	0	2	2	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	8	0.05%	4.71%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.71	0.375	0	1	2	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC3_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	8	0.05%	4.71%	RHESEEGDSHR	R	R	95.00%	2.48	0.313	0	0	1	0	2	1,418.54	551	561	TRUE	
SNU216LR_PC3_01	Septin-7	IPI00033025,IPI00552502	50,809.40	100.00%	1	1	1	0.01%	3.65%	GQLTKSPLAQMEEERR	K	E	95.00%	3.84	0.447	0	0	1	0	2	1,952.93	330	345	TRUE	
SNU216LR_PC3_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	3	3	0.02%	3.86%	SKPIPIMPASPQK	K	G	95.00%	3.19	0.336	0	1	1	0	2	1,473.75	596	608	TRUE	
SNU216LR_PC3_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	3	3	0.02%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	2.99	0.341	0	0	0	1	2	3,011.63	596	623	TRUE	
SNU216LR_PC3_01	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	100.00%	1	2	3	0.02%	1.70%	HGTPQKYDPTFK	K	G	95.00%	3.07	0.382	0	1	2	0	2	1,498.67	12	23	TRUE	
SNU216LR_PC3_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.70%	1	1	1	0.01%	1.87%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	4.77	0.425	0	0	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC3_01	Coiled-coil domain-containing protein 9	IPI00177642	59,703.00	99.80%	1	1	1	0.01%	1.69%	SGPLEESER	R	D	95.00%	1.96	0.343	0	1	0	0	2	1,083.44	202	210	TRUE	
SNU216LR_PC3_01	cystathionine-beta-synthase	IPI00219352,IPI00219649	60,587.30	99.80%	2	2	2	0.01%	5.63%	GSLEKGSPEDKEAK	K	E	95.00%	1.91	0.294	0	1	0	0	2	1,554.71	26	39	TRUE	
SNU216LR_PC3_01	cystathionine-beta-synthase	IPI00219352,IPI00219649	60,587.30	99.80%	2	2	2	0.01%	5.63%	PASESPHHHTAPAKSPK	R	I	95.00%	3.73	0.318	0	0	0	1	2	1,858.86	59	75	TRUE	
SNU216LR_PC3_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	2	2	0.01%	4.64%	SETSWESPK	K	Q	88.20%	1.97	0.19	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216LR_PC3_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	2	2	0.01%	4.64%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	3.84	0.279	0	0	1	0	2	2,152.93	415	432	TRUE	
SNU216LR_PC3_01	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,230.30	99.80%	2	3	3	0.02%	6.22%	RRTSDPSAAVNHVSSTTSLGENYEDDDLVN	R	K	85.10%	6.57	0.0019	0	0	1	0	2	4,018.76	21	56	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,230.30	99.80%	2	3	3	0.02%	6.22%	RTSDPSAAVNHVSSTTSLGENYEDDDLVNS	R	K	92.70%	7.18	0.0035	0	0	1	1	2	3,862.66	22	56	TRUE	
SNU216LR_PC3_01	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	99.50%	2	2	2	0.01%	5.78%	AVSPPHLDGPPSPRSPVIGSEVFLPNSNHVA	K	V	89.20%	4.64	0.0749	0	0	0	1	2	4,300.91	516	555	TRUE	
SNU216LR_PC3_01	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	99.50%	2	2	2	0.01%	5.78%	KASPEAASTPR	K	D	95.00%	2.08	0.271	0	1	0	0	2	1,194.55	401	411	TRUE	
SNU216LR_PC3_01	Isoform 3 of Transcription factor IIIB 90 kDa subu	IPI00016859,IPI00157643,IP	73,841.40	99.40%	2	2	2	0.01%	7.19%	AKGGLASLAK	K	D	87.30%	2.36	0.128	0	1	0	0	2	995.5287	339	348	TRUE	
SNU216LR_PC3_01	Isoform 3 of Transcription factor IIIB 90 kDa subu	IPI00016859,IPI00157643,IP	73,841.40	99.40%	2	2	2	0.01%	7.19%	GLSSAGGGSPHREDAQPEHSASAR	R	K	95.00%	3.14	0.291	0	0	1	0	2	2,441.06	545	568	TRUE	
SNU216LR_PC3_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	8.44%	AEEKSPISINVK	R	T	95.00%	2.39	0.313	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216LR_PC3_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	8.44%	EVKAEEKSPISINVK	R	T	95.00%	2.53	0.392	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216LR_PC3_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	8.44%	QQASKSPYNGVR	R	K	95.00%	3.37	0.245	0	1	0	0	2	1,414.65	142	153	TRUE	
SNU216LR_PC3_01	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	100.00%	1	2	2	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	2.98	0.384	0	1	1	0	2	1,842.71	375	389	TRUE	
SNU216LR_PC3_01	Membrane-associated guanylate kinase-related 3	IPI00170865	162,950.90	99.10%	2	2	2	0.01%	2.30%	HYLSLQFQKGSIDHKLQQVIR	R	D	82.20%	2.37	0.149	0	1	0	0	2	2,698.33	115	135	TRUE	
SNU216LR_PC3_01	Membrane-associated guanylate kinase-related 3	IPI00170865	162,950.90	99.10%	2	2	2	0.01%	2.30%	SLPSKMTNKTTSK	K	E	95.00%	2.18	0.223	0	1	0	0	2	1,582.69	1365	1377	TRUE	
SNU216LR_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	9	0.05%	10.00%	ARHDSPDPSPPR	R	R	90.50%	1.98	0.221	0	1	0	0	2	1,491.58	193	204	TRUE	
SNU216LR_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	9	0.05%	10.00%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.78	0.385	0	1	0	0	2	1,861.85	269	284	TRUE	
SNU216LR_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	9	0.05%	10.00%	HDSPDPSPPR	R	R	95.00%	2.27	0.384	0	2	0	0	2	1,184.47	195	204	TRUE	
SNU216LR_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	9	0.05%	10.00%	HDSPDPSPPRR	R	P	95.00%	2.24	0.382	0	1	0	0	2	1,420.54	195	205	TRUE	
SNU216LR_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	9	0.05%	10.00%	HDTPDPSPLR	R	G	95.00%	2.18	0.446	0	2	0	0	2	1,214.52	157	166	TRUE	
SNU216LR_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	9	0.05%	10.00%	KDRHDTPDPSPR	R	R	95.00%	2.8	0.254	0	0	1	0	2	1,500.66	142	153	TRUE	
SNU216LR_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	9	0.05%	10.00%	YEYDPDISPPR	K	K	95.00%	2.14	0.33	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216LR_PC3_01	2'-phosphodiesterase	IPI00174390	67,381.70	99.60%	1	1	1	0.01%	5.58%	EAKPGAAEPEVGVPSSLSPSSPSSSSWTETDV	K	V	91.50%	6.43	0.0214	0	0	1	0	2	3,579.60	200	233	TRUE	
SNU216LR_PC3_01	IMP dehydrogenase/GMP reductase family protei	IPI00746419	339,277.90	99.00%	2	2	2	0.01%	1.09%	EIYVISMQLIQILEAQLFVYSEK	R	V	95.00%	3	0.222	0	1	0	0	2	2,853.44	1272	1294	TRUE	
SNU216LR_PC3_01	IMP dehydrogenase/GMP reductase family protei	IPI00746419	339,277.90	99.00%	2	2	2	0.01%	1.09%	NSDLLTVLSR	K	S	80.80%	2.11	0.167	0	1	0	0	2	1,197.59	1928	1937	TRUE	
SNU216LR_PC3_01	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	99.20%	1	1	1	0.01%	2.46%	TNTMNGSKSPVISR	R	P	83.70%	2.18	0.218	0	1	0	0	2	1,571.72	747	760	TRUE	
SNU216LR_PC3_01	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	3	0.02%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	4.31	0.343	0	0	1	0	2	2,186.95	50	68	TRUE	
SNU216LR_PC3_01	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	3	0.02%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	2.98	0.342	0	1	1	0	2	1,764.73	99	114	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	AEDGATPSPSNETPK	K	K	95.00%	3.4	0.395	0	3	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	AEDGATPSPSNETPKK	K	K	95.00%	3.7	0.382	0	4	1	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	AEDGATPSPSNETPKKK	K	K	95.00%	3.8	0.427	0	2	1	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	95.00%	5.78	0.568	0	1	2	0	2	2,995.27	105	136	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	5.28	0.392	0	0	2	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.73	0.349	0	2	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	4.63	0.52	0	0	1	1	2	2,899.33	11	39	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.36	0.482	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	14	23	0.13%	43.20%	VNGDASPAAAESGAK	K	E	95.00%	2.78	0.392	0	1	0	0	2	1,424.61	40	54	TRUE	
SNU216LR_PC3_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	3	5	5	0.03%	8.11%	DKSPVREPIDNLTPEER	K	D	95.00%	4.34	0.436	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC3_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	3	5	5	0.03%	8.11%	TDASSASSFLDSDELER	R	T	95.00%	2.51	0.287	0	1	0	0	2	1,909.77	330	346	TRUE	
SNU216LR_PC3_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	3	5	5	0.03%	8.11%	YRSPYSGPK	R	F	95.00%	2.09	0.214	1	1	0	0	2	1,134.50	95	103	TRUE	
SNU216LR_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	8	9	0.05%	8.98%	AAESETPGKSPEK	K	K	95.00%	3.12	0.425	0	1	1	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	8	9	0.05%	8.98%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.42	0.449	0	2	1	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	8	9	0.05%	8.98%	ATNESEDEIPQLVPIGKK	K	T	95.00%	3.08	0.309	0	1	1	0	2	2,048.00	357	374	TRUE	
SNU216LR_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	8	9	0.05%	8.98%	KSPAKSPNPSTPR	K	G	95.00%	3.3	0.383	0	1	1	0	2	1,526.68	391	403	TRUE	
SNU216LR_PC3_01	Isoform 3 of Kinesin light chain 3	IPI00465074,IPI00478456,IP	55,236.60	99.80%	2	2	2	0.01%	5.41%	AMSLNTLNVDAPR	R	A	95.00%	2.62	0.376	0	1	0	0	2	1,481.68	463	475	TRUE	
SNU216LR_PC3_01	Isoform 3 of Kinesin light chain 3	IPI00465074,IPI00478456,IP	55,236.60	99.80%	2	2	2	0.01%	5.41%	RDSLASLFPSEEEER	R	K	95.00%	3.01	0.35	0	1	0	0	2	1,844.81	170	184	TRUE	
SNU216LR_PC3_01	heterogeneous nuclear ribonucleoprotein L isofor	IPI00027834	64,132.80	100.00%	1	1	1	0.01%	1.87%	ISRPGDSDDSR	K	S	91.80%	2.2	0.2	0	1	0	0	2	1,284.52	179	189	TRUE	
SNU216LR_PC3_01	Glucocorticoid induced transcript 1	IPI00021595	58,023.50	99.80%	2	2	2	0.01%	7.31%	GSQHSPTRPPVAAAAASLGSLPGPGAAR	R	G	95.00%	4.69	0.43	0	0	1	0	2	2,661.33	75	102	TRUE	
SNU216LR_PC3_01	Glucocorticoid induced transcript 1	IPI00021595	58,023.50	99.80%	2	2	2	0.01%	7.31%	SIDTQTPSVQER	R	S	95.00%	2.31	0.212	0	1	0	0	2	1,440.64	345	356	TRUE	
SNU216LR_PC3_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.20%	AHTPTPGIYMGRPTHSGGGGGGGGGGGGG	K	R	95.00%	4.77	0.438	0	0	1	1	2	2,871.25	200	232	TRUE	
SNU216LR_PC3_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.20%	RAHTPTPGIYMGR	K	P	95.00%	2.75	0.297	0	0	1	0	2	1,536.71	199	211	TRUE	
SNU216LR_PC3_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.20%	RAHTPTPGIYMGRPTHSGGGGGGGGGGG	K	R	94.80%	5.92	0.0436	0	0	0	1	2	3,027.35	199	232	TRUE	
SNU216LR_PC3_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.20%	RSPSPYYSR	R	Y	94.70%	2.13	0.222	0	2	0	0	2	1,192.51	259	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC3_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.02%	1.66%	GRSFAGNLNTYK	R	R	95.00%	3.43	0.256	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216LR_PC3_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.02%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	2.94	0.249	0	0	1	0	2	1,563.74	384	396	TRUE	
SNU216LR_PC3_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.02%	1.66%	SFAGNLNTYK	R	R	85.90%	2.06	0.202	0	1	0	0	2	1,194.52	386	395	TRUE	
SNU216LR_PC3_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.02%	1.66%	SFAGNLNTYKR	R	L	83.10%	2.11	0.164	0	1	0	0	2	1,350.62	386	396	TRUE	
SNU216LR_PC3_01	jub, ajuba homolog isoform 1	IPI00063605	56,934.60	99.70%	2	3	3	0.02%	5.39%	LEPTAPALSPR	R	S	94.20%	2.06	0.22	0	1	0	0	2	1,231.61	111	121	TRUE	
SNU216LR_PC3_01	jub, ajuba homolog isoform 1	IPI00063605	56,934.60	99.70%	2	3	3	0.02%	5.39%	SSFASSSASDASKPSSPR	R	G	95.00%	4.95	0.0352	0	1	1	0	2	1,835.78	122	139	TRUE	
SNU216LR_PC3_01	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	3	3	0.02%	5.65%	AGGSPASYHGSTSPR	K	V	95.00%	2.51	0.307	0	0	1	0	2	1,511.63	189	203	TRUE	
SNU216LR_PC3_01	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	3	3	0.02%	5.65%	GSSQPNLSTSHSEQEYGK	R	A	95.00%	2.9	0.435	0	1	1	0	2	2,015.83	171	188	TRUE	
SNU216LR_PC3_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	5	0.03%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	2.97	0.407	0	2	1	0	2	1,891.66	491	505	TRUE	
SNU216LR_PC3_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	5	0.03%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.63	0.315	0	0	2	0	2	2,824.10	491	513	TRUE	
SNU216LR_PC3_01	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	55,538.20	99.80%	2	2	2	0.01%	5.09%	EGSQGELTPANSQSR	R	M	95.00%	3.03	0.448	0	1	0	0	2	1,640.69	472	486	TRUE	
SNU216LR_PC3_01	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	55,538.20	99.80%	2	2	2	0.01%	5.09%	NQIHVKSPPREGSQGELTPANSQSR	R	M	95.00%	3.97	0.394	0	0	0	1	2	2,797.34	462	486	TRUE	
SNU216LR_PC3_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.20%	2	2	2	0.01%	2.09%	TCSLSGEQQDVSIDLTPLAQSGGSSYISDGK	K	E	95.00%	3.49	0.163	0	0	0	1	2	3,280.46	327	357	TRUE	
SNU216LR_PC3_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.20%	2	2	2	0.01%	2.09%	YEKDQGSFTEVVSISNLGMAK	K	T	83.50%	3.37	0.176	0	0	1	0	2	2,463.06	834	854	TRUE	
SNU216LR_PC3_01	Paraspeckle protein 1 alpha isoform	IPI00103525	58,744.50	100.00%	1	1	1	0.01%	3.06%	FPQGPPSQMGSPMGSR	R	T	95.00%	2.63	0.362	0	1	0	0	2	1,740.72	467	482	TRUE	
SNU216LR_PC3_01	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	99.80%	1	1	1	0.01%	3.19%	NFTKPQDGDVIAPLITPQKK	R	E	95.00%	3.79	0.353	0	0	1	0	2	2,290.18	577	596	TRUE	
SNU216LR_PC3_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	2	2	0.01%	6.85%	KTAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	3.86	0.44	0	0	1	0	2	2,905.25	133	157	TRUE	
SNU216LR_PC3_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	2	2	0.01%	6.85%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	3.92	0.391	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216LR_PC3_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	9	0.05%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.72	0.475	0	1	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC3_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	9	0.05%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	4.69	0.559	0	1	2	1	2	2,184.10	472	489	TRUE	
SNU216LR_PC3_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	9	0.05%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.49	0.541	0	2	1	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	12	0.07%	14.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	7.17	0.477	0	0	2	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	12	0.07%	14.90%	ETPHSPGVEDAPIAK	R	V	95.00%	3.49	0.444	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	12	0.07%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.85	0.521	0	0	1	0	2	3,126.40	223	250	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	12	0.07%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.7	0.485	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216LR_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	12	0.07%	14.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	4.13	0.531	0	1	2	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	12	0.07%	14.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.47	0.499	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	12	0.07%	14.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	5.22	0.513	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC3_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	3	3	3	0.02%	9.23%	KSFTPDHVVYAR	R	S	95.00%	2.93	0.413	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216LR_PC3_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	3	3	3	0.02%	9.23%	RGSSPDVHALLEITEESDAVLVDK	R	S	95.00%	4.66	0.378	0	0	1	0	2	2,740.25	363	386	TRUE	
SNU216LR_PC3_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	3	3	3	0.02%	9.23%	SFTPDHVVYAR	K	S	87.00%	1.94	0.208	0	1	0	0	2	1,371.61	300	310	TRUE	
SNU216LR_PC3_01	cardiomyopathy associated 5	IPI00166612	449,204.80	99.80%	1	1	1	0.01%	0.74%	LLSAMESTASLEKMPAAFSLFEHYDDSSAR	R	S	95.00%	3.75	0.219	0	0	0	1	2	3,560.44	3665	3694	TRUE	
SNU216LR_PC3_01	Isoform 1 of Poly [ADP-ribose] polymerase 2	IPI00026497,IPI00220995	66,207.80	99.60%	1	1	1	0.01%	2.74%	VNNGNTAPEDSSPAKK	R	T	95.00%	3.18	0.41	0	1	0	0	2	1,708.75	23	38	TRUE	
SNU216LR_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	6	7	0.04%	4.99%	DMSPLSETEMALGK	K	D	95.00%	2.65	0.34	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	6	7	0.04%	4.99%	DVTPPPETEVVLIK	K	N	95.00%	2.35	0.266	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216LR_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	6	7	0.04%	4.99%	ETERASPIKMDLAPSK	K	D	95.00%	3.25	0.316	0	1	2	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	6	7	0.04%	4.99%	RASPSKPASAPASR	K	S	95.00%	2.43	0.313	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC3_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	3.61	0.371	0	0	1	0	2	2,141.98	652	670	TRUE	
SNU216LR_PC3_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	5.09	0.432	0	1	1	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.60%	AAVLSDSEDEEKASAK	K	K	95.00%	2.38	0.29	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216LR_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.60%	EAEDSDSDDNIKR	K	G	95.00%	2.54	0.353	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.60%	GPASDSETEDASR	K	H	95.00%	1.98	0.347	0	1	0	0	2	1,481.48	310	322	TRUE	
SNU216LR_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.60%	HQASDSENEELPKPR	R	I	95.00%	2.44	0.37	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216LR_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.60%	HQASDSENEEPPKPR	R	M	95.00%	1.91	0.323	0	1	0	0	2	1,880.72	193	207	TRUE	
SNU216LR_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.60%	MDSDEDEKEGEEEK	K	V	95.00%	3.06	0.302	0	1	0	0	2	1,749.60	375	388	TRUE	
SNU216LR_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.60%	TIASDSEEEAGKELSDK	K	K	95.00%	1.93	0.292	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216LR_PC3_01	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	2	0.01%	3.55%	SGSSSPDSEITELK	R	F	95.00%	2.28	0.325	0	1	0	0	2	1,516.64	571	584	TRUE	
SNU216LR_PC3_01	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	2	0.01%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	95.00%	5.29	0.0265	0	1	0	0	2	2,327.01	571	591	TRUE	
SNU216LR_PC3_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	7.33%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	4.77	0.428	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216LR_PC3_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	7.33%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.87	0.499	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216LR_PC3_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	7.33%	GLWSTDSAEEDKETK	K	R	84.00%	2.45	0.171	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216LR_PC3_01	Hypothetical protein LOC92345	IPI00063219	53,703.30	99.80%	2	3	3	0.02%	5.26%	GSDASWKNDQEPPPEALDFSDDEKEK	K	E	95.00%	5.4	0.295	0	0	1	0	2	3,014.26	296	321	TRUE	
SNU216LR_PC3_01	Hypothetical protein LOC92345	IPI00063219	53,703.30	99.80%	2	3	3	0.02%	5.26%	NDQEPPPEALDFSDDEKEK	K	E	95.00%	4	0.447	0	1	1	0	2	2,282.93	303	321	TRUE	
SNU216LR_PC3_01	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	2	2	0.01%	3.66%	KTGSPGSPGAGGVQSTAK	K	K	95.00%	3.18	0.477	0	1	0	0	2	1,666.78	440	457	TRUE	
SNU216LR_PC3_01	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	2	2	0.01%	3.66%	TGSPGSPGAGGVQSTAK	K	K	95.00%	3.17	0.519	0	1	0	0	2	1,618.65	441	457	TRUE	
SNU216LR_PC3_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	99.80%	2	2	2	0.01%	3.51%	GDDDEESDEEAVK	K	K	95.00%	2.32	0.239	0	1	0	0	2	1,517.52	613	625	TRUE	
SNU216LR_PC3_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	99.80%	2	2	2	0.01%	3.51%	IKWDEQTSNTKGDDDEESDEEAVK	R	K	95.00%	3.33	0.235	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216LR_PC3_01	Brain acid soluble protein 1	IPI00299024	22,562.10	99.80%	1	1	1	0.01%	6.19%	ETPAATEAPSSTPK	K	A	95.00%	2.04	0.285	0	1	0	0	2	1,466.64	184	197	TRUE	
SNU216LR_PC3_01	Isoform 1 of SH3-domain kinase-binding protein	IPI00294962	73,128.90	99.60%	1	1	1	0.01%	1.95%	SIEVENDFLPVEK	R	T	95.00%	2.72	0.207	0	1	0	0	2	1,598.74	230	242	TRUE	
SNU216LR_PC3_01	Isoform 1 of DNA replication licensing factor MCI	IPI00299904	81,309.00	100.00%	1	1	1	0.01%	2.78%	SRDPGMVRSPQNQYPAELMR	R	R	95.00%	3.99	0.358	0	0	1	0	2	2,412.10	113	132	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.49%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3.9	0.524	0	1	0	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.49%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.07	0.295	0	1	1	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.49%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	2.77	0.271	0	1	0	0	2	2,234.82	131	148	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.49%	WDGSEEDEDNSK	K	K	95.00%	2.3	0.458	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.49%	WDGSEEDEDNSKK	K	I	95.00%	2.07	0.294	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	5	0.03%	5.20%	AVTPVPTKTEEVSNLK	R	T	95.00%	2.25	0.366	0	1	0	0	2	1,792.91	524	539	TRUE	
SNU216LR_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	5	0.03%	5.20%	ETESAPGSPR	K	A	95.00%	1.87	0.369	0	1	0	0	2	1,110.45	514	523	TRUE	
SNU216LR_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	5	0.03%	5.20%	GLSASLPDLDSENWIEVK	K	K	95.00%	2.41	0.247	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	5	0.03%	5.20%	SLPTTVPESPNYR	R	N	95.00%	2.52	0.356	0	2	0	0	2	1,540.70	766	778	TRUE	
SNU216LR_PC3_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	99.80%	2	3	3	0.02%	9.38%	HSLDSDEEEDDDDGGSSK	K	Y	95.00%	5.96	0.626	0	1	1	0	2	2,016.68	45	62	TRUE	
SNU216LR_PC3_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	99.80%	2	3	3	0.02%	9.38%	KGPGQPSSPQRLDR	R	L	95.00%	2.8	0.228	0	1	0	0	2	1,602.78	188	201	TRUE	
SNU216LR_PC3_01	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.02%	7.71%	KTNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	3.82	0.441	0	0	0	1	2	2,525.28	405	427	TRUE	
SNU216LR_PC3_01	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.02%	7.71%	SASDNTLVAMDFSGHAGR	R	V	95.00%	4.25	0.505	0	1	1	0	2	1,915.80	366	383	TRUE	
SNU216LR_PC3_01	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.02%	7.71%	TNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.99	0.347	0	0	1	0	2	2,397.19	406	427	TRUE	
SNU216LR_PC3_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	3	4	6	0.04%	6.89%	GLMAGGRPEGQYSEDEDTDTDEYK	R	E	91.80%	3.96	0.0125	0	2	0	0	2	2,743.07	430	453	TRUE	
SNU216LR_PC3_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	3	4	6	0.04%	6.89%	GLMAGGRPEGQYSEDEDTDTDEYKEAK	R	A	95.00%	5.28	0.507	0	1	2	0	2	3,087.24	430	456	TRUE	
SNU216LR_PC3_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	3	4	6	0.04%	6.89%	VIQPMGMSPR	R	G	95.00%	2.02	0.238	0	1	0	0	2	1,195.54	501	510	TRUE	
SNU216LR_PC3_01	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	95.00%	1.74	0.294	0	0	1	0	2	1,333.63	59	69	TRUE	
SNU216LR_PC3_01	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.88	0.524	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC3_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GLLYDSDEEDEERPAR	R	K	95.00%	2.94	0.294	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC3_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GNDPLTSSPGR	R	S	95.00%	2.19	0.411	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC3_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	4	0.02%	4.65%	QSVDKVTSPTKV	K	-	93.00%	2.34	0.226	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC3_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	4	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.78	0.224	0	1	2	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	KAGTATSPAGSSPAVAGGTQR	R	P	79.50%	2.35	0.209	0	0	0	1	2	2,031.89	591	611	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	KLGAGEGGEASVSPEK	K	T	95.00%	3.47	0.288	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	KLSGDQPAAR	R	T	95.00%	1.76	0.286	0	1	0	0	2	1,122.53	1271	1280	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	LDSSPSVSSTLAAK	K	D	95.00%	2.2	0.359	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	LGAGEGGEASVSPEK	K	T	95.00%	3.12	0.45	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.47	0.303	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	SLGNILQAKPTSSPAK	K	G	95.00%	2.52	0.226	0	1	0	0	2	1,691.87	494	509	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	TSQVGAASAPAKESPR	K	K	95.00%	3.88	0.464	0	2	1	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	10	11	0.06%	7.87%	TVANLLSGKSPR	K	K	95.00%	2.53	0.174	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC3_01	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	99.80%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	95.00%	2.24	0.224	0	1	0	0	2	1,768.67	272	284	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	5	5	0.03%	4.57%	DKEVSDDEAEEKEDK	R	E	95.00%	4.35	0.344	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	5	5	0.03%	4.57%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.28	0.324	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	5	5	0.03%	4.57%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.85	0.399	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	5	5	0.03%	4.57%	EVSDDEAEEKEDKEEEK	K	E	95.00%	3.16	0.383	0	0	1	0	2	2,117.83	351	367	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	100.00%	3	3	3	0.02%	9.42%	LPATAAEPEAAVISNGEH	R	-	95.00%	3.22	0.288	0	1	0	0	2	1,856.84	503	520	TRUE	
SNU216LR_PC3_01	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	100.00%	3	3	3	0.02%	9.42%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAK	R	K	95.00%	7.45	0.607	0	0	0	1	2	3,260.56	469	498	TRUE	
SNU216LR_PC3_01	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	100.00%	3	3	3	0.02%	9.42%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAKK	R	V	95.00%	7	0.496	0	0	0	1	2	3,388.65	469	499	TRUE	
SNU216LR_PC3_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	4	6	6	0.04%	10.20%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	7.46	0.592	0	0	1	1	2	3,923.85	419	453	TRUE	
SNU216LR_PC3_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	4	6	6	0.04%	10.20%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.93	0.401	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216LR_PC3_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	4	6	6	0.04%	10.20%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	92.90%	4.03	0.111	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216LR_PC3_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	4	6	6	0.04%	10.20%	YWGPASPTHK	K	L	87.20%	1.6	0.273	0	1	0	0	2	1,223.52	565	574	TRUE	
SNU216LR_PC3_01	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	99.80%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTR	R	E	95.00%	6.16	0.586	0	0	1	1	2	3,277.58	156	183	TRUE	
SNU216LR_PC3_01	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	99.80%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTREQLD	R	I	95.00%	5.12	0.477	0	0	0	1	2	4,062.95	156	190	TRUE	
SNU216LR_PC3_01	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	4	4	0.02%	6.69%	KPEDVLDDDDAGSAPLK	R	S	95.00%	3.4	0.254	0	1	1	0	2	1,864.82	234	250	TRUE	
SNU216LR_PC3_01	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	4	4	0.02%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	95.00%	3.12	0.472	0	1	1	0	2	2,020.92	233	250	TRUE	
SNU216LR_PC3_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	3	3	4	0.02%	4.33%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	4.31	0.271	0	0	0	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC3_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	3	3	4	0.02%	4.33%	SSSISEEKGDSDDEKPR	K	K	95.00%	3.09	0.257	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC3_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	3	3	4	0.02%	4.33%	TAQVPSPPR	R	G	95.00%	2.27	0.395	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC3_01	Isoform 1 of Far upstream element-binding prote	IPI00377261	61,639.90	100.00%	1	1	1	0.01%	4.55%	QSHAASAAPQASSPPDYTMAWAEYYR	K	Q	95.00%	4.87	0.325	0	0	1	0	2	2,936.23	527	552	TRUE	
SNU216LR_PC3_01	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	2	2	2	0.01%	3.40%	NVSSFPDDATSPLQENR	R	N	95.00%	4.13	0.517	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216LR_PC3_01	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	2	2	2	0.01%	3.40%	RNVSSFPDDATSPLQENR	R	N	95.00%	2.38	0.309	0	1	0	0	2	2,112.93	51	68	TRUE	
SNU216LR_PC3_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.80%	2	2	2	0.01%	15.10%	GRESDEDTEDASETDLAKHDEEDYVEMK	R	E	95.00%	3.59	0.473	0	0	1	0	2	3,483.24	42	69	TRUE	
SNU216LR_PC3_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.80%	2	2	2	0.01%	15.10%	RPASPSSPEHLPATPAESPAQR	K	F	95.00%	4.31	0.291	0	0	1	0	2	2,443.08	235	256	TRUE	
SNU216LR_PC3_01	Non-POU domain-containing octamer-binding pr	IPI00304596	54,231.60	100.00%	1	1	1	0.01%	4.67%	FGQAATMEGIGAIGGTPPAFNR	R	A	95.00%	3.29	0.401	0	0	1	0	2	2,243.03	435	456	TRUE	
SNU216LR_PC3_01	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	4	0.02%	6.79%	EATAQKPTGSVGSTVTTPPPLVR	K	G	95.00%	4.53	0.473	0	0	1	0	2	2,374.20	173	195	TRUE	
SNU216LR_PC3_01	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	4	0.02%	6.79%	RPPSPDVIVLSDNEQPSSPR	R	V	95.00%	3.93	0.434	0	1	2	0	2	2,350.05	97	116	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase RIO2	IPI00306406	63,309.70	99.80%	2	2	3	0.02%	6.52%	EGSEFSFSDGEVAEK	K	A	95.00%	2.35	0.377	0	2	0	0	2	1,777.62	330	344	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase RIO2	IPI00306406	63,309.70	99.80%	2	2	3	0.02%	6.52%	SSGDPEQIKEDSLSEESADAR	R	S	95.00%	3.25	0.371	0	1	0	0	2	2,329.97	369	389	TRUE	
SNU216LR_PC3_01	Protein CASC3	IPI00289491	76,277.90	98.90%	1	1	1	0.01%	3.13%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	4.09	0.419	0	0	1	0	2	2,415.03	140	161	TRUE	
SNU216LR_PC3_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	4	4	5	0.03%	3.35%	KEVLASPDR	K	L	95.00%	2.13	0.211	0	1	0	0	2	1,094.52	173	181	TRUE	
SNU216LR_PC3_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	4	4	5	0.03%	3.35%	NRSAEEGELAESK	R	S	95.00%	3.63	0.394	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC3_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	4	4	5	0.03%	3.35%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	3.06	0.194	0	0	1	0	2	2,531.07	1552	1572	TRUE	
SNU216LR_PC3_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	4	4	5	0.03%	3.35%	VPSSDEEVVEEPQSR	R	R	95.00%	4.12	0.424	0	2	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC3_01	zinc finger protein 609	IPI00307591	151,192.70	99.80%	2	2	2	0.01%	2.34%	LVEPHSPSPSSK	R	F	95.00%	2.37	0.272	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216LR_PC3_01	zinc finger protein 609	IPI00307591	151,192.70	99.80%	2	2	2	0.01%	2.34%	RGSQNSSEHRPPASSTSEDVK	R	A	95.00%	3.51	0.278	0	0	0	1	2	2,336.03	411	431	TRUE	
SNU216LR_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	13	0.08%	24.90%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	3.94	0.274	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216LR_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	13	0.08%	24.90%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.07	0.439	0	1	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	13	0.08%	24.90%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.22	0.609	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	13	0.08%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.72	0.46	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	13	0.08%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	10.7	0.685	0	0	1	5	2	3,735.89	46	80	TRUE	
SNU216LR_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	6	7	0.04%	10.20%	APAPLGTVADSLRASDSGQLQAK	K	A	95.00%	3.69	0.564	0	1	1	0	2	2,246.12	187	208	TRUE	
SNU216LR_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	6	7	0.04%	10.20%	KWSNSQPADLAHMGR	R	S	95.00%	3.96	0.422	0	1	1	0	2	1,777.78	143	157	TRUE	
SNU216LR_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	6	7	0.04%	10.20%	SFSEDTLMDGPAR	R	I	95.00%	2.74	0.379	0	2	0	0	2	1,505.60	123	135	TRUE	
SNU216LR_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	6	7	0.04%	10.20%	TSSDPVLLK	R	A	88.50%	1.8	0.0896	1	0	0	0	2	1,039.51	178	186	TRUE	
SNU216LR_PC3_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NDLQDTEISPR	K	Q	95.00%	2.82	0.257	0	1	0	0	2	1,367.58	463	473	TRUE	
SNU216LR_PC3_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAK	R	S	95.00%	3.17	0.353	0	1	0	0	2	1,547.76	90	102	TRUE	
SNU216LR_PC3_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAKSPASSSSK	R	N	95.00%	5.28	0.0995	0	0	1	0	2	2,279.11	90	110	TRUE	
SNU216LR_PC3_01	Acylamino-acid-releasing enzyme	IPI00337741	81,224.10	100.00%	1	1	1	0.01%	1.78%	ALDVSASDDEIAR	K	L	95.00%	2.05	0.256	0	1	0	0	2	1,441.62	181	193	TRUE	
SNU216LR_PC3_01	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	100.00%	1	2	3	0.02%	4.03%	TPESQPDTPPGTPLVSQDEKR	R	D	95.00%	5.18	0.214	0	1	2	0	2	2,359.08	111	131	TRUE	
SNU216LR_PC3_01	Negative elongation factor B	IPI00103483	65,699.50	100.00%	1	2	2	0.01%	4.48%	KPSPAQAAETPALELPLPSVPAPAPL	R	-	95.00%	4.89	0.516	0	1	1	0	2	2,642.38	555	580	TRUE	
SNU216LR_PC3_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	4	4	0.02%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	4.28	0.327	0	1	1	0	2	2,020.82	45	61	TRUE	
SNU216LR_PC3_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	4	4	0.02%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	3.6	0.404	0	0	1	1	2	2,176.93	44	61	TRUE	
SNU216LR_PC3_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.70%	2	2	3	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.85	0.239	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC3_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.70%	2	2	3	0.02%	10.10%	RSPSPYYSR	R	D	94.70%	2.13	0.222	0	2	0	0	2	1,192.51	263	271	TRUE	IPI00013891
SNU216LR_PC3_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	P	95.00%	2.98	0.493	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216LR_PC3_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.16	0.478	0	0	1	0	2	3,054.38	939	964	TRUE	
SNU216LR_PC3_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	2	2	2	0.01%	2.60%	TLDRSGDLGDMEPLK	R	G	92.40%	2.33	0.192	0	1	0	0	2	1,726.77	856	870	TRUE	
SNU216LR_PC3_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	2	2	2	0.01%	2.60%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.53	0.265	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	FASDDEHDEHDENGATGPVK	K	R	95.00%	3.53	0.384	0	1	1	0	2	2,249.86	364	383	TRUE	
SNU216LR_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.76	0.455	0	1	2	2	2	2,405.96	364	384	TRUE	
SNU216LR_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	3.57	0.426	0	0	1	0	2	2,479.00	362	383	TRUE	
SNU216LR_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.27	0.5	0	0	2	2	2	2,635.11	362	384	TRUE	
SNU216LR_PC3_01	Protein C9orf82	IPI00303812	38,368.80	99.20%	2	2	3	0.02%	10.20%	ILEGDNGMDSDMEEEADDGSK	K	M	95.00%	4.34	0.498	0	2	0	0	2	2,336.84	194	214	TRUE	
SNU216LR_PC3_01	Protein C9orf82	IPI00303812	38,368.80	99.20%	2	2	3	0.02%	10.20%	STDSSSVSGSLQQETK	R	Y	83.30%	3.72	0.0009	0	1	0	0	2	1,720.73	89	104	TRUE	
SNU216LR_PC3_01	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	1	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	5.78	0.65	0	0	1	0	2	4,279.38	119	153	TRUE	
SNU216LR_PC3_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	3	3	3	0.02%	3.05%	DGQDAIAQSPEKESK	K	D	95.00%	2.76	0.329	0	1	0	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC3_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	3	3	3	0.02%	3.05%	ISSKSPGHMVILDQTK	K	G	95.00%	4.01	0.457	0	0	1	0	2	1,820.90	549	564	TRUE	
SNU216LR_PC3_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	3	3	3	0.02%	3.05%	SPGHMVILDQTK	K	G	95.00%	2.56	0.261	0	1	0	0	2	1,405.65	553	564	TRUE	
SNU216LR_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	5	5	5	0.03%	16.90%	EESDGEYDEFGR	R	K	95.00%	3.04	0.567	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216LR_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	5	5	5	0.03%	16.90%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.39	0.466	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	5	5	5	0.03%	16.90%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	3.38	0.217	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216LR_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	5	5	5	0.03%	16.90%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	3.55	0.408	0	0	1	0	2	2,419.90	147	166	TRUE	
SNU216LR_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	5	5	5	0.03%	16.90%	YNLDASEEEDSNK	K	K	95.00%	2.67	0.406	0	1	0	0	2	1,593.60	183	195	TRUE	
SNU216LR_PC3_01	Cytosolic purine 5'-nucleotidase	IPI00029054	64,972.50	100.00%	1	1	1	0.01%	5.17%	AAHVLMPHESTVEHTHVDINEMESPLATR	R	N	95.00%	5.51	0.393	0	0	0	1	2	3,331.52	479	507	TRUE	
SNU216LR_PC3_01	Proto-oncogene tyrosine-protein kinase Fyn	IPI00219012	60,632.20	99.80%	1	1	1	0.01%	2.05%	DGSLNQSSGYR	R	Y	95.00%	2.29	0.391	0	1	0	0	2	1,263.50	18	28	TRUE	
SNU216LR_PC3_01	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	2	2	5	0.03%	6.12%	TSSDDESEEDEDDLLQR	K	T	85.20%	3.51	0.0265	0	1	0	0	2	2,142.73	204	220	TRUE	
SNU216LR_PC3_01	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	2	2	5	0.03%	6.12%	VQEHEDSGDSEVENEAK	R	G	95.00%	5.39	0.477	0	4	0	0	2	1,981.77	115	131	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.87	0.503	0	3	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.47	0.377	0	2	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	3.44	0.364	0	1	0	0	2	2,042.89	480	499	TRUE	
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	EVELVSE	K	-	95.00%	2.04	0.284	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	KRESESESDETPPAAPQLIK	R	K	85.00%	3.58	0.106	0	0	1	0	2	2,292.08	447	466	TRUE	
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	5.34	0.579	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	RESESESDETPPAAPQLIK	K	K	93.10%	3.29	0.0817	0	1	0	0	2	2,243.95	448	466	TRUE	
SNU216LR_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	13.80%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	5.16	0.459	0	0	1	1	2	2,718.29	20	42	TRUE	
SNU216LR_PC3_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	3	4	0.02%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	2.54	0.306	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC3_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	3	4	0.02%	16.10%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.99	0.515	0	0	2	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC3_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	3	0.02%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	3.4	0.244	0	0	1	0	2	1,666.81	31	44	TRUE	
SNU216LR_PC3_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	3	0.02%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	4.14	0.141	0	1	1	0	2	1,911.83	45	62	TRUE	
SNU216LR_PC3_01	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	2	3	0.02%	9.16%	RPEGPGAQAPSSPR	R	V	95.00%	2.57	0.303	0	1	0	0	2	1,486.68	504	517	TRUE	
SNU216LR_PC3_01	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	2	3	0.02%	9.16%	SSPGQPEAGPEGAQERPSQAAPAVEAEGPC	K	K	95.00%	5.21	0.518	0	0	2	0	2	3,564.60	18	53	TRUE	
SNU216LR_PC3_01	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	ANSALTPPKPESGLTLQESNTPGLR	R	Q	95.00%	3.36	0.332	0	0	1	0	2	2,658.31	451	475	TRUE	
SNU216LR_PC3_01	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	SGVGLSSYLSTEKDASPK	R	T	95.00%	2.92	0.293	0	1	0	0	2	1,905.88	487	504	TRUE	
SNU216LR_PC3_01	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	2	2	2	0.01%	8.87%	LFGGFNSSDTVTSPQR	K	A	95.00%	3.7	0.437	0	1	0	0	2	1,792.79	62	77	TRUE	
SNU216LR_PC3_01	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	2	2	2	0.01%	8.87%	SLEPAENVHGAGGGAFPASQTPSKPASADC	R	G	95.00%	4.77	0.43	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216LR_PC3_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	5.35%	MSADMSEIEAR	R	I	95.00%	2.1	0.253	0	1	0	0	2	1,319.50	388	398	TRUE	
SNU216LR_PC3_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	5.35%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.67	0.491	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216LR_PC3_01	Isoform 1 of Beta-catenin-like protein 1	IPI00411636,IPI00513797	65,175.20	100.00%	1	1	1	0.01%	2.66%	EYAENIGDGRSPEFR	K	E	95.00%	3.02	0.287	0	0	1	0	2	1,819.76	535	549	TRUE	
SNU216LR_PC3_01	NMD3 homolog	IPI00101049	57,603.40	100.00%	1	1	2	0.01%	3.38%	DSAIPVESDTDDEGAPR	R	I	95.00%	3.55	0.492	0	2	0	0	2	1,853.74	461	477	TRUE	
SNU216LR_PC3_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	5	5	0.03%	4.27%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	4.23	0.395	0	1	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC3_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	5	5	0.03%	4.27%	ATSPVKSTTSITDAK	K	S	95.00%	2.95	0.469	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC3_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	5	5	0.03%	4.27%	NKASPQSEFMPSK	K	G	95.00%	3.03	0.371	0	1	0	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC3_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	5	5	0.03%	4.27%	QPLSEASNQQPLSGGEEK	R	S	95.00%	3	0.313	0	1	0	0	2	1,978.88	42	59	TRUE	
SNU216LR_PC3_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	IRDWHLKQSPASPER	K	D	95.00%	3.27	0.26	0	0	1	0	2	1,899.92	136	150	TRUE	
SNU216LR_PC3_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	MIGFPSSAGSVSPR	K	S	95.00%	2.84	0.498	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216LR_PC3_01	Neutral amino acid transporter B(0)	IPI00019472	56,599.80	99.60%	1	1	1	0.01%	1.85%	STEPELIQVK	R	S	91.20%	2.02	0.309	0	1	0	0	2	1,223.59	493	502	TRUE	
SNU216LR_PC3_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMR	R	K	95.00%	3.66	0.438	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC3_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMRK	R	K	95.00%	3.85	0.346	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216LR_PC3_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	99.70%	2	2	2	0.01%	1.78%	QSPASPPPLGGGAPVR	R	T	95.00%	2.22	0.3	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC3_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	99.70%	2	2	2	0.01%	1.78%	SLEELLLDANQLR	R	E	94.00%	2.19	0.254	0	1	0	0	2	1,593.79	37	49	TRUE	
SNU216LR_PC3_01	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.80%	2	3	3	0.02%	10.50%	AVSETPAVPPVSEDEDDDDDDATPPPVIAPI	K	S	95.00%	5.76	0.458	0	0	1	1	2	3,888.73	163	198	TRUE	
SNU216LR_PC3_01	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.80%	2	3	3	0.02%	10.50%	DVATSPISPTENNTTPPDALTR	R	N	95.00%	5.51	0.0395	0	1	0	0	2	2,377.09	216	237	TRUE	
SNU216LR_PC3_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	GSSPGPRPVEGTPASR	R	T	95.00%	2.2	0.275	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC3_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	QAPAPTVIRDPPSITPAVKSPLPGPSEEK	R	T	95.00%	5.27	0.415	0	0	0	1	2	3,059.58	439	467	TRUE	
SNU216LR_PC3_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.78	0.311	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216LR_PC3_01	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.90%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.47	0.249	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216LR_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	4	4	0.02%	11.70%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	4.27	0.414	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216LR_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	4	4	0.02%	11.70%	DLTHSDSESSLHMSDR	R	Q	95.00%	3.83	0.142	0	0	1	0	2	1,896.74	515	530	TRUE	
SNU216LR_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	4	4	0.02%	11.70%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	3.96	0.501	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216LR_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	4	4	0.02%	11.70%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	3.9	0.477	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	3	3	5	0.03%	7.36%	LPKSPPYTAFLGNLPYDVTEESIKEFFR	R	G	95.00%	4.01	0.206	0	0	0	1	2	3,338.64	90	117	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	3	3	5	0.03%	7.36%	SPPYTAFLGNLPYDVTEESIKEFFR	K	G	95.00%	4.41	0.263	0	0	1	0	2	3,000.41	93	117	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	3	3	5	0.03%	7.36%	SQSSDTEQQSPTSGGGK	R	V	95.00%	4.04	0.567	0	3	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC3_01	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	1	2	8	0.05%	3.20%	SNSPLPVPPSK	R	A	95.00%	3.03	0.523	1	7	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC3_01	Matrin-3	IPI00017297	94,626.70	99.30%	2	3	3	0.02%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	86.80%	2.37	0.196	0	0	0	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC3_01	Matrin-3	IPI00017297	94,626.70	99.30%	2	3	3	0.02%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.97	0.297	0	1	1	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	4	0.02%	6.13%	APQTSSSPPPVR	R	R	95.00%	2.69	0.394	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	4	0.02%	6.13%	KETESEAEDNLDDLEK	K	H	95.00%	3.67	0.329	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	4	0.02%	6.13%	RESPSPAPKPR	K	K	95.00%	2.65	0.333	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	4	0.02%	6.13%	VPKPEPIPEPKEPSPEK	K	N	95.00%	4.06	0.436	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216LR_PC3_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	2.72%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.51	0.542	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC3_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	2.72%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.4	0.487	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.42%	MGQAPSQSLLPPAQDQPRSPVPSAFSDQSI	R	C	95.00%	4.39	0.401	0	0	1	0	2	3,259.52	2431	2460	TRUE	
SNU216LR_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.42%	SLSYSPVER	R	R	94.80%	1.92	0.233	0	1	0	0	2	1,197.46	2690	2698	TRUE	
SNU216LR_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.42%	SPVPSAFSDQSR	R	C	85.80%	2.18	0.198	0	1	0	0	2	1,357.58	2449	2460	TRUE	
SNU216LR_PC3_01	Isoform 3 of Periphilin-1	IPI00152093,IPI00396937,IP	29,784.90	99.80%	2	2	2	0.01%	5.99%	DNTFFRESPVGR	R	K	95.00%	2.81	0.212	0	1	0	0	2	1,504.66	78	89	TRUE	
SNU216LR_PC3_01	Isoform 3 of Periphilin-1	IPI00152093,IPI00396937,IP	29,784.90	99.80%	2	2	2	0.01%	5.99%	DTSPSSGSAVSSSK	R	V	95.00%	2.89	0.517	0	1	0	0	2	1,376.56	155	168	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	6.16	0.599	0	0	1	0	2	3,222.36	68	95	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.1	0.496	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216LR_PC3_01	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	2	3	0.02%	6.46%	AQSYPDNHQEFSDYDNPIFEK	R	F	95.00%	3.82	0.462	0	0	1	0	2	2,624.06	237	257	TRUE	
SNU216LR_PC3_01	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	2	3	0.02%	6.46%	DRSSPPPGYIPDELHQVAR	R	N	95.00%	5.8	0.485	0	0	2	0	2	2,214.03	161	179	TRUE	
SNU216LR_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	6	6	0.04%	11.70%	KPGPSGPSESPK	R	A	84.20%	2.14	0.171	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216LR_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	6	6	0.04%	11.70%	KPSGSPDLWKLSPDQR	R	K	94.80%	2.65	0.209	0	0	1	0	2	1,970.88	441	456	TRUE	
SNU216LR_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	6	6	0.04%	11.70%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.3	0.442	0	0	1	0	2	2,526.21	280	301	TRUE	
SNU216LR_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	6	6	0.04%	11.70%	KTSPASLDFPESQK	R	S	95.00%	3.21	0.491	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	6	6	0.04%	11.70%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.32	0.41	0	0	1	0	2	2,314.11	199	219	TRUE	
SNU216LR_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	6	6	0.04%	11.70%	TAPTLSPEHWK	K	A	95.00%	2.45	0.273	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC3_01	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	99.80%	1	2	4	0.02%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.29	0.491	0	1	3	0	2	2,741.09	164	187	TRUE	
SNU216LR_PC3_01	Isoform 1 of Protein C20orf112	IPI00289086,IPI00607558	43,078.10	100.00%	1	1	1	0.01%	3.90%	TTPESPPYSSGSYDSIK	K	T	95.00%	3.11	0.201	0	1	0	0	2	1,895.79	126	142	TRUE	
SNU216LR_PC3_01	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.85%	SQDADSPGSSGAPENLTFK	K	E	95.00%	3.31	0.375	0	1	0	0	2	1,987.83	1784	1802	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.85%	SSPNVANQPPSPGGK	R	S	95.00%	3.22	0.326	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216LR_PC3_01	Tissue factor precursor	IPI00010338	33,067.30	100.00%	1	1	1	0.01%	5.42%	AGVGQSWKENSPLNVS	K	-	95.00%	3.36	0.382	0	1	0	0	2	1,752.80	280	295	TRUE	
SNU216LR_PC3_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	6.42%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	4.9	0.441	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC3_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	6.42%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	4.81	0.499	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216LR_PC3_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	98.90%	1	1	1	0.01%	1.56%	SASPSTQQEKHPTHHER	R	G	95.00%	3.76	0.464	0	0	0	1	2	2,036.89	220	236	TRUE	
SNU216LR_PC3_01	protein kinase, AMP-activated, alpha 1 catalytic su	IPI00011891,IPI00410287	64,010.80	100.00%	1	2	2	0.01%	4.47%	DFYLATSPPDSFLDDHHLTRPHPER	K	V	95.00%	3.8	0.41	0	0	1	1	2	3,043.37	350	374	TRUE	
SNU216LR_PC3_01	Isoform 1 of Phosphoacetylglucosamine mutase	IPI00030116	59,852.40	100.00%	1	2	3	0.02%	3.69%	STIGVMVTASHNPEEDNGVK	K	L	95.00%	4.05	0.403	0	2	1	0	2	2,164.96	55	74	TRUE	
SNU216LR_PC3_01	insulin-like growth factor 2 mRNA binding protein	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	2	5	0.03%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3.51	0.481	0	3	2	0	2	1,980.90	152	168	TRUE	
SNU216LR_PC3_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	1	1	1	0.01%	2.97%	TVQSLEIDLDSMR	R	N	95.00%	2.49	0.219	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216LR_PC3_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	4	4	0.02%	5.70%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	2.53	0.234	0	0	1	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC3_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	4	4	0.02%	5.70%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.74	0.317	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC3_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	4	4	0.02%	5.70%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	4.79	0.374	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216LR_PC3_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	3.18	0.367	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216LR_PC3_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	4.25	0.36	0	1	1	0	2	2,308.15	97	119	TRUE	
SNU216LR_PC3_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	3	0.02%	14.50%	GRLSPVPVPR	R	A	95.00%	1.81	0.305	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216LR_PC3_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	3	0.02%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	5.97	0.522	0	0	2	0	2	3,607.45	259	290	TRUE	
SNU216LR_PC3_01	mRNA decapping enzyme 1A	IPI00164672	63,437.30	99.80%	2	3	3	0.02%	9.93%	HAPTYTIPLSPVLSPTLPAEAPTAQVPPSLPR	K	N	95.00%	3.77	0.139	0	0	1	0	2	3,478.74	306	337	TRUE	
SNU216LR_PC3_01	mRNA decapping enzyme 1A	IPI00164672	63,437.30	99.80%	2	3	3	0.02%	9.93%	QRSPLLNQPVPELSHASLIANQSPFR	R	A	95.00%	4.98	0.523	0	0	1	1	2	2,979.52	351	376	TRUE	
SNU216LR_PC3_01	Interferon-induced protein with tetratricopeptide	IPI00024254	55,986.00	99.80%	1	1	1	0.01%	2.65%	QAIELSPDNQYVK	K	V	95.00%	3.2	0.305	0	1	0	0	2	1,584.73	198	210	TRUE	
SNU216LR_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	8	8	0.05%	14.70%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.52	0.453	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	8	8	0.05%	14.70%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.86	0.342	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216LR_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	8	8	0.05%	14.70%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	4.51	0.578	0	1	1	0	2	1,912.96	264	282	TRUE	
SNU216LR_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	8	8	0.05%	14.70%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.35	0.401	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	8	8	0.05%	14.70%	SPGAPGPLTLK	R	E	95.00%	2.03	0.338	1	0	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	8	8	0.05%	14.70%	VSSIDLEIDSLSSLLDDMTK	K	N	95.00%	4.58	0.502	0	1	0	0	2	2,261.05	151	170	TRUE	
SNU216LR_PC3_01	Stress-induced-phosphoprotein 1	IPI00013894	62,642.10	100.00%	2	2	2	0.01%	1.66%	HDSPEDVK	R	R	95.00%	2.32	0.194	0	1	0	0	2	1,006.39	479	486	TRUE	
SNU216LR_PC3_01	Stress-induced-phosphoprotein 1	IPI00013894	62,642.10	100.00%	2	2	2	0.01%	1.66%	HDSPEDVKR	R	R	95.00%	1.86	0.289	0	1	0	0	2	1,162.49	479	487	TRUE	
SNU216LR_PC3_01	phosphoglucomutase 1	IPI00219526	61,451.10	100.00%	1	2	2	0.01%	4.09%	AIGGIILTASHNPGGPNGDFGIK	K	F	95.00%	4.42	0.522	0	1	1	0	2	2,286.13	108	130	TRUE	
SNU216LR_PC3_01	Metastasis-associated protein MTA2	IPI00171798	75,025.10	100.00%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	95.00%	4.52	0.123	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216LR_PC3_01	WDR79 protein	IPI00306087	59,310.10	100.00%	4	5	5	0.03%	14.80%	EGDPVSLSTPLETEFGSPSELSPR	R	I	95.00%	4.95	0.0887	0	0	1	0	2	2,611.18	69	92	TRUE	
SNU216LR_PC3_01	WDR79 protein	IPI00306087	59,310.10	100.00%	4	5	5	0.03%	14.80%	GDPPRLSPDPVAGSAVSQELR	R	E	95.00%	3.39	0.276	0	0	1	0	2	2,228.07	48	68	TRUE	
SNU216LR_PC3_01	WDR79 protein	IPI00306087	59,310.10	100.00%	4	5	5	0.03%	14.80%	NADSELMPPPPERGDPPRLSPDPVAGSAVS	K	E	95.00%	5.11	0.432	0	0	0	1	2	3,661.73	35	68	TRUE	
SNU216LR_PC3_01	WDR79 protein	IPI00306087	59,310.10	100.00%	4	5	5	0.03%	14.80%	VFPEPTESGDEGEELGLPLLSTR	R	H	95.00%	3.94	0.379	0	1	1	0	2	2,552.18	484	506	TRUE	
SNU216LR_PC3_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	1	2	2	0.01%	3.05%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	5.24	0.54	0	1	1	0	2	2,869.29	503	526	TRUE	
SNU216LR_PC3_01	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	63,847.90	99.70%	2	2	2	0.01%	6.52%	RNSTDSRPVSVTYR	K	F	93.80%	2.08	0.227	0	0	1	0	2	1,717.80	355	368	TRUE	
SNU216LR_PC3_01	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	63,847.90	99.70%	2	2	2	0.01%	6.52%	SNSLPHSAVSNAGSK	R	S	95.00%	2.58	0.456	0	1	0	0	2	1,535.68	432	446	TRUE	
SNU216LR_PC3_01	Protein AATF	IPI00302238	63,293.10	99.60%	2	3	3	0.02%	8.19%	AGDRNSEDDGVVMTFSSVK	R	V	95.00%	5.67	0.528	0	1	1	0	2	2,093.88	198	216	TRUE	
SNU216LR_PC3_01	Protein AATF	IPI00302238	63,293.10	99.60%	2	3	3	0.02%	8.19%	YLVDGTKPNAGSEEISSEDDELVEEKK	R	Q	92.40%	3.09	0.166	0	0	1	0	2	3,221.31	305	331	TRUE	
SNU216LR_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	6	8	8	0.05%	32.20%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	95.00%	6.6	0.0404	0	0	1	0	2	3,614.83	125	161	TRUE	
SNU216LR_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	6	8	8	0.05%	32.20%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.14	0.509	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	6	8	8	0.05%	32.20%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.57	0.474	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	6	8	8	0.05%	32.20%	QPPPLAPQSPQGGVMGGSNSNQQQQMR	K	L	95.00%	6.33	0.52	0	0	1	0	2	2,899.30	243	269	TRUE	
SNU216LR_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	6	8	8	0.05%	32.20%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.34	0.228	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216LR_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	6	8	8	0.05%	32.20%	SQLPTLEQDGGTQNPVSSPGMSQELR	R	T	95.00%	4.89	0.369	0	0	1	0	2	2,836.28	300	325	TRUE	
SNU216LR_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	95.00%	4.19	0.325	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216LR_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	3.42	0.293	0	0	2	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.18	0.394	0	1	0	0	2	1,798.73	964	980	TRUE	
SNU216LR_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	4.58	0.451	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216LR_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.16	0.334	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216LR_PC3_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	AAVVTSPPPTTAPHK	R	E	95.00%	2.41	0.366	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC3_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	SPGSPVGEGTGSPPK	R	W	95.00%	3.09	0.485	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC3_01	Alpha-1-syntrophin	IPI00164528	53,896.40	99.80%	2	2	3	0.02%	5.94%	NSTGGTSVGWDSPPASPLQR	K	Q	95.00%	3.7	0.45	0	2	0	0	2	2,173.90	178	197	TRUE	
SNU216LR_PC3_01	Alpha-1-syntrophin	IPI00164528	53,896.40	99.80%	2	2	3	0.02%	5.94%	QPSSPGPTPR	R	N	95.00%	1.88	0.38	0	1	0	0	2	1,103.49	198	207	TRUE	
SNU216LR_PC3_01	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	2	2	2	0.01%	5.04%	NHSDSSTSESEVSSVSPLK	K	N	95.00%	5.8	0.127	0	1	0	0	2	2,056.87	211	229	TRUE	
SNU216LR_PC3_01	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	2	2	2	0.01%	5.04%	NHSDSSTSESEVSSVSPLKNK	K	H	95.00%	5.57	0.517	0	0	1	0	2	2,299.01	211	231	TRUE	
SNU216LR_PC3_01	Lamin-B2	IPI00009771	69,949.40	100.00%	1	1	2	0.01%	1.94%	AGGPATPLSPTR	R	L	95.00%	2.54	0.397	0	2	0	0	2	1,204.57	29	40	TRUE	
SNU216LR_PC3_01	Nuclear receptor-binding protein	IPI00604756	59,844.60	99.80%	1	1	1	0.01%	2.43%	TPTPEPAEVETRK	K	V	95.00%	3.25	0.391	0	0	1	0	2	1,534.72	431	443	TRUE	
SNU216LR_PC3_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	2	2	2	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.91	0.356	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC3_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	2	2	2	0.01%	2.26%	TDSSPNQAR	K	A	95.00%	2.47	0.359	0	1	0	0	2	1,055.42	138	146	TRUE	
SNU216LR_PC3_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.30%	2	2	2	0.01%	2.01%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.06	0.463	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC3_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.30%	2	2	2	0.01%	2.01%	SPSFGDPQLSPEARPR	R	C	86.00%	2.32	0.167	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216LR_PC3_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	3.87	0.257	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC3_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	5	0.408	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	11	0.06%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.62	0.236	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	11	0.06%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.74	0.472	0	3	4	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	11	0.06%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.79	0.418	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216LR_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	11	0.06%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.95	0.326	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC3_01	Isoform 1 of Mesoderm induction early response	IPI00477825,IPI00478280,IP	63,426.50	99.60%	2	2	2	0.01%	4.48%	RVNSNGKESPGSSEFFQEAVSHGK	R	F	91.90%	2.82	0.2	0	0	0	1	2	2,658.19	533	556	TRUE	
SNU216LR_PC3_01	Isoform 1 of Mesoderm induction early response	IPI00477825,IPI00478280,IP	63,426.50	99.60%	2	2	2	0.01%	4.48%	VNSNGKESPGSSEFFQEAVSHGK	R	F	95.00%	3.44	0.22	0	0	1	0	2	2,502.09	534	556	TRUE	
SNU216LR_PC3_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	99.90%	2	2	2	0.01%	3.77%	ALGGEDSENEEEELGDEAMMALDQSLASLFA	K	L	95.00%	6.93	0.64	0	0	1	0	2	3,607.53	769	801	TRUE	
SNU216LR_PC3_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	99.90%	2	2	2	0.01%	3.77%	DPAQPMSPGEATQSGAR	R	P	95.00%	2.91	0.332	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216LR_PC3_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	5	6	7	0.04%	6.60%	ASAVSELSPR	R	E	85.40%	1.82	0.218	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216LR_PC3_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	5	6	7	0.04%	6.60%	ERSPALKSPLQSVVVR	R	R	95.00%	2.89	0.418	0	1	2	0	2	1,925.96	246	261	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	5	6	7	0.04%	6.60%	HGLAHDEMKSPR	K	E	95.00%	2.02	0.273	0	1	0	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC3_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	5	6	7	0.04%	6.60%	HGLAHDEMKSPREPGYK	K	A	95.00%	2.71	0.197	0	0	0	1	2	2,031.91	689	705	TRUE	
SNU216LR_PC3_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	5	6	7	0.04%	6.60%	KSPVGKSPPSTGSTYGSSQK	K	E	95.00%	4.52	0.464	0	0	1	0	2	2,059.97	314	333	TRUE	
SNU216LR_PC3_01	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	1	1	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	3.2	0.402	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC3_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	4	0.02%	11.10%	ATSRGSNSGMDSNIDLTIVEDEEEESVALEQ	K	V	93.30%	6.95	0.012	0	0	1	0	2	3,732.64	359	392	TRUE	
SNU216LR_PC3_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	4	0.02%	11.10%	GSNSGMDSNIDLTIVEDEEEESVALEQAQK	R	V	95.00%	5.56	0.442	0	0	1	0	2	3,317.43	363	392	TRUE	
SNU216LR_PC3_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	4	0.02%	11.10%	SSPFKVSPLTFGR	K	K	95.00%	2.67	0.325	0	1	1	0	2	1,502.74	287	299	TRUE	
SNU216LR_PC3_01	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	100.00%	2	2	3	0.02%	4.99%	EDVEVAESPLR	R	V	95.00%	2.91	0.361	0	1	0	0	2	1,323.58	510	520	TRUE	
SNU216LR_PC3_01	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	100.00%	2	2	3	0.02%	4.99%	NQSPTEAEKPASSSLPSSPPPQLLTR	K	N	95.00%	4.58	0.332	0	0	2	0	2	2,799.36	33	58	TRUE	
SNU216LR_PC3_01	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	100.00%	2	3	5	0.03%	8.70%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	5.88	0.472	0	0	2	2	2	3,734.69	135	167	TRUE	
SNU216LR_PC3_01	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	100.00%	2	3	5	0.03%	8.70%	GPVSPSVSFQPLAR	R	S	95.00%	2.76	0.508	0	1	0	0	2	1,521.75	219	232	TRUE	
SNU216LR_PC3_01	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	1	1	1	0.01%	4.83%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	3.36	0.322	0	0	1	0	2	2,302.01	351	371	TRUE	
SNU216LR_PC3_01	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	2	2	0.01%	6.27%	SQGSGNEAEPLGK	K	G	95.00%	2.6	0.312	0	1	0	0	2	1,353.57	452	464	TRUE	
SNU216LR_PC3_01	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	2	2	0.01%	6.27%	TSPVKSNTPAAHLEIKPDELAK	K	K	95.00%	3.79	0.474	0	0	0	1	2	2,426.23	194	215	TRUE	
SNU216LR_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	3	5	8	0.05%	10.40%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.98	0.564	0	1	2	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	3	5	8	0.05%	10.40%	RGLRDSHSSEEDEASSQTDLSQTISK	R	K	95.00%	4.1	0.293	0	0	1	0	2	3,103.23	236	261	TRUE	
SNU216LR_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	3	5	8	0.05%	10.40%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	5.91	0.563	0	1	3	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	4	6	6	0.04%	12.30%	AGAAAGDSDEESRADDK	R	G	95.00%	3.41	0.438	0	1	0	0	2	1,744.67	330	346	TRUE	
SNU216LR_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	4	6	6	0.04%	12.30%	AGAAAGDSDEESRADDKGVMDYYLK	R	Y	95.00%	3.92	0.389	0	0	1	1	2	2,714.13	330	354	TRUE	
SNU216LR_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	4	6	6	0.04%	12.30%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	4.29	0.446	0	1	1	0	2	2,210.89	537	555	TRUE	
SNU216LR_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	4	6	6	0.04%	12.30%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	5	0.392	0	0	1	0	2	2,665.24	503	530	TRUE	
SNU216LR_PC3_01	CDA02	IPI00012462	67,852.50	100.00%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.26	0.396	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216LR_PC3_01	H326	IPI00290071,IPI00640954,IP	30,568.30	99.80%	2	3	3	0.02%	3.69%	VHDRSEEEEEEEEEEEEQPR	R	R	95.00%	7.72	0.581	0	1	1	0	2	2,752.04	95	115	TRUE	
SNU216LR_PC3_01	H326	IPI00290071,IPI00640954,IP	30,568.30	99.80%	2	3	3	0.02%	3.69%	VHDRSEEEEEEEEEEEEQPRR	R	R	95.00%	4.98	0.401	0	0	0	1	2	2,908.14	95	116	TRUE	
SNU216LR_PC3_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	3	3	5	0.03%	3.79%	AVVVSPKEENK	K	A	95.00%	2.07	0.273	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216LR_PC3_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	3	3	5	0.03%	3.79%	KPSPQPSSPR	K	Q	95.00%	2.45	0.383	0	3	0	0	2	1,160.55	322	331	TRUE	
SNU216LR_PC3_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	3	3	5	0.03%	3.79%	RAVVVSPKEENK	K	A	90.00%	2.32	0.228	0	1	0	0	2	1,435.73	335	346	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	DGLAPEKTSPDRDK	R	K	95.00%	2.43	0.296	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	EQSEVSVSPR	K	A	95.00%	2.32	0.28	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	KEQSEVSVSPR	K	A	95.00%	2.07	0.247	0	1	0	0	2	1,325.61	24	34	TRUE	
SNU216LR_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	KKEQSEVSVSPR	K	A	95.00%	2.53	0.304	0	1	0	0	2	1,453.70	23	34	TRUE	
SNU216LR_PC3_01	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	99.50%	1	1	1	0.01%	7.81%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	2.79	0.235	0	0	1	0	2	2,544.30	33	57	TRUE	
SNU216LR_PC3_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	5	5	5	0.03%	14.40%	RASDDGKLTDPSK	R	T	95.00%	2.99	0.303	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216LR_PC3_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	5	5	5	0.03%	14.40%	SASEPSLHR	R	A	91.90%	1.93	0.213	0	1	0	0	2	1,063.46	619	627	TRUE	
SNU216LR_PC3_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	5	5	5	0.03%	14.40%	SHSESASPSALSSSPNNLSPTGWSQPK	R	T	83.40%	5.86	0.0207	0	0	1	0	2	2,820.25	283	309	TRUE	
SNU216LR_PC3_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	5	5	5	0.03%	14.40%	SRWSGSQQVEQPTGSVLWMAPEVIR	K	M	95.00%	4.82	0.482	0	0	1	0	2	2,908.38	494	518	TRUE	
SNU216LR_PC3_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	5	5	5	0.03%	14.40%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.76	0.495	0	1	0	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC3_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	3	5	0.03%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.75	0.409	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216LR_PC3_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	3	5	0.03%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	4.5	0.573	0	3	0	0	2	1,847.75	38	56	TRUE	
SNU216LR_PC3_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	3	5	0.03%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	2.6	0.419	0	1	0	0	2	2,132.89	38	58	TRUE	
SNU216LR_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	5	0.03%	7.07%	DFQEYVEPGEDFPASPQR	R	R	95.00%	3.85	0.506	0	1	1	0	2	2,190.90	193	210	TRUE	
SNU216LR_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	5	0.03%	7.07%	DFQEYVEPGEDFPASPQRR	R	N	95.00%	3.22	0.301	0	1	0	0	2	2,347.00	193	211	TRUE	
SNU216LR_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	5	0.03%	7.07%	SVSSNVASVSPIPAGSK	R	K	95.00%	4	0.0782	0	1	0	0	2	1,666.80	412	428	TRUE	
SNU216LR_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	5	0.03%	7.07%	SVSSNVASVSPIPAGSKK	R	I	95.00%	3.11	0.276	0	1	0	0	2	1,794.90	412	429	TRUE	
SNU216LR_PC3_01	Isoform 1 of Epsin-4	IPI00291930,IPI00397519	68,260.50	100.00%	2	2	2	0.01%	4.96%	ASPDQNASTHTPQSSVK	K	T	95.00%	2.25	0.235	0	1	0	0	2	1,834.80	298	314	TRUE	
SNU216LR_PC3_01	Isoform 1 of Epsin-4	IPI00291930,IPI00397519	68,260.50	100.00%	2	2	2	0.01%	4.96%	TIDLGAAAHYTGDKASPDQNASTHTPQSSV	K	T	95.00%	6.1	0.0518	0	0	1	0	2	3,248.49	284	314	TRUE	
SNU216LR_PC3_01	Pyruvate dehydrogenase E1 component alpha sul	IPI00306301	43,296.50	99.60%	1	1	1	0.01%	3.59%	YHGHSMSDPGVSYR	R	T	91.50%	2.36	0.203	0	0	1	0	2	1,688.65	289	302	TRUE	
SNU216LR_PC3_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	99.80%	2	2	2	0.01%	2.61%	RDSLTGSSDLYKR	R	T	95.00%	3.64	0.475	0	0	1	0	2	1,577.73	708	720	TRUE	
SNU216LR_PC3_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	99.80%	2	2	2	0.01%	2.61%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.27	0.337	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216LR_PC3_01	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	2	2	0.01%	3.70%	KARVGGSDEEASGIPSR	K	T	95.00%	3.04	0.242	0	1	0	0	2	1,795.83	353	369	TRUE	
SNU216LR_PC3_01	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	2	2	0.01%	3.70%	VGGSDEEASGIPSR	R	T	95.00%	2.73	0.226	0	1	0	0	2	1,440.60	356	369	TRUE	
SNU216LR_PC3_01	Tubulin--tyrosine ligase-like protein 12	IPI00029048	74,403.70	100.00%	1	2	2	0.01%	4.04%	SSPGQTPEEGAQALAEFAALHGPALR	R	A	95.00%	4.18	0.552	0	1	1	0	2	2,685.27	15	40	TRUE	
SNU216LR_PC3_01	Isoform 1 of Serine/threonine-protein kinase MAF	IPI00555838,IPI00556171,IP	80,649.10	100.00%	2	2	2	0.01%	3.43%	GRNSATSADEQPHIGNYR	R	L	95.00%	2.66	0.295	0	0	1	0	2	2,052.89	37	54	TRUE	
SNU216LR_PC3_01	Isoform 1 of Serine/threonine-protein kinase MAF	IPI00555838,IPI00556171,IP	80,649.10	100.00%	2	2	2	0.01%	3.43%	SRNSPLLER	R	A	83.60%	2.21	0.146	0	1	0	0	2	1,151.56	483	491	TRUE	
SNU216LR_PC4_01	Poly(rC)-binding protein 1	IPI00016610	37,498.20	100.00%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	4.57	0.335	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216LR_PC4_01	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	100.00%	3	4	6	0.04%	11.00%	ANDEANQSDTSVSLSEPK	K	S	90.60%	3.59	0.0423	0	1	0	0	2	1,971.82	195	212	TRUE	
SNU216LR_PC4_01	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	100.00%	3	4	6	0.04%	11.00%	EKGPTTGEGALDLSDVHSPPKSPEGK	K	T	95.00%	4.47	0.328	0	0	1	3	2	2,713.27	139	164	TRUE	
SNU216LR_PC4_01	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	100.00%	3	4	6	0.04%	11.00%	GPTTGEGALDLSDVHSPPKSPEGK	K	T	95.00%	3.18	0.339	0	0	1	0	2	2,536.10	141	164	TRUE	
SNU216LR_PC4_01	Isoform 1 of PEST-containing nuclear protein	IPI00291608	18,925.40	99.70%	1	1	1	0.01%	13.50%	TLSVAAAFNEDEDSEPEEMPPEAK	K	M	94.90%	2.77	0.23	0	0	1	0	2	2,686.11	106	129	TRUE	
SNU216LR_PC4_01	C1orf174 protein (Fragment)	IPI00217797,IPI00513779	28,258.50	99.80%	2	2	2	0.01%	9.40%	DGLSVPKHSAGSGAEESNSSSTVQK	R	Q	95.00%	2.95	0.271	0	0	1	0	2	2,619.10	160	184	TRUE	
SNU216LR_PC4_01	C1orf174 protein (Fragment)	IPI00217797,IPI00513779	28,258.50	99.80%	2	2	2	0.01%	9.40%	HSAGSGAEESNSSSTVQK	K	Q	95.00%	4.09	0.334	0	1	0	0	2	1,842.75	167	184	TRUE	
SNU216LR_PC4_01	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	DATPPVSPINMEDQER	R	I	95.00%	2.6	0.262	0	1	0	0	2	1,958.76	253	268	TRUE	
SNU216LR_PC4_01	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	SRDATPPVSPINMEDQER	R	I	95.00%	3.42	0.302	0	0	1	0	2	2,201.89	251	268	TRUE	
SNU216LR_PC4_01	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	DSLGDFIEHYAQLGPSSPEQLAAGAEEGGG	R	R	95.00%	5.25	0.521	0	0	1	1	2	3,335.49	84	115	TRUE	
SNU216LR_PC4_01	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	RGGGSGGGGEESEGEEVDED	R	-	95.00%	3.52	0.607	0	1	0	0	2	1,931.68	293	311	TRUE	
SNU216LR_PC4_01	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	99.80%	1	1	1	0.01%	8.70%	NSPTFKSFEEKVENLK	K	S	95.00%	3.09	0.247	0	0	1	0	2	1,976.94	130	145	TRUE	
SNU216LR_PC4_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.80%	1	2	2	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	95.00%	2.78	0.298	0	1	1	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC4_01	Exosome complex exonuclease RRP4	IPI00015905,IPI00647528	32,789.40	99.80%	1	1	1	0.01%	3.75%	RRSAEDELAMR	R	G	95.00%	2.58	0.293	0	0	1	0	2	1,413.63	122	132	TRUE	
SNU216LR_PC4_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	2	2	0.01%	12.20%	GPSWDPFRDWYPHSR	R	L	95.00%	2.84	0.384	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC4_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	2	2	0.01%	12.20%	QLSSGVSEIR	R	H	95.00%	2.05	0.224	1	0	0	0	2	1,155.54	80	89	TRUE	
SNU216LR_PC4_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	3	4	0.02%	7.86%	IRDWHLKQSPASPER	K	D	95.00%	4.01	0.3	0	0	1	0	2	1,899.92	136	150	TRUE	
SNU216LR_PC4_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	3	4	0.02%	7.86%	MIGFPSSAGSVSPR	K	S	95.00%	2.71	0.413	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216LR_PC4_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	3	4	0.02%	7.86%	QSPASPERDYSPYYK	K	T	95.00%	2.2	0.266	0	1	0	0	2	1,867.79	143	157	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	4.39%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.32	0.407	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216LR_PC4_01	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	4.39%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	3.3	0.184	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216LR_PC4_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	1	2	2	0.01%	2.95%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.14	0.456	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216LR_PC4_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	2	2	0.01%	5.48%	AGGASPAASSTAQPPTQHR	R	L	95.00%	3.97	0.473	0	1	0	0	2	1,871.84	449	467	TRUE	
SNU216LR_PC4_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	2	2	0.01%	5.48%	KASPEPEGEAAGK	R	M	95.00%	3.69	0.395	0	1	0	0	2	1,350.59	382	394	TRUE	
SNU216LR_PC4_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.50%	2	3	3	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	89.50%	3.21	0.172	0	0	1	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC4_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.50%	2	3	3	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.45	0.402	0	0	1	1	2	3,082.36	191	217	TRUE	
SNU216LR_PC4_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	5	0.03%	6.08%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	4.98	0.535	0	1	1	0	2	2,669.00	89	113	TRUE	
SNU216LR_PC4_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	5	0.03%	6.08%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	4.94	0.43	0	0	1	0	2	2,797.10	89	114	TRUE	
SNU216LR_PC4_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	5	0.03%	6.08%	GNDSDGEGESDDPEK	K	K	95.00%	3.21	0.57	0	1	0	0	2	1,630.54	99	113	TRUE	
SNU216LR_PC4_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	5	5	0.03%	6.08%	GNDSDGEGESDDPEKKK	K	L	95.00%	2.37	0.315	0	1	0	0	2	1,886.73	99	115	TRUE	
SNU216LR_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.04%	12.10%	ETPHSPGVEDAPIAK	R	V	95.00%	3.01	0.45	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.04%	12.10%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.81	0.538	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.04%	12.10%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.41	0.426	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216LR_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.04%	12.10%	SNTENLSQHFR	R	K	95.00%	2.32	0.228	0	1	0	0	2	1,412.60	55	65	TRUE	
SNU216LR_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.04%	12.10%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	5.08	0.352	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC4_01	Hypothetical protein	IPI00014197	27,334.70	100.00%	1	1	1	0.01%	6.98%	VQAMQISSEKEEDDNEKR	R	Q	95.00%	3.62	0.2	0	0	1	0	2	2,215.95	100	117	TRUE	
SNU216LR_PC4_01	Isoform 3 of Quaking protein	IPI00736672,IPI00759828	36,926.80	100.00%	1	2	2	0.01%	4.20%	DANIKSPTAQAAPR	R	I	95.00%	2.29	0.338	0	1	1	0	2	1,519.73	206	219	TRUE	
SNU216LR_PC4_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	99.80%	2	2	2	0.01%	5.05%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	5.36	0.44	0	0	1	0	2	2,373.03	234	253	TRUE	
SNU216LR_PC4_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	99.80%	2	2	2	0.01%	5.05%	RVTQGAASPGHGIQEK	R	L	95.00%	3.03	0.238	0	0	1	0	2	1,715.82	373	388	TRUE	
SNU216LR_PC4_01	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	100.00%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	95.00%	2.52	0.293	0	1	0	0	2	1,768.67	272	284	TRUE	
SNU216LR_PC4_01	CDNA FLJ11153 fis, clone PLACE1006917, weakly	IPI00001134,IPI00747510	30,503.70	99.80%	1	1	1	0.01%	3.75%	SFSSPENFQR	R	Q	95.00%	2.23	0.285	0	1	0	0	2	1,278.52	134	143	TRUE	
SNU216LR_PC4_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	3	3	4	0.02%	15.10%	GRESDEDTEDASETDLAK	R	H	95.00%	2.9	0.49	0	1	0	0	2	2,207.73	42	59	TRUE	
SNU216LR_PC4_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	3	3	4	0.02%	15.10%	GRESDEDTEDASETDLAKHDEEDYVEMK	R	E	95.00%	3.78	0.5	0	0	1	0	2	3,483.24	42	69	TRUE	
SNU216LR_PC4_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	3	3	4	0.02%	15.10%	RPASPSSPEHLPATPAESPAQR	K	F	95.00%	4.01	0.307	0	0	2	0	2	2,363.11	235	256	TRUE	
SNU216LR_PC4_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPK	R	Y	95.00%	5.13	0.48	0	1	0	0	2	2,165.95	217	236	TRUE	
SNU216LR_PC4_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	5.12	0.39	0	0	1	1	2	2,698.25	217	240	TRUE	
SNU216LR_PC4_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.08	0.454	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216LR_PC4_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	1	1	1	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.54	0.296	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC4_01	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	99.80%	2	2	2	0.01%	7.08%	RADLNQGIGEPQSPSR	R	R	95.00%	3.01	0.328	0	1	0	0	2	1,804.83	62	77	TRUE	
SNU216LR_PC4_01	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	99.80%	2	2	2	0.01%	7.08%	RADLNQGIGEPQSPSRR	R	V	95.00%	3.89	0.354	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216LR_PC4_01	Coatomer subunit epsilon	IPI00465132	34,351.70	100.00%	2	2	2	0.01%	4.56%	RDSIVAELDR	R	E	95.00%	2.81	0.349	0	1	0	0	2	1,253.59	96	105	TRUE	
SNU216LR_PC4_01	Coatomer subunit epsilon	IPI00465132	34,351.70	100.00%	2	2	2	0.01%	4.56%	RDSIVAELDREMSR	R	S	95.00%	2.72	0.204	0	0	1	0	2	1,756.80	96	109	TRUE	
SNU216LR_PC4_01	Nucleoporin NUP53	IPI00329650	34,774.50	100.00%	2	3	3	0.02%	6.13%	SPLLAGGSPPQPVVPAHK	R	D	95.00%	3.85	0.38	0	1	1	0	2	1,831.95	66	83	TRUE	
SNU216LR_PC4_01	Nucleoporin NUP53	IPI00329650	34,774.50	100.00%	2	3	3	0.02%	6.13%	SPLLAGGSPPQPVVPAHKDK	R	S	95.00%	3.3	0.36	0	0	1	0	2	2,075.07	66	85	TRUE	
SNU216LR_PC4_01	CDNA FLJ34719 fis, clone MESAN2005689, weakly	IPI00171390	37,477.60	100.00%	1	1	1	0.01%	8.33%	VSALEEDMDDVESSEEEEEEDEKLER	R	V	95.00%	4.52	0.371	0	0	1	0	2	3,230.20	181	206	TRUE	
SNU216LR_PC4_01	Telomeric repeat-binding factor 2-interacting pro	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	DDGSSMSFYVRPSPAK	R	R	95.00%	2.46	0.261	0	1	0	0	2	1,823.77	24	39	TRUE	
SNU216LR_PC4_01	Telomeric repeat-binding factor 2-interacting pro	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	YLLGDAPVSPSSQK	K	L	95.00%	2.61	0.243	0	1	0	0	2	1,541.72	195	208	TRUE	
SNU216LR_PC4_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.11%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.9	0.361	0	1	0	0	2	1,852.82	646	663	TRUE	
SNU216LR_PC4_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.11%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	4.78	0.419	0	0	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC4_01	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	NVSAGTQDVPSPPSDYVER	K	V	95.00%	3.21	0.35	0	1	0	0	2	2,097.91	246	264	TRUE	
SNU216LR_PC4_01	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	STPVPEVVQELPLTSPVDDFRQPR	K	Y	95.00%	4.12	0.452	0	0	1	0	2	2,786.38	290	313	TRUE	
SNU216LR_PC4_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	3	3	0.02%	7.53%	SESPKEPEQLR	K	K	95.00%	2.72	0.298	0	0	1	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC4_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	3	3	0.02%	7.53%	SESPKEPEQLRK	K	L	92.30%	2.42	0.231	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216LR_PC4_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	3	3	0.02%	7.53%	SSGPYGGGGQYFAKPR	R	N	95.00%	4.44	0.437	0	0	1	0	2	1,708.75	337	352	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	EESDGEYDEFGR	R	K	95.00%	3.02	0.51	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.47	0.496	0	1	1	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	2.98	0.248	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	5.84	0.644	0	1	0	0	2	2,419.90	147	166	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	SRSPESQVIGENTK	R	Q	95.00%	3.67	0.393	0	1	0	0	2	1,611.74	305	318	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	YKLDEDEDEDDADLSKYNLDASEEEDSNK	K	K	95.00%	6.19	0.551	0	0	1	0	2	3,474.38	167	195	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	YNLDASEEEDSNKK	K	K	95.00%	2.93	0.327	0	1	0	0	2	1,721.69	183	196	TRUE	
SNU216LR_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	10	0.06%	26.90%	YNLDASEEEDSNKKK	K	S	95.00%	3.3	0.327	0	1	1	0	2	1,849.79	183	197	TRUE	
SNU216LR_PC4_01	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	4	0.02%	10.80%	KYGGSVGSQPPPVAPEPGPVPSSPSQEPPTI	K	E	95.00%	6.34	0.578	0	0	1	0	2	3,291.61	178	209	TRUE	
SNU216LR_PC4_01	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	4	0.02%	10.80%	YGGSVGSQPPPVAPEPGPVPSSPSQEPPTKI	K	E	95.00%	7.41	0.534	0	0	2	1	2	3,163.51	179	209	TRUE	
SNU216LR_PC4_01	ELAV-like protein 1	IPI00301936	36,092.60	100.00%	1	1	1	0.01%	4.29%	NVALLSQLYHSPAR	K	R	95.00%	3.22	0.31	0	1	0	0	2	1,648.82	192	205	TRUE	
SNU216LR_PC4_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	3	4	4	0.02%	8.37%	SQRYSGAYGASVSDEELK	K	R	95.00%	3.95	0.347	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216LR_PC4_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	3	4	4	0.02%	8.37%	SQRYSGAYGASVSDEELKR	K	R	95.00%	4.58	0.485	0	0	1	0	2	2,182.98	46	64	TRUE	
SNU216LR_PC4_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	3	4	4	0.02%	8.37%	YSGAYGASVSDEELK	R	R	95.00%	3.19	0.438	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216LR_PC4_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	3	3	0.02%	0.74%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.66	0.465	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC4_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	3	3	0.02%	0.74%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	4.02	0.372	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216LR_PC4_01	palladin	IPI00292009	122,047.90	100.00%	3	3	3	0.02%	4.61%	GRSPRSPSGHPHVR	R	R	95.00%	2.61	0.254	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC4_01	palladin	IPI00292009	122,047.90	100.00%	3	3	3	0.02%	4.61%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	3.04	0.501	0	0	1	0	2	2,474.40	632	654	TRUE	
SNU216LR_PC4_01	palladin	IPI00292009	122,047.90	100.00%	3	3	3	0.02%	4.61%	SRDSGDENEPIQER	R	F	95.00%	2.91	0.226	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216LR_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	8	0.05%	12.90%	KPAGATPK	K	K	86.20%	1.76	0.237	0	1	0	0	2	849.4232	132	139	TRUE	
SNU216LR_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	8	0.05%	12.90%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.62	0.526	0	3	1	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	8	0.05%	12.90%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.31	0.426	0	1	1	1	2	2,190.07	1	21	TRUE	
SNU216LR_PC4_01	syntaxin 7	IPI00289876,IPI00552913	29,815.60	100.00%	1	1	1	0.01%	5.75%	ASSRVSGSFPEDSSK	R	E	95.00%	2.65	0.206	0	1	0	0	2	1,620.69	124	138	TRUE	
SNU216LR_PC4_01	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	IGHHSTSDDSSAYR	R	S	95.00%	2.99	0.374	0	1	1	0	2	1,612.64	367	380	TRUE	
SNU216LR_PC4_01	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDK	R	Q	83.30%	1.99	0.18	0	1	0	0	2	1,334.53	381	390	TRUE	
SNU216LR_PC4_01	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDKQDHPISR	R	L	95.00%	4.38	0.477	0	1	1	0	2	2,167.94	381	397	TRUE	
SNU216LR_PC4_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	4	4	0.02%	11.90%	KDDEDEEEEEEVSDS	R	-	95.00%	3.09	0.466	0	1	0	0	2	1,863.62	382	396	TRUE	
SNU216LR_PC4_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	4	4	0.02%	11.90%	QERLSPEVAPPAHR	K	R	95.00%	3.31	0.213	0	1	1	0	2	1,666.81	31	44	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	4	4	0.02%	11.90%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.52	0.244	0	0	1	0	2	1,911.83	45	62	TRUE	
SNU216LR_PC4_01	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	1	1	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE(	K	T	80.60%	5.55	0.0451	0	0	0	1	2	4,013.68	6	39	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	100.00%	1	1	1	0.01%	5.82%	SSGSPYGGGYGSGGGGSGGYGSR	R	R	95.00%	4.5	0.0224	0	1	0	0	2	1,990.76	355	376	TRUE	
SNU216LR_PC4_01	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	2	2	0.01%	9.05%	GSPHYFSPFRPY	R	-	95.00%	2.04	0.414	0	1	0	0	2	1,534.65	210	221	TRUE	
SNU216LR_PC4_01	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	2	2	0.01%	9.05%	STSYGYSR	R	S	95.00%	1.93	0.36	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216LR_PC4_01	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	1	2	3	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6	0.587	0	0	2	1	2	3,394.35	86	113	TRUE	
SNU216LR_PC4_01	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	10.50%	SRSPPPVSK	R	R	95.00%	2.29	0.363	0	1	0	0	2	1,034.50	188	196	TRUE	
SNU216LR_PC4_01	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	10.50%	VDNLTYRTSPDTLR	K	R	82.00%	2.38	0.17	0	0	1	0	2	1,730.81	17	30	TRUE	
SNU216LR_PC4_01	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	6	7	0.04%	17.30%	APAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	3.55	0.349	0	0	1	0	2	2,414.09	51	73	TRUE	
SNU216LR_PC4_01	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	6	7	0.04%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	K	95.00%	6.06	0.354	0	0	1	1	2	2,890.36	20	49	TRUE	
SNU216LR_PC4_01	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	6	7	0.04%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	A	95.00%	5.71	0.486	0	0	1	1	2	3,018.46	20	50	TRUE	
SNU216LR_PC4_01	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	6	7	0.04%	17.30%	KAPAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	4.6	0.41	0	0	2	0	2	2,542.18	50	73	TRUE	
SNU216LR_PC4_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	1	1	2	0.01%	2.49%	SLDMDSIIAEVK	R	A	95.00%	3.02	0.194	0	2	0	0	2	1,400.64	252	263	TRUE	
SNU216LR_PC4_01	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	99.80%	1	1	1	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	3.69	0.35	0	0	0	1	2	1,800.96	35	48	TRUE	
SNU216LR_PC4_01	Mitogen-activated protein kinase 1	IPI00003479	41,260.70	100.00%	1	1	1	0.01%	5.29%	VADPDHDHTGFLTEYVATR	R	W	95.00%	5.62	0.564	0	0	1	0	2	2,223.97	172	190	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	6	7	0.04%	9.07%	DYDDMSPR	R	R	94.10%	1.55	0.327	2	1	0	0	2	1,078.35	279	286	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	6	7	0.04%	9.07%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.67	0.344	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	6	7	0.04%	9.07%	IILDLISESPIKGR	K	A	95.00%	3.17	0.276	0	1	1	0	2	1,633.89	208	221	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	6	7	0.04%	9.07%	RDYDDMSPR	R	R	94.80%	2.24	0.177	0	1	0	0	2	1,234.46	278	286	TRUE	
SNU216LR_PC4_01	Fructose-bisphosphate aldolase A	IPI00465439	39,289.40	100.00%	1	1	1	0.01%	4.13%	GILAADESTGSIAKR	K	L	95.00%	2.63	0.388	0	1	0	0	2	1,568.77	28	42	TRUE	
SNU216LR_PC4_01	VAMP-associated protein B/C	IPI00006211	27,228.70	99.90%	2	2	2	0.01%	11.90%	SLSSSLDDTEVKK	K	V	95.00%	2.28	0.33	0	1	0	0	2	1,488.68	156	168	TRUE	
SNU216LR_PC4_01	VAMP-associated protein B/C	IPI00006211	27,228.70	99.90%	2	2	2	0.01%	11.90%	TVQSNSPISALAPTGK	K	E	95.00%	2.49	0.266	0	1	0	0	2	1,650.81	201	216	TRUE	
SNU216LR_PC4_01	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	56,976.70	100.00%	2	2	2	0.01%	2.98%	ASVRGSSEEDEDAR	R	T	95.00%	2.3	0.34	0	1	0	0	2	1,667.59	133	146	TRUE	
SNU216LR_PC4_01	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	56,976.70	100.00%	2	2	2	0.01%	2.98%	RASVRGSSEEDEDAR	R	T	95.00%	2.26	0.382	0	1	0	0	2	1,903.66	132	146	TRUE	
SNU216LR_PC4_01	Malate dehydrogenase, cytoplasmic	IPI00291005	36,295.70	100.00%	1	1	1	0.01%	3.00%	KLSSAMSAAK	R	A	90.80%	2.15	0.18	0	1	0	0	2	1,073.51	238	247	TRUE	
SNU216LR_PC4_01	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	5	0.03%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	4.77	0.436	0	1	1	0	2	2,186.95	50	68	TRUE	
SNU216LR_PC4_01	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	5	0.03%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.4	0.402	0	2	1	0	2	1,764.73	99	114	TRUE	
SNU216LR_PC4_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GLLYDSDEEDEERPAR	R	K	95.00%	2.86	0.315	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC4_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GNDPLTSSPGR	R	S	95.00%	2.13	0.326	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC4_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	2	2	0.01%	8.05%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	3.07	0.312	0	0	1	0	2	2,210.89	537	555	TRUE	
SNU216LR_PC4_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	2	2	0.01%	8.05%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	3.92	0.238	0	0	1	0	2	2,665.24	503	530	TRUE	
SNU216LR_PC4_01	Cdc42 effector protein 3	IPI00294391	27,679.20	99.80%	2	2	2	0.01%	17.70%	ANSTSDSVFTETPSPVLK	R	N	95.00%	4.42	0.451	0	1	0	0	2	1,959.89	87	104	TRUE	
SNU216LR_PC4_01	Cdc42 effector protein 3	IPI00294391	27,679.20	99.80%	2	2	2	0.01%	17.70%	NAISLPTIGGSQALMLPLLSPVTFNSK	K	Q	95.00%	5.24	0.586	0	1	0	0	2	2,849.49	105	131	TRUE	
SNU216LR_PC4_01	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.80%	2	2	2	0.01%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	3.62	0.237	0	1	0	0	2	1,622.75	176	190	TRUE	
SNU216LR_PC4_01	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.80%	2	2	2	0.01%	7.25%	LEGNSPQGSNQGVK	K	I	95.00%	2.14	0.274	0	1	0	0	2	1,494.66	177	190	TRUE	
SNU216LR_PC4_01	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	2	2	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.3	0.582	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216LR_PC4_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	3.03	0.314	0	2	0	0	2	1,529.66	311	325	TRUE	
SNU216LR_PC4_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	3.81	0.411	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216LR_PC4_01	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	98.90%	1	1	1	0.01%	9.27%	SSSAPLIHGLSDLSQVFQPYTLR	R	T	95.00%	4.13	0.329	0	0	1	0	2	2,596.28	23	45	TRUE	
SNU216LR_PC4_01	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	99.80%	1	1	1	0.01%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	2.64	0.331	0	1	0	0	2	1,586.78	68	81	TRUE	
SNU216LR_PC4_01	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	4	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.93	0.342	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216LR_PC4_01	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	4	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	3.76	0.448	0	1	2	0	2	2,056.96	75	92	TRUE	
SNU216LR_PC4_01	23 kDa protein	IPI00002821,IPI00069693,IP	23,259.00	100.00%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	93.70%	2.11	0.178	1	0	0	0	2	978.5385	133	141	TRUE	
SNU216LR_PC4_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	1	1	2	0.01%	0.87%	VPSSDEEVVEEPQSR	R	R	95.00%	3.52	0.4	0	2	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC4_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	3	0.02%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	5.14	0.381	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC4_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	3	0.02%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	6.2	0.519	0	0	2	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC4_01	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	3	4	4	0.02%	4.29%	GSSGSVVVDLLYWR	R	D	95.00%	3.09	0.421	0	1	0	0	2	1,617.77	180	193	TRUE	
SNU216LR_PC4_01	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	3	4	4	0.02%	4.29%	RGSSGSVVVDLLYWR	R	D	95.00%	4.04	0.419	0	1	1	0	2	1,773.87	179	193	TRUE	
SNU216LR_PC4_01	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	3	4	4	0.02%	4.29%	RRGSSGSVVVDLLYWR	K	D	95.00%	5.29	0.421	0	0	1	0	2	1,929.97	178	193	TRUE	
SNU216LR_PC4_01	PREDICTED: similar to basic leucine zipper and W	IPI00005681	34,091.00	100.00%	1	1	3	0.02%	4.70%	NAEEESESEAEEGD	K	-	95.00%	2.54	0.384	0	3	0	0	2	1,604.51	285	298	TRUE	
SNU216LR_PC4_01	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	2	3	4	0.02%	17.20%	FKVQGEAVSNIQENTQTPTVQEESEEEEVDI	K	D	88.10%	4.98	0.0661	0	0	0	1	2	4,215.90	143	179	TRUE	
SNU216LR_PC4_01	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	2	3	4	0.02%	17.20%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	5.04	0.351	0	0	2	1	2	3,940.73	145	179	TRUE	
SNU216LR_PC4_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	3	6	0.04%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	3.5	0.22	0	1	0	0	2	1,548.75	298	311	TRUE	
SNU216LR_PC4_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	3	6	0.04%	3.80%	SGPKPFSAPKPQTSPSPK	K	R	95.00%	3.75	0.506	0	2	3	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	1	1	1	0.01%	1.05%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	3.06	0.315	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216LR_PC4_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.80%	2	3	3	0.02%	7.93%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.23	0.548	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC4_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.80%	2	3	3	0.02%	7.93%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.44	0.474	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC4_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	5	5	0.03%	6.89%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.17	0.402	0	1	0	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC4_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	5	5	0.03%	6.89%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.05	0.447	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC4_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	5	5	0.03%	6.89%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.16	0.464	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216LR_PC4_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	5	5	0.03%	6.89%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.41	0.305	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	3.89	0.583	0	1	1	0	2	2,506.85	272	293	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.94	0.445	0	2	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	4.76	0.72	0	4	4	0	2	2,858.93	238	262	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	4.31	0.296	0	0	0	1	2	3,790.49	238	271	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	6.73	0.613	0	0	0	3	6	4,293.68	238	275	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	NDKSEEEQSSSSVK	K	K	95.00%	3.64	0.376	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	NDKSEEEQSSSSVKK	K	D	95.00%	3.4	0.419	0	1	0	0	2	1,761.75	217	231	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	3.21	0.278	0	1	2	0	2	2,336.00	211	230	TRUE	
SNU216LR_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	9	14	29	0.17%	28.30%	SEEEQSSSSVKKDETNVK	K	M	95.00%	3.68	0.362	0	1	1	0	2	2,090.91	220	237	TRUE	
SNU216LR_PC4_01	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	40,067.80	99.80%	2	3	4	0.02%	9.55%	SLHLSPQEQSASYQDR	K	R	95.00%	3.85	0.474	0	1	1	0	2	1,925.84	77	92	TRUE	
SNU216LR_PC4_01	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	40,067.80	99.80%	2	3	4	0.02%	9.55%	THDHQLESSLSPVEVFAK	K	T	95.00%	3.4	0.375	0	0	2	0	2	2,183.94	20	37	TRUE	
SNU216LR_PC4_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	99.80%	2	2	3	0.02%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYK	R	E	95.00%	3.1	0.357	0	0	1	0	2	2,743.07	430	453	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	99.80%	2	2	3	0.02%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYKEAK	R	A	95.00%	4.41	0.271	0	0	0	2	2	3,151.21	430	456	TRUE	
SNU216LR_PC4_01	FK506-binding protein 5	IPI00218775,IPI00743671	51,213.60	99.80%	1	1	1	0.01%	3.50%	GTDSQAMEEEKPEGHV	K	-	95.00%	2.42	0.233	0	1	0	0	2	1,823.72	442	457	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	7	0.04%	10.20%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	4.78	0.438	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	7	0.04%	10.20%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.18	0.412	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	7	0.04%	10.20%	SPVSTRPLPSASQK	R	A	95.00%	2.56	0.227	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	7	0.04%	10.20%	SSPQLDPLR	R	K	95.00%	1.94	0.302	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	7	0.04%	10.20%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.67	0.252	0	0	0	3	2	3,571.71	182	214	TRUE	
SNU216LR_PC4_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.40%	1	1	1	0.01%	0.77%	VDHGAEIITQSPGR	R	S	95.00%	3.67	0.48	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC4_01	MARCKS-related protein	IPI00641181	19,397.40	100.00%	3	3	3	0.02%	19.60%	AAATPESQEPQAK	K	G	95.00%	2	0.263	0	1	0	0	2	1,407.62	144	156	TRUE	
SNU216LR_PC4_01	MARCKS-related protein	IPI00641181	19,397.40	100.00%	3	3	3	0.02%	19.60%	GDVTAEEAAGASPAK	R	A	95.00%	3.23	0.347	0	1	0	0	2	1,453.62	10	24	TRUE	
SNU216LR_PC4_01	MARCKS-related protein	IPI00641181	19,397.40	100.00%	3	3	3	0.02%	19.60%	GEVPPKETPK	K	K	95.00%	1.86	0.39	0	1	0	0	2	1,161.56	77	86	TRUE	
SNU216LR_PC4_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.67	0.282	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	5	8	10	0.06%	19.70%	KAPKSPAK	K	A	95.00%	2.44	0.357	0	3	0	0	2	906.481	182	189	TRUE	
SNU216LR_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	5	8	10	0.06%	19.70%	KASGPPVSELITK	R	A	95.00%	2.27	0.303	0	1	0	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216LR_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	5	8	10	0.06%	19.70%	RKASGPPVSELITK	K	A	95.00%	2.97	0.233	0	0	1	0	2	1,562.83	32	45	TRUE	IPI00217466
SNU216LR_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	5	8	10	0.06%	19.70%	SETAPAAPAAPAPAEKTPVK	-	K	95.00%	3.86	0.475	0	1	1	0	2	1,983.98	1	20	TRUE	
SNU216LR_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	5	8	10	0.06%	19.70%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.07	0.53	0	1	1	1	2	2,112.07	1	21	TRUE	
SNU216LR_PC4_01	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.40%	1	1	2	0.01%	2.57%	AGGSPASYHGSTSPR	K	V	95.00%	2.79	0.478	0	2	0	0	2	1,511.63	189	203	TRUE	
SNU216LR_PC4_01	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	3	6	0.04%	7.59%	LGAGGGSPEKSPSAQELK	R	E	95.00%	4.06	0.243	0	2	2	0	2	1,792.85	13	30	TRUE	
SNU216LR_PC4_01	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	3	6	0.04%	7.59%	LGAGGGSPEKSPSAQELKEQGNR	R	L	95.00%	4.99	0.342	0	0	2	0	2	2,377.11	13	35	TRUE	
SNU216LR_PC4_01	Lactase-phlorizin hydrolase precursor	IPI00017648,IPI00604789	218,607.30	99.60%	2	2	2	0.01%	1.87%	ASARYYTEVITNNGMPLAR	R	E	95.00%	3.35	0.19	0	0	1	0	2	2,223.03	1350	1368	TRUE	
SNU216LR_PC4_01	Lactase-phlorizin hydrolase precursor	IPI00017648,IPI00604789	218,607.30	99.60%	2	2	2	0.01%	1.87%	SAYFFTSIIEKNGFLTK	K	G	91.40%	2.94	0.199	0	0	0	1	2	2,046.00	834	850	TRUE	
SNU216LR_PC4_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.00%	2	2	3	0.02%	10.60%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.47	0.526	0	1	4	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC4_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.00%	2	2	3	0.02%	10.60%	QNGSNDSDRYSDNEEDSK	R	I	79.80%	2.54	0.164	0	1	0	0	2	2,139.77	174	191	TRUE	
SNU216LR_PC4_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.00%	2	2	3	0.02%	10.60%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	5.23	0.254	0	0	2	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC4_01	MGC11257 protein	IPI00031651	22,084.00	99.00%	1	1	1	0.01%	10.80%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.34	0.331	0	0	1	0	2	2,372.11	44	64	TRUE	
SNU216LR_PC4_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.82	0.351	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC4_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	NEGSESAPEGQAQQR	K	R	95.00%	3.03	0.333	0	1	0	0	2	1,667.67	170	184	TRUE	
SNU216LR_PC4_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	NYQQNYQNSESGEK	R	N	95.00%	2.91	0.221	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216LR_PC4_01	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	GEEGSDDDETENGPKPK	K	K	95.00%	3.43	0.412	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC4_01	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	KGSGSEQEGEDEEGGER	R	K	95.00%	2.32	0.442	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216LR_PC4_01	Fibrillarin	IPI00025039	33,784.10	100.00%	1	1	1	0.01%	4.36%	RVSISEGDDKIEYR	K	A	95.00%	3.54	0.482	0	0	1	0	2	1,746.81	122	135	TRUE	
SNU216LR_PC4_01	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.20%	1	2	2	0.01%	4.22%	HGTDLWIDNMSSAVPNHSPEKK	R	D	95.00%	5.67	0.456	0	0	1	1	2	2,543.14	129	150	TRUE	
SNU216LR_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	9	0.05%	19.00%	AEDGATPSPSNETPK	K	K	95.00%	3.05	0.388	0	2	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	9	0.05%	19.00%	AEDGATPSPSNETPKK	K	K	95.00%	2.87	0.404	0	2	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	9	0.05%	19.00%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.44	0.516	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	9	0.05%	19.00%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	3.68	0.427	0	0	1	1	2	2,899.33	11	39	TRUE	
SNU216LR_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	9	0.05%	19.00%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.61	0.314	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC4_01	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	99.80%	1	1	4	0.02%	5.67%	ESLKEEDESDDDNM	K	-	95.00%	3.74	0.55	0	4	0	0	2	1,751.58	242	255	TRUE	
SNU216LR_PC4_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	3	4	0.02%	7.59%	IGEGTYGVVYK	K	G	95.00%	2.56	0.349	0	2	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216LR_PC4_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	3	4	0.02%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.62	0.386	0	1	1	0	2	1,645.78	165	176	TRUE	
SNU216LR_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.53	0.562	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.57	0.325	0	0	1	2	2	3,631.49	108	138	TRUE	
SNU216LR_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	LDNVPHTPSSYIETLPK	R	A	93.30%	2.89	0.191	0	0	1	0	2	1,990.95	45	61	TRUE	
SNU216LR_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.58	0.478	0	0	1	1	2	3,172.29	107	132	TRUE	
SNU216LR_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.53	0.482	0	0	0	1	2	3,787.60	107	138	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.16%	33.20%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.61	0.425	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.16%	33.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.95	0.433	0	1	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.16%	33.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.03	0.57	0	0	2	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.16%	33.20%	GPSSVEDIK	K	A	93.30%	1.88	0.234	0	1	0	0	2	1,011.44	211	219	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.16%	33.20%	MQASIEKGGSLPK	K	V	95.00%	2.87	0.231	0	1	0	0	2	1,425.68	222	234	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.16%	33.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.92	0.447	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.16%	33.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	6.92	0.637	0	0	3	15	2	3,751.89	46	80	TRUE	
SNU216LR_PC4_01	Isoform 1 of Hepatocyte growth factor receptor p	IPI00029273,IPI00294528	155,529.20	99.90%	1	1	1	0.01%	1.22%	SVSPTTEMVSNESVDYR	R	A	95.00%	2.62	0.355	0	1	0	0	2	1,980.83	988	1004	TRUE	
SNU216LR_PC4_01	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	99.50%	1	1	3	0.02%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	3.57	0.465	0	3	0	0	2	1,644.64	194	209	TRUE	
SNU216LR_PC4_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	4	0.02%	6.85%	KTAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	3.95	0.377	0	0	1	1	2	2,905.25	133	157	TRUE	
SNU216LR_PC4_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	4	0.02%	6.85%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	4.81	0.447	0	0	1	1	2	2,777.16	134	157	TRUE	
SNU216LR_PC4_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	3	0.02%	3.35%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	82.90%	6.57	0	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC4_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	3	0.02%	3.35%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	93.30%	6.26	0.0346	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216LR_PC4_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	3	0.02%	3.35%	RSSLLSLMTGKK	R	D	95.00%	2.53	0.241	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC4_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00015526,IPI00216442,IP	138,182.30	99.80%	1	1	1	0.01%	1.58%	TVIEMFKSITHSTVGSKGEK	R	D	95.00%	3.63	0.185	0	0	0	1	2	2,275.10	280	299	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	3	4	4	0.02%	17.30%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	6.63	0.533	0	0	1	1	2	3,901.66	12	44	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	3	4	4	0.02%	17.30%	LNEQASEEILK	R	V	83.20%	2.41	0.148	0	1	0	0	2	1,353.63	45	55	TRUE	
SNU216LR_PC4_01	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	3	4	4	0.02%	17.30%	LNEQASEEILKVEQK	R	Y	95.00%	2.99	0.229	0	1	0	0	2	1,837.89	45	59	TRUE	
SNU216LR_PC4_01	Isoform DFF45 of DNA fragmentation factor alpha	IPI00010882	36,522.50	99.10%	2	2	2	0.01%	5.14%	ASPPGDLQNPK	K	R	81.40%	1.65	0.272	0	1	0	0	2	1,203.54	314	324	TRUE	
SNU216LR_PC4_01	Isoform DFF45 of DNA fragmentation factor alpha	IPI00010882	36,522.50	99.10%	2	2	2	0.01%	5.14%	SISASKASPPGDLQNPK	R	R	95.00%	3.3	0.315	0	1	0	0	2	1,776.85	308	324	TRUE	
SNU216LR_PC4_01	Histone H4	IPI00453473	11,236.50	100.00%	1	1	1	0.01%	13.70%	RKTVTAMDVVYALK	K	R	95.00%	2.86	0.22	0	0	1	0	2	1,754.83	78	91	TRUE	
SNU216LR_PC4_01	Inosine-5'-monophosphate dehydrogenase 2	IPI00291510	55,806.50	100.00%	1	1	1	0.01%	1.95%	GMGSLDAMDK	R	H	95.00%	1.54	0.383	0	1	0	0	2	1,104.41	413	422	TRUE	
SNU216LR_PC4_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00033600	41,566.30	100.00%	1	2	2	0.01%	3.89%	RVESEESGDEEGKK	R	H	95.00%	3.27	0.427	0	1	1	0	2	1,658.69	21	34	TRUE	
SNU216LR_PC4_01	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.40%	2	3	3	0.02%	10.70%	RASLSDLTDLEDIEGLTVR	R	Q	95.00%	4.72	0.529	0	1	1	0	2	2,183.06	238	256	TRUE	
SNU216LR_PC4_01	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.40%	2	3	3	0.02%	10.70%	VPAEDETQSIDSEDSFVPGR	R	R	88.30%	3.3	0.0599	0	1	0	0	2	2,337.92	218	237	TRUE	
SNU216LR_PC4_01	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	KRSVQEGENPDDGVR	R	G	95.00%	4.33	0.368	0	0	1	0	2	1,765.79	12	26	TRUE	
SNU216LR_PC4_01	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	SVQEGENPDDGVR	R	G	95.00%	2.37	0.416	0	1	0	0	2	1,481.59	14	26	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	100.00%	2	3	3	0.02%	22.40%	APPGAPGPGPGSGAPGSQEEEEEPGLVEGD	R	A	95.00%	4.26	0.301	0	0	0	1	2	4,385.95	79	123	TRUE	
SNU216LR_PC4_01	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	100.00%	2	3	3	0.02%	22.40%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	3.88	0.486	0	1	1	0	2	2,307.02	146	166	TRUE	
SNU216LR_PC4_01	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	98.90%	1	1	2	0.01%	3.61%	SRLTPVSPESSSTEEK	R	S	95.00%	3.27	0.387	0	2	0	0	2	1,813.82	266	281	TRUE	
SNU216LR_PC4_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.10%	1	1	1	0.01%	6.76%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.96	0.168	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216LR_PC4_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	3	3	0.02%	7.90%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.47	0.321	0	0	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC4_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	3	3	0.02%	7.90%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.65	0.512	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216LR_PC4_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	3	3	0.02%	7.90%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	7.05	0.526	0	0	0	1	2	4,198.92	226	261	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nuclear distribution protein nudE hc	IPI00014893	37,721.50	100.00%	3	3	3	0.02%	14.00%	GLDDSTGGTPLTPAAR	R	I	95.00%	2.87	0.442	0	1	0	0	2	1,608.73	235	250	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nuclear distribution protein nudE hc	IPI00014893	37,721.50	100.00%	3	3	3	0.02%	14.00%	RPSSTSVPLGDK	R	G	95.00%	2.34	0.224	0	1	0	0	2	1,323.63	304	315	TRUE	
SNU216LR_PC4_01	Isoform 2 of Nuclear distribution protein nudE hc	IPI00014893	37,721.50	100.00%	3	3	3	0.02%	14.00%	TDTAVQATGSVPSTPIAHR	R	G	95.00%	2.8	0.252	0	0	1	0	2	1,988.94	202	220	TRUE	
SNU216LR_PC4_01	P40	IPI00164951,IPI00298454,IP	39,947.80	99.80%	2	2	2	0.01%	10.70%	SSSPATEQSWMENDFDELREEGFRR	R	S	95.00%	2.95	0.253	0	0	1	0	2	3,083.28	25	49	TRUE	
SNU216LR_PC4_01	P40	IPI00164951,IPI00298454,IP	39,947.80	99.80%	2	2	2	0.01%	10.70%	TQSASPPPKER	K	S	95.00%	2.06	0.231	0	1	0	0	2	1,277.59	14	24	TRUE	
SNU216LR_PC4_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	3.15	0.336	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC4_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	2.82	0.359	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC4_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	3	3	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	3.86	0.446	0	0	1	0	2	1,738.78	105	120	TRUE	
SNU216LR_PC4_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	3	3	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.13	0.377	0	1	1	0	2	1,894.88	104	120	TRUE	
SNU216LR_PC4_01	Zinc-finger protein ubi-d4	IPI00023322	44,156.40	99.80%	1	1	1	0.01%	3.84%	VDDDSLGEFPVTNSR	R	A	95.00%	2.75	0.325	0	1	0	0	2	1,730.73	138	152	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 2 subunit 3	IPI00297982	50,979.00	100.00%	1	1	1	0.01%	7.01%	ESQAKEQYEQILAFVQGTVAEGAPIIPISAQL	K	Y	95.00%	3.4	0.209	0	0	0	1	2	3,716.82	196	228	TRUE	
SNU216LR_PC4_01	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	2	2	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	4.57	0.522	0	0	1	1	2	2,565.01	131	153	TRUE	
SNU216LR_PC4_01	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	2	0.01%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.57	0.37	0	0	2	0	2	1,497.72	192	204	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	1	1	1	0.01%	2.62%	TGSESSQTGTSTTSSR	R	N	82.60%	3.23	0.0485	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216LR_PC4_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	3	3	0.02%	1.91%	DSENLASPSEYPENGER	R	F	95.00%	2.82	0.285	0	1	1	0	2	1,973.78	617	633	TRUE	
SNU216LR_PC4_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	3	3	0.02%	1.91%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.63	0.307	0	1	0	0	2	1,971.75	883	898	TRUE	
SNU216LR_PC4_01	26 kDa protein	IPI00748891	26,044.60	100.00%	2	2	2	0.01%	11.40%	RVIHFVSGETMEEYSTDEDEVDGLEK	R	K	93.00%	5.7	0.0517	0	0	1	0	2	3,174.29	79	104	TRUE	
SNU216LR_PC4_01	26 kDa protein	IPI00748891	26,044.60	100.00%	2	2	2	0.01%	11.40%	RVIHFVSGETMEEYSTDEDEVDGLEKK	R	D	95.00%	3.26	0.22	0	0	0	1	2	3,302.39	79	105	TRUE	
SNU216LR_PC4_01	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	2	3	3	0.02%	2.88%	EVYELLDSPGK	K	V	95.00%	2.31	0.285	0	1	0	0	2	1,329.60	46	56	TRUE	
SNU216LR_PC4_01	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	2	3	3	0.02%	2.88%	TKEVYELLDSPGK	K	V	95.00%	3.16	0.4	0	1	1	0	2	1,558.74	44	56	TRUE	
SNU216LR_PC4_01	40S ribosomal protein S2	IPI00013485	31,325.20	100.00%	2	2	2	0.01%	9.22%	ETVFTKSPYQEFTDHLVK	K	T	95.00%	3.23	0.211	0	0	1	0	2	2,249.05	258	275	TRUE	
SNU216LR_PC4_01	40S ribosomal protein S2	IPI00013485	31,325.20	100.00%	2	2	2	0.01%	9.22%	TQAPAVATT	R	-	95.00%	1.86	0.321	1	0	0	0	2	939.4184	285	293	TRUE	
SNU216LR_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	6	7	7	0.04%	21.20%	GSSGSPAHAESYSSGGGGQQK	R	F	95.00%	2.82	0.303	0	1	0	0	2	2,015.81	15	35	TRUE	
SNU216LR_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	6	7	7	0.04%	21.20%	ISPEERRSPPAPGLQPMR	K	S	95.00%	2.87	0.259	0	0	1	0	2	2,098.03	193	210	TRUE	
SNU216LR_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	6	7	7	0.04%	21.20%	QEPLEEDSPSSSSAGLDK	K	A	95.00%	4.74	0.0851	0	1	0	0	2	1,955.81	223	240	TRUE	
SNU216LR_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	6	7	7	0.04%	21.20%	RDEQLSPEEEEK	R	R	94.50%	2.76	0.128	0	1	0	0	2	1,568.65	115	126	TRUE	
SNU216LR_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	6	7	7	0.04%	21.20%	RSPPAPGLQPMR	R	S	95.00%	2.9	0.343	0	1	1	0	2	1,386.67	199	210	TRUE	
SNU216LR_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	6	7	7	0.04%	21.20%	SPPAPGLQPMR	R	S	95.00%	2.11	0.347	0	1	0	0	2	1,230.57	200	210	TRUE	
SNU216LR_PC4_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMR	R	K	95.00%	3.51	0.367	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC4_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMRK	R	K	95.00%	3.86	0.395	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216LR_PC4_01	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	4	4	0.02%	7.30%	GADSGEEKEEGINR	K	E	95.00%	3.11	0.466	0	0	1	1	2	1,570.64	194	207	TRUE	
SNU216LR_PC4_01	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	4	4	0.02%	7.30%	GADSGEEKEEGINREDK	K	T	95.00%	3.53	0.385	0	1	1	0	2	1,942.80	194	210	TRUE	
SNU216LR_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	6	8	0.05%	17.70%	AHTPTPGIYMGR	R	P	95.00%	2.07	0.31	0	0	1	0	2	1,380.61	200	211	TRUE	
SNU216LR_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	6	8	0.05%	17.70%	AHTPTPGIYMGRPTHSGGGGGGGGGGGG	R	R	95.00%	5.49	0.515	0	0	1	3	2	2,871.25	200	232	TRUE	
SNU216LR_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	6	8	0.05%	17.70%	RAHTPTPGIYMGRPTHSGGGGGGGGGGG	K	R	95.00%	5.99	0.484	0	0	1	1	2	3,027.35	199	232	TRUE	
SNU216LR_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	6	8	0.05%	17.70%	RSPSPYYSR	R	Y	88.00%	2.06	0.173	0	1	0	0	2	1,272.48	259	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	6	8	0.05%	17.70%	SPSPYYSR	R	Y	95.00%	1.68	0.348	1	0	0	0	2	1,116.38	260	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	6	8	0.05%	17.70%	SYTPEYR	R	R	88.70%	1.45	0.317	0	1	0	0	2	995.387	86	92	TRUE	
SNU216LR_PC4_01	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.80%	2	2	2	0.01%	4.44%	RPLSSSHEASEGQAK	K	D	95.00%	2.47	0.203	0	0	1	0	2	1,663.74	173	187	TRUE	
SNU216LR_PC4_01	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.80%	2	2	2	0.01%	4.44%	SSSPVQVEEEPVR	R	L	95.00%	2.52	0.322	0	0	1	0	2	1,522.68	116	128	TRUE	
SNU216LR_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	7	7	0.04%	22.00%	GGMGSGGLATGIAGGLAGMGGIQNEKETN	R	L	95.00%	6.08	0.464	0	0	1	0	2	3,415.54	56	90	TRUE	
SNU216LR_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	7	7	0.04%	22.00%	LLEDGEDFNLGDALDSSNSMQTIQK	R	T	95.00%	5.17	0.345	0	0	1	0	2	2,820.23	390	414	TRUE	
SNU216LR_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	7	7	0.04%	22.00%	PVSSAASVYAGAGGSGSR	R	I	95.00%	3.16	0.461	0	1	0	0	2	1,660.73	28	45	TRUE	
SNU216LR_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	7	7	0.04%	22.00%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	E	83.10%	5.91	0.021	0	0	1	0	2	2,919.35	51	81	TRUE	
SNU216LR_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	7	7	0.04%	22.00%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	8.42	0.0011	0	0	1	1	2	3,993.83	51	90	TRUE	
SNU216LR_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	7	7	0.04%	22.00%	TVQSLEIDLDSMR	R	N	95.00%	2.71	0.264	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216LR_PC4_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	99.90%	2	3	3	0.02%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.14	0.26	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC4_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	99.90%	2	3	3	0.02%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.48	0.502	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC4_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	6.01	0.39	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC4_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	3.98	0.491	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	9	18	0.11%	10.00%	FASDDEHDEHDENGATGPVK	K	R	95.00%	4	0.488	0	2	1	0	2	2,249.86	364	383	TRUE	
SNU216LR_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	9	18	0.11%	10.00%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	5.13	0.502	0	2	2	3	2	2,405.96	364	384	TRUE	
SNU216LR_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	9	18	0.11%	10.00%	SPSKPLPEVTDEYKNDVK	R	N	95.00%	4.26	0.329	0	0	1	0	2	2,126.01	92	109	TRUE	
SNU216LR_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	9	18	0.11%	10.00%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	4.81	0.518	0	0	2	0	2	2,479.00	362	383	TRUE	
SNU216LR_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	9	18	0.11%	10.00%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.63	0.48	0	0	2	3	2	2,635.11	362	384	TRUE	
SNU216LR_PC4_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	5.48%	DLSPTLIDNSAAK	R	Q	95.00%	2.71	0.328	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216LR_PC4_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	5.48%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.76	0.379	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC4_01	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	DSLSPVLHPSDLILTR	K	G	95.00%	3.78	0.495	0	1	1	0	2	1,842.94	311	326	TRUE	
SNU216LR_PC4_01	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	GTLDEEDEEADSDTDDIDHR	R	V	95.00%	4.05	0.492	0	1	1	0	2	2,356.86	327	346	TRUE	
SNU216LR_PC4_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	99.80%	2	3	3	0.02%	4.97%	ADREVQAEQPSSSSPR	K	R	95.00%	3.6	0.426	0	1	1	0	2	1,823.79	175	190	TRUE	
SNU216LR_PC4_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	99.80%	2	3	3	0.02%	4.97%	EVQAEQPSSSSPR	R	R	95.00%	3.17	0.455	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216LR_PC4_01	paternally expressed 10 isoform RF1	IPI00455806	36,966.10	98.70%	1	1	1	0.01%	4.31%	ASKSSPAGNSPAPL	K	-	95.00%	2.82	0.361	0	1	0	0	2	1,363.63	312	325	TRUE	
SNU216LR_PC4_01	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	3	6	0.04%	5.47%	FTDKDQQPSGSEGEDDDAEAALK	K	K	95.00%	3.43	0.212	0	0	1	0	2	2,612.99	164	186	TRUE	
SNU216LR_PC4_01	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	3	6	0.04%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.43	0.558	0	1	4	0	2	2,741.09	164	187	TRUE	
SNU216LR_PC4_01	5'-AMP-activated protein kinase subunit beta-2	IPI00013905	30,302.60	98.90%	1	1	1	0.01%	6.62%	DLSSSPPGPYGQEMYAFR	R	S	95.00%	3.47	0.417	0	1	0	0	2	2,081.87	180	197	TRUE	
SNU216LR_PC4_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	5	0.03%	5.63%	DRDYSDHPSGGSYR	R	D	95.00%	2.63	0.312	0	0	1	0	2	1,691.64	269	282	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	5	0.03%	5.63%	GLPPSMER	R	G	95.00%	1.87	0.412	0	4	0	0	2	966.4116	348	355	TRUE	
SNU216LR_PC4_01	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	40,991.20	100.00%	3	4	4	0.02%	5.38%	EDLSPAFDHSPNK	K	I	95.00%	3.09	0.368	0	1	0	0	2	1,536.64	295	307	TRUE	
SNU216LR_PC4_01	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	40,991.20	100.00%	3	4	4	0.02%	5.38%	ELSKEDLSPAFDHSPNK	K	I	95.00%	3.44	0.168	0	0	1	0	2	1,993.89	291	307	TRUE	
SNU216LR_PC4_01	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	40,991.20	100.00%	3	4	4	0.02%	5.38%	WKELSKEDLSPAFDHSPNK	R	I	95.00%	4.09	0.4	0	0	1	1	2	2,308.06	289	307	TRUE	
SNU216LR_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	6.36%	ASPSKPASAPASR	R	S	95.00%	2.86	0.393	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	6.36%	DMESPTKLDVTLAK	K	D	95.00%	3.58	0.223	0	1	1	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	6.36%	DMSPLSETEMALGK	K	D	94.60%	2.43	0.189	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	6.36%	ETERASPIKMDLAPSK	K	D	84.40%	2.51	0.138	0	1	0	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	6.36%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.53	0.436	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC4_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.60%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.48	0.275	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC4_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.60%	SLVGTPYWMAPELISR	K	L	95.00%	3.13	0.505	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.04%	4.56%	EKEISDDEAEEEK	R	G	95.00%	2.95	0.438	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.04%	4.56%	EKEISDDEAEEEKGEK	R	E	83.80%	2.66	0.215	0	0	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.04%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.3	0.313	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.04%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.65	0.373	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.04%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.25	0.37	0	1	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC4_01	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	2	2	0.01%	7.69%	KSASPEVSEGHENQHGQESEAK	R	A	95.00%	3.84	0.349	0	0	0	1	2	2,445.03	73	94	TRUE	
SNU216LR_PC4_01	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	2	2	0.01%	7.69%	SASPEVSEGHENQHGQESEAK	K	A	95.00%	3.74	0.344	0	0	1	0	2	2,316.94	74	94	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	3	4	8	0.05%	9.01%	IDASKNEEDEGHSNSSPR	K	H	95.00%	4.82	0.522	0	2	4	0	2	2,051.83	68	85	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	3	4	8	0.05%	9.01%	IFVGGLSPDTPEEK	K	I	95.00%	3.18	0.23	0	1	0	0	2	1,568.72	184	197	TRUE	
SNU216LR_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	3	4	8	0.05%	9.01%	NEEDEGHSNSSPR	K	H	95.00%	3.16	0.49	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216LR_PC4_01	MKI67 FHA domain-interacting nucleolar phosphc	IPI00154590	34,222.90	99.80%	2	2	2	0.01%	3.75%	KVSGTLDTPEK	K	T	95.00%	2.75	0.262	0	1	0	0	2	1,254.60	216	226	TRUE	
SNU216LR_PC4_01	MKI67 FHA domain-interacting nucleolar phosphc	IPI00154590	34,222.90	99.80%	2	2	2	0.01%	3.75%	VSGTLDTPEK	K	T	95.00%	2.33	0.251	0	1	0	0	2	1,126.50	217	226	TRUE	
SNU216LR_PC4_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.90%	2	2	2	0.01%	8.19%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.41	0.233	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC4_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.90%	2	2	2	0.01%	8.19%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	3.62	0.359	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC4_01	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	2	2	2	0.01%	3.87%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.4	0.283	0	0	2	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC4_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	2	2	2	0.01%	15.50%	GLLSDSMTDVPVDTGVAAR	K	T	95.00%	3.85	0.434	0	1	0	0	2	1,983.91	16	34	TRUE	
SNU216LR_PC4_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	2	2	2	0.01%	15.50%	SWHDVQVSSAYVK	R	T	95.00%	2.56	0.309	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216LR_PC4_01	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	99.80%	2	2	2	0.01%	10.10%	ARSNENLDKIDMSLDDIIK	K	L	95.00%	4.79	0.392	0	0	1	0	2	2,270.07	21	39	TRUE	
SNU216LR_PC4_01	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	99.80%	2	2	2	0.01%	10.10%	LVGATATSSPPPK	R	A	95.00%	3.21	0.404	0	1	0	0	2	1,305.65	8	20	TRUE	
SNU216LR_PC4_01	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	95.00%	1.78	0.213	1	0	0	0	2	1,044.38	133	139	TRUE	
SNU216LR_PC4_01	Tissue factor precursor	IPI00010338	33,067.30	100.00%	3	3	3	0.02%	5.76%	AGVGQSWKENSPLNVS	K	-	95.00%	3.8	0.422	0	1	0	0	2	1,752.80	280	295	TRUE	
SNU216LR_PC4_01	Tissue factor precursor	IPI00010338	33,067.30	100.00%	3	3	3	0.02%	5.76%	ENSPLNVS	K	-	93.20%	2.05	0.0655	1	0	0	0	2	939.3819	288	295	TRUE	
SNU216LR_PC4_01	Tissue factor precursor	IPI00010338	33,067.30	100.00%	3	3	3	0.02%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	3.14	0.492	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216LR_PC4_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	AEEDEILNRSPR	K	N	92.10%	2.36	0.169	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC4_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.14	0.32	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216LR_PC4_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.25	0.259	0	0	1	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC4_01	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	1	1	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	95.00%	2.96	0.208	0	0	0	1	2	2,531.23	30	50	TRUE	
SNU216LR_PC4_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	5.05	0.0587	0	1	0	0	2	2,428.13	618	639	TRUE	
SNU216LR_PC4_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	GADNDGSGSESGYTTPK	K	K	95.00%	3.8	0.528	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC4_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	NDSWGSFDLR	R	A	95.00%	1.89	0.277	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC4_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.02%	8.78%	RTSPQVLGSILK	K	S	95.00%	2.97	0.251	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC4_01	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	99.80%	1	1	1	0.01%	5.04%	NHSDSSTSESEVSSVSPLKNK	K	H	95.00%	4.1	0.326	0	0	1	0	2	2,299.01	211	231	TRUE	
SNU216LR_PC4_01	Matrin-3	IPI00017297	94,626.70	99.90%	1	2	2	0.01%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.6	0.406	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC4_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	3	3	4	0.02%	12.90%	APSPPVEHPR	R	L	95.00%	1.93	0.313	0	2	0	0	2	1,166.54	177	186	TRUE	
SNU216LR_PC4_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	3	3	4	0.02%	12.90%	RAQVLATIHGHAGAFPAAGDAGEGAPGGC	R	V	95.00%	5.16	0.42	0	0	0	1	2	3,249.52	282	315	TRUE	
SNU216LR_PC4_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	3	3	4	0.02%	12.90%	SRSFTLDDESLK	R	Y	95.00%	2.99	0.195	0	1	0	0	2	1,477.66	41	52	TRUE	
SNU216LR_PC4_01	Gastric-associated differentially-expressed protein	IPI00386208	14,866.80	100.00%	1	1	1	0.01%	11.00%	AAAYNIVPSSTGAAK	R	A	95.00%	3.2	0.388	0	1	0	0	2	1,500.71	26	40	TRUE	
SNU216LR_PC4_01	Coiled-coil domain-containing protein 16	IPI00043565	41,990.30	99.70%	1	1	1	0.01%	6.18%	KEEENADSDDEGELQDLLSQDWR	K	V	93.80%	2.89	0.182	0	0	1	0	2	2,801.14	344	366	TRUE	
SNU216LR_PC4_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	100.00%	3	3	5	0.03%	13.10%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	5.04	0.656	0	3	0	0	2	2,304.83	179	197	TRUE	
SNU216LR_PC4_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	100.00%	3	3	5	0.03%	13.10%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.38	0.406	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216LR_PC4_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	100.00%	3	3	5	0.03%	13.10%	NPLPNIDHELQELLIDRGEDVPSEEEEEENC	R	K	95.00%	4.44	0.31	0	0	0	1	2	4,314.88	162	197	TRUE	
SNU216LR_PC4_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.90%	2	3	6	0.04%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.18	0.511	0	2	2	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC4_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.90%	2	3	6	0.04%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	5.03	0.604	0	2	0	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	4	4	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.07	0.394	0	1	1	0	2	2,544.30	33	57	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	4	4	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPKEVINGNI	K	T	95.00%	3.81	0.3	0	0	1	1	2	3,411.78	33	65	TRUE	
SNU216LR_PC4_01	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	2	2	0.01%	2.59%	SSPVNNHHSPGQTPTLGQPEAR	K	A	95.00%	3.82	0.322	0	0	1	0	2	2,391.08	1522	1543	TRUE	
SNU216LR_PC4_01	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	2	2	0.01%	2.59%	VVTQRSEIGEKQDTELQEK	K	E	95.00%	3.1	0.258	0	0	1	0	2	2,297.10	663	681	TRUE	
SNU216LR_PC4_01	Citrate synthase, mitochondrial precursor	IPI00025366	51,713.80	100.00%	1	1	1	0.01%	3.00%	SMSTEGLMKFVDSK	K	S	95.00%	2.31	0.285	0	0	1	0	2	1,815.64	451	464	TRUE	
SNU216LR_PC4_01	Septin-2	IPI00014177	41,488.20	100.00%	2	5	7	0.04%	5.54%	IYHLPDAESDEDEDFK	K	E	95.00%	3.01	0.328	0	1	1	0	2	2,002.80	210	225	TRUE	
SNU216LR_PC4_01	Septin-2	IPI00014177	41,488.20	100.00%	2	5	7	0.04%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.78	0.421	0	1	3	1	2	2,517.05	210	229	TRUE	
SNU216LR_PC4_01	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	2	2	3	0.02%	10.10%	SLPVSVPVWGFK	K	E	95.00%	2.41	0.463	0	1	0	0	2	1,395.71	203	214	TRUE	
SNU216LR_PC4_01	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	2	2	3	0.02%	10.10%	SSDEENGPPSSPDLDR	R	I	95.00%	3.24	0.366	0	2	0	0	2	1,861.65	222	237	TRUE	
SNU216LR_PC4_01	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	95.00%	2.44	0.293	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.14	0.212	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	GSPTSAYPER	K	K	87.40%	1.8	0.28	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	HGSDPAFAPGPR	R	G	95.00%	2.62	0.508	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	KGSPTPGFSTR	R	R	95.00%	2.24	0.28	0	1	0	0	2	1,214.56	879	889	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	RGSPTTGFIEQK	R	G	95.00%	2.6	0.179	0	0	1	0	2	1,400.66	890	901	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	RGSPVPPVPERR	R	S	87.00%	3.15	0.108	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	RLSLGQGDSTEAATEER	R	G	95.00%	4.44	0.436	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	9	9	0.05%	9.41%	RLSLGQGDSTEAATEERGPR	R	A	95.00%	3.25	0.352	0	0	1	0	2	2,210.02	1001	1020	TRUE	
SNU216LR_PC4_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	GKHSLDSDEEEDDDDGGSSK	K	Y	95.00%	4.17	0.524	0	0	1	0	2	2,201.80	43	62	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	HSLDSDEEEDDDDGGSSK	K	Y	95.00%	3.11	0.482	0	1	1	0	2	2,016.68	45	62	TRUE	
SNU216LR_PC4_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	KGPGQPSSPQR	R	L	95.00%	2.26	0.343	0	1	0	0	2	1,218.56	188	198	TRUE	
SNU216LR_PC4_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	KGPGQPSSPQRLDR	R	L	95.00%	2.87	0.21	0	1	0	0	2	1,602.78	188	201	TRUE	
SNU216LR_PC4_01	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	2	3	8	0.05%	5.23%	SNSPLPVPPSK	R	A	95.00%	2.68	0.544	2	5	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC4_01	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	2	3	8	0.05%	5.23%	SYSDMKR	R	A	82.90%	1.47	0.273	0	1	0	0	2	966.3751	155	161	TRUE	
SNU216LR_PC4_01	Tumor necrosis factor receptor superfamily memt	IPI00004413	71,845.00	98.70%	1	1	1	0.01%	2.75%	LENSALLTVEPSPQDKNK	K	G	95.00%	4.3	0.272	0	1	0	0	2	2,063.01	530	547	TRUE	
SNU216LR_PC4_01	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.80%	2	2	2	0.01%	5.81%	GPSHPLDLGTSSPNTSQIHWTPYR	R	A	95.00%	3.69	0.256	0	0	0	1	2	2,728.25	595	618	TRUE	
SNU216LR_PC4_01	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.80%	2	2	2	0.01%	5.81%	SPADPTDLGGQTSPR	R	R	95.00%	3.14	0.385	0	1	0	0	2	1,578.68	551	565	TRUE	
SNU216LR_PC4_01	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	3.54	0.449	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216LR_PC4_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.81	0.402	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216LR_PC4_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.3	0.413	0	2	1	0	2	1,767.78	38	56	TRUE	
SNU216LR_PC4_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.41	0.472	0	1	2	0	2	2,132.89	38	58	TRUE	
SNU216LR_PC4_01	mannosidase, endo-alpha	REVERSE_IPI00478860-R	53,674.00	99.70%	1	1	1	0.01%	2.16%	RTLELYLGPK	K	H	95.00%	1.86	0.303	0	1	0	0	2	1,269.66	23	32	TRUE	
SNU216LR_PC4_01	Dual specificity mitogen-activated protein kinase	IPI00219604	43,309.00	99.80%	1	1	1	0.01%	8.42%	TPGRPLSSYGMDSRPPPMAIFELLDYIVNEPPI	R	L	95.00%	3.76	0.227	0	0	0	1	2	3,767.82	291	323	TRUE	
SNU216LR_PC4_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	1	2	5	0.03%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	5.71	0.502	0	0	1	4	2	3,607.45	259	290	TRUE	
SNU216LR_PC4_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	99.70%	1	1	1	0.01%	3.47%	ATNESEDEIPQLVPIGK	K	K	95.00%	3.15	0.324	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	2	3	3	0.02%	12.60%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	5.24	0.488	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	2	3	3	0.02%	12.60%	KKDASDDLDDLNFFNQK	R	K	95.00%	3.81	0.271	0	1	1	0	2	2,092.92	63	79	TRUE	
SNU216LR_PC4_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.80%	2	2	2	0.01%	2.76%	ATSPVKSTTSITDAK	K	S	95.00%	3.11	0.44	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC4_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.80%	2	2	2	0.01%	2.76%	TPISPLKTGVSKPIVK	K	S	95.00%	3.19	0.376	0	0	1	0	2	1,745.00	320	335	TRUE	
SNU216LR_PC4_01	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	2	2	2	0.01%	7.36%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	3.65	0.479	0	0	1	0	2	2,302.01	351	371	TRUE	
SNU216LR_PC4_01	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	2	2	2	0.01%	7.36%	YRDVSPFDHSR	R	I	95.00%	2.08	0.255	0	0	1	0	2	1,458.62	46	56	TRUE	
SNU216LR_PC4_01	Syntaxin-4	IPI00029730	34,179.70	99.80%	1	1	1	0.01%	6.40%	AIEPQKEEADENYNSVNTR	K	M	95.00%	3.5	0.289	0	0	1	0	2	2,286.99	103	121	TRUE	
SNU216LR_PC4_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.90%	2	2	2	0.01%	4.20%	AHAWPSPYKDYEVK	R	K	95.00%	2.53	0.215	0	1	0	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC4_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.90%	2	2	2	0.01%	4.20%	AHAWPSPYKDYEVKK	R	E	95.00%	3.14	0.235	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216LR_PC4_01	26 kDa protein	IPI00217978	26,288.40	100.00%	3	3	4	0.02%	16.00%	NRHSPDHPGMGSSQASSSSSLR	K	-	95.00%	4.58	0.452	0	0	2	0	2	2,362.00	223	244	TRUE	
SNU216LR_PC4_01	26 kDa protein	IPI00217978	26,288.40	100.00%	3	3	4	0.02%	16.00%	TQDPVPPETPSDSDHK	R	K	95.00%	3.27	0.467	0	1	0	0	2	1,829.76	184	199	TRUE	
SNU216LR_PC4_01	26 kDa protein	IPI00217978	26,288.40	100.00%	3	3	4	0.02%	16.00%	TQDPVPPETPSDSDHKK	R	K	95.00%	4.25	0.323	0	0	1	0	2	1,957.85	184	200	TRUE	
SNU216LR_PC4_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	4.85%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	3.4	0.418	0	0	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC4_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	4.85%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	2.96	0.362	0	1	1	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC4_01	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	6	0.04%	4.98%	EPAITSQNSPEAR	K	E	95.00%	2.47	0.384	0	1	0	0	2	1,479.65	92	104	TRUE	
SNU216LR_PC4_01	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	6	0.04%	4.98%	KEPAITSQNSPEAR	K	E	95.00%	3.28	0.246	0	1	0	0	2	1,607.74	91	104	TRUE	
SNU216LR_PC4_01	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	6	0.04%	4.98%	KKEPAITSQNSPEAR	K	E	95.00%	4.41	0.406	0	2	2	0	2	1,735.84	90	104	TRUE	
SNU216LR_PC4_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	NWTEDMEGGISSPVK	R	K	95.00%	2.45	0.333	0	1	0	0	2	1,729.71	312	326	TRUE	
SNU216LR_PC4_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	4.63	0.44	0	2	1	0	2	1,857.81	312	327	TRUE	
SNU216LR_PC4_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	SPFNSPSPQDSPR	K	L	95.00%	3.03	0.357	0	1	0	0	2	1,495.62	333	345	TRUE	
SNU216LR_PC4_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	3.65	0.383	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216LR_PC4_01	Junctional adhesion molecule A precursor	IPI00001754,IPI00069985,IP	28,231.40	99.80%	1	2	2	0.01%	5.35%	KVIYSQPSARSEGEFK	K	Q	95.00%	3.61	0.313	0	1	1	0	2	1,905.91	238	253	TRUE	
SNU216LR_PC4_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	99.40%	2	2	2	0.01%	2.69%	ASEDTTSGSPPKK	R	S	88.50%	1.93	0.23	0	1	0	0	2	1,384.60	456	468	TRUE	
SNU216LR_PC4_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	99.40%	2	2	2	0.01%	2.69%	RASEDTTSGSPPKK	R	S	95.00%	2.47	0.34	0	0	1	0	2	1,540.70	455	468	TRUE	
SNU216LR_PC4_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	2	2	0.01%	7.40%	GVGSPEPGPTAPYLGR	R	S	95.00%	3.18	0.327	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216LR_PC4_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	2	2	0.01%	7.40%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.68	0.252	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216LR_PC4_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	3	6	0.04%	5.48%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.47	0.526	0	1	4	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC4_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	3	6	0.04%	5.48%	SHISDQSPLSSK	R	R	95.00%	2.42	0.394	0	1	0	0	2	1,365.60	344	355	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC23131	IPI00457284	164,200.50	99.80%	1	1	1	0.01%	0.87%	VSETQMCESNSSK	K	E	95.00%	1.28	0.432	0	0	1	0	2	1,742.51	502	514	TRUE	
SNU216LR_PC4_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	99.80%	2	2	2	0.01%	1.66%	NSLESISSIDR	R	E	95.00%	1.96	0.251	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216LR_PC4_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	99.80%	2	2	2	0.01%	1.66%	QSPASPPPLGGGAPVR	R	T	95.00%	2.34	0.275	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC4_01	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	99.80%	1	1	1	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	3.04	0.343	0	1	0	0	2	1,842.71	375	389	TRUE	
SNU216LR_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	5.35	0.0923	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216LR_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	4.73	0.0391	0	0	1	0	2	3,118.29	334	362	TRUE	
SNU216LR_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DLHQGIEAASDEEDLR	R	W	95.00%	3.06	0.294	0	1	0	0	2	1,877.79	267	282	TRUE	
SNU216LR_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	2.93	0.28	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216LR_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	GGRSPDEVTLTSIVPTR	K	D	95.00%	3.07	0.205	0	1	1	0	2	1,864.92	317	333	TRUE	
SNU216LR_PC4_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	5	0.03%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.1	0.456	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC4_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	5	0.03%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.81	0.334	0	0	2	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC4_01	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	1	1	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	3.21	0.448	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC4_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	3.23	0.463	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216LR_PC4_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	2.89	0.259	0	0	1	0	2	1,915.77	775	790	TRUE	
SNU216LR_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	10	17	0.10%	15.40%	AGDLLEDSPK	R	R	95.00%	2.76	0.314	1	1	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	10	17	0.10%	15.40%	AGDLLEDSPKRPK	R	E	95.00%	3.44	0.241	0	1	2	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	10	17	0.10%	15.40%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.2	0.365	0	3	3	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	10	17	0.10%	15.40%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.43	0.403	0	0	2	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	10	17	0.10%	15.40%	KGNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.65	0.396	0	1	2	0	2	2,332.99	126	146	TRUE	
SNU216LR_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	10	17	0.10%	15.40%	RAGDLLEDSPK	R	R	95.00%	2.17	0.268	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216LR_PC4_01	Hypothetical protein FLJ20455	IPI00016405	27,626.80	99.90%	2	3	3	0.02%	9.39%	KLENSPLGEALR	K	S	94.80%	2.82	0.123	0	1	0	0	2	1,406.70	104	115	TRUE	
SNU216LR_PC4_01	Hypothetical protein FLJ20455	IPI00016405	27,626.80	99.90%	2	3	3	0.02%	9.39%	RSSPPGHYYQK	R	S	95.00%	3.11	0.405	0	1	1	0	2	1,399.62	121	131	TRUE	
SNU216LR_PC4_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.50%	2	2	2	0.01%	5.04%	EESEESEAEPVQR	R	T	89.70%	2.04	0.216	0	1	0	0	2	1,678.59	194	206	TRUE	
SNU216LR_PC4_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.50%	2	2	2	0.01%	5.04%	EVSDSEAGGGPQGER	R	K	95.00%	3.12	0.495	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216LR_PC4_01	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.80%	2	2	2	0.01%	3.56%	ALPNNTSSSPQPK	R	K	95.00%	2.24	0.294	0	1	0	0	2	1,420.65	307	319	TRUE	
SNU216LR_PC4_01	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.80%	2	2	2	0.01%	3.56%	RALPNNTSSSPQPK	K	K	95.00%	2.77	0.387	0	1	0	0	2	1,576.75	306	319	TRUE	
SNU216LR_PC4_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	4	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	3.08	0.319	0	0	0	2	2	2,311.08	198	217	TRUE	
SNU216LR_PC4_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	4	0.02%	10.10%	RSPSPYYSR	R	D	88.00%	2.06	0.173	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC4_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	4	0.02%	10.10%	SPSPYYSR	R	D	95.00%	1.68	0.348	1	0	0	0	2	1,116.38	264	271	TRUE	IPI00013891

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	99.80%	2	2	2	0.01%	6.41%	RFTPPSTALSPGK	R	M	95.00%	2.15	0.318	0	1	0	0	2	1,438.71	39	51	TRUE	
SNU216LR_PC4_01	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	99.80%	2	2	2	0.01%	6.41%	TAMRVSPHHPAPTPNPR	R	A	95.00%	3.27	0.416	0	0	0	1	2	1,945.92	234	250	TRUE	
SNU216LR_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	6	6	7	0.04%	23.60%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.9	0.46	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	6	6	7	0.04%	23.60%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	79.60%	6.18	0.0068	0	0	1	0	2	3,553.49	264	296	TRUE	
SNU216LR_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	6	6	7	0.04%	23.60%	QSSPSGSEQLVR	R	R	95.00%	2.81	0.32	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	6	6	7	0.04%	23.60%	RSSTSGDTEEEEEEEVVPFSSDEQK	R	R	84.10%	4.96	0.0568	0	0	1	0	2	2,990.13	16	40	TRUE	
SNU216LR_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	6	6	7	0.04%	23.60%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	85.00%	6.17	0.016	0	0	2	0	2	3,146.24	16	41	TRUE	
SNU216LR_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	6	6	7	0.04%	23.60%	STGSPTQETQAPFIAK	K	R	95.00%	3.14	0.352	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC4_01	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	3	3	3	0.02%	18.80%	ELEAIFGRPVVDGEEGEPHSISPR	K	P	95.00%	4.38	0.422	0	0	1	0	2	2,700.27	274	297	TRUE	
SNU216LR_PC4_01	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	3	3	3	0.02%	18.80%	PRPPGRPVSGHGMDSR	R	P	95.00%	2.27	0.262	0	0	0	1	2	1,782.82	298	313	TRUE	
SNU216LR_PC4_01	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	3	3	3	0.02%	18.80%	RKPVLPALTINPTIAEGPSPTSEGASEANLVD	R	K	95.00%	9.55	0.0267	0	0	1	0	2	3,693.91	5	39	TRUE	
SNU216LR_PC4_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	1	1	1	0.01%	3.08%	KSFTPDHVVYAR	R	S	95.00%	2.69	0.234	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216LR_PC4_01	Golgi phosphoprotein 3	IPI00005490	33,811.50	99.80%	1	1	1	0.01%	5.37%	AAGGGAGSSEDDAQSR	R	R	95.00%	3.09	0.489	0	1	0	0	2	1,515.57	28	43	TRUE	
SNU216LR_PC4_01	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	2	2	0.01%	8.98%	DLGSTEDGDGTDDFLTDKEDEK	K	A	95.00%	4.9	0.567	0	1	0	0	2	2,481.97	180	201	TRUE	
SNU216LR_PC4_01	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	2	2	0.01%	8.98%	KDLGSTEDGDGTDDFLTDKEDEK	R	A	95.00%	5.65	0.434	0	0	1	0	2	2,610.06	179	201	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.80%	2	2	2	0.01%	5.99%	DGLAPEKTSPDRDK	R	K	95.00%	2.42	0.294	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216LR_PC4_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.80%	2	2	2	0.01%	5.99%	KKEQSEVSVSPR	K	A	95.00%	2.4	0.283	0	0	1	0	2	1,453.70	23	34	TRUE	
SNU216LR_PC4_01	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.80%	2	2	2	0.01%	1.31%	ANSWQLVETPEK	K	R	95.00%	2.89	0.154	0	1	0	0	2	1,481.67	904	915	TRUE	
SNU216LR_PC4_01	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.80%	2	2	2	0.01%	1.31%	ANSWQLVETPEKR	K	K	95.00%	2.89	0.146	0	1	0	0	2	1,637.77	904	916	TRUE	
SNU216LR_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.04%	11.90%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.36	0.507	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.04%	11.90%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.84	0.387	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216LR_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.04%	11.90%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.72	0.21	0	1	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.04%	11.90%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	4.3	0.471	0	0	1	0	2	1,912.96	264	282	TRUE	
SNU216LR_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.04%	11.90%	SPGAPGPLTLK	R	E	95.00%	1.87	0.276	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC4_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	3	3	0.02%	5.24%	NQGIEGSPGGR	R	V	95.00%	1.97	0.304	0	1	0	0	2	1,151.48	187	197	TRUE	
SNU216LR_PC4_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	3	3	0.02%	5.24%	SPPTQVAISSDSAR	R	K	95.00%	2.7	0.463	0	1	0	0	2	1,495.68	201	214	TRUE	
SNU216LR_PC4_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	3	3	0.02%	5.24%	VTRSPPTQVAISSDSAR	R	K	95.00%	2.64	0.229	0	1	0	0	2	1,851.90	198	214	TRUE	
SNU216LR_PC4_01	Cell division protein kinase 2	IPI00031681	33,930.70	100.00%	1	2	2	0.01%	7.72%	IGEGTYGVVYK	K	A	95.00%	2.56	0.349	0	2	0	0	2	1,265.58	10	20	FALSE	IPI00026689
SNU216LR_PC4_01	Cell division protein kinase 2	IPI00031681	33,930.70	100.00%	1	2	2	0.01%	7.72%	TYTHEVVTLWYR	R	A	95.00%	2.4	0.369	0	1	1	0	2	1,647.76	158	169	TRUE	
SNU216LR_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	6	8	9	0.05%	14.90%	EESEEEEDEDDEEEEEEEK	R	E	95.00%	4.31	0.709	0	1	0	0	2	2,465.79	30	48	TRUE	
SNU216LR_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	6	8	9	0.05%	14.90%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	6.07	0.646	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216LR_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	6	8	9	0.05%	14.90%	EESEEEEDEDDEEEEEEEKEKSLIVEGK	R	R	95.00%	4.37	0.417	0	0	1	0	2	3,449.35	30	57	TRUE	
SNU216LR_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	6	8	9	0.05%	14.90%	EESSDDEDKESEEEPPKK	K	T	91.00%	1.87	0.262	0	1	0	0	2	2,346.78	241	258	TRUE	
SNU216LR_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	6	8	9	0.05%	14.90%	EPEMPGPREESEEEEDEDDEEEEEEEKEK	K	S	95.00%	4.81	0.503	0	0	1	0	2	3,616.33	22	50	TRUE	
SNU216LR_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	6	8	9	0.05%	14.90%	NKEESSDDEDKESEEEPPK	K	K	95.00%	2.72	0.571	0	2	1	0	2	2,460.83	239	257	TRUE	
SNU216LR_PC4_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.40%	2	2	2	0.01%	2.75%	EEQLIPQMGVTSSGLNQVLSQQANQEISPL	R	L	88.90%	3.54	0.172	0	0	0	1	2	4,144.90	614	649	TRUE	
SNU216LR_PC4_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.40%	2	2	2	0.01%	2.75%	TAFYNEDDSEEEQR	R	Q	95.00%	3.41	0.507	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216LR_PC4_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.80%	2	4	6	0.04%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.95	0.505	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216LR_PC4_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.80%	2	4	6	0.04%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.79	0.341	0	0	2	2	2	2,858.38	8	33	TRUE	
SNU216LR_PC4_01	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	1	1	1	0.01%	6.55%	DHSSQSEEEVVEGEK	R	E	95.00%	3.62	0.547	0	1	0	0	2	1,768.69	115	129	TRUE	
SNU216LR_PC4_01	Protein LYRIC	IPI00328715	63,838.40	99.80%	1	1	1	0.01%	3.09%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	3.48	0.172	0	0	1	0	2	2,152.93	415	432	TRUE	
SNU216LR_PC4_01	Pyruvate dehydrogenase E1 component alpha sul	IPI00306301	43,296.50	99.80%	1	2	4	0.02%	3.59%	YHGHSMSDPGVSYR	R	T	95.00%	2.86	0.342	0	2	2	0	2	1,672.66	289	302	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	AALAPAKESPR	R	K	95.00%	2.24	0.26	0	1	0	0	2	1,190.59	898	908	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	AALAPAKESPRK	R	G	95.00%	2.35	0.307	0	0	1	0	2	1,318.69	898	909	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	AVATAAQAQTGPEEDSGSSEEESDSEEEAET	K	P	95.00%	3.4	0.323	0	0	0	1	2	3,812.51	853	888	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	KLGAGEGGEASVSPEK	K	T	95.00%	3.25	0.336	0	1	0	0	2	1,595.73	1366	1381	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	KLGAGEGGEASVSPEKTSTTSK	K	G	92.90%	3.57	0.135	0	0	1	0	2	2,201.03	1366	1387	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	KLSGDQPAAR	R	T	95.00%	1.78	0.276	0	1	0	0	2	1,122.53	1348	1357	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	LGAGEGGEASVSPEK	K	T	95.00%	3.26	0.388	0	1	0	0	2	1,467.64	1367	1381	TRUE	
SNU216LR_PC4_01	Treacle protein	IPI00298696,IPI00747047	152,102.50	100.00%	8	9	9	0.05%	5.67%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.26	0.256	0	1	1	0	2	2,072.94	1367	1387	TRUE	
SNU216LR_PC4_01	Isoform 1 of RNA-binding protein with serine-rich	IPI00033561	34,209.60	100.00%	1	1	1	0.01%	1.97%	APSPTK	R	R	83.90%	1.44	0.136	1	0	0	0	2	680.3016	25	30	TRUE	
SNU216LR_PC4_01	Glutamate-rich WD repeat-containing protein 1	IPI00027831	49,418.40	99.80%	1	2	4	0.02%	6.73%	MHNLHGTKPPPSEGSDEEEEEEDEEDEEER	R	K	95.00%	5.61	0.687	0	0	2	2	2	3,669.34	108	137	TRUE	
SNU216LR_PC4_01	Isoform 2 of Alkylated repair protein alkB homolo	IPI00413659,IPI00759562	52,460.30	100.00%	3	3	4	0.02%	5.35%	KYQEDSDPER	R	S	86.90%	1.9	0.21	0	1	0	0	2	1,346.53	59	68	TRUE	
SNU216LR_PC4_01	Isoform 2 of Alkylated repair protein alkB homolo	IPI00413659,IPI00759562	52,460.30	100.00%	3	3	4	0.02%	5.35%	KYQEDSDPERSDYEEQQLQK	R	E	95.00%	3.48	0.265	0	0	1	0	2	2,595.09	59	78	TRUE	
SNU216LR_PC4_01	Isoform 2 of Alkylated repair protein alkB homolo	IPI00413659,IPI00759562	52,460.30	100.00%	3	3	4	0.02%	5.35%	YQEDSDPERSDYEEQQLQKEEEAR	K	K	95.00%	3.25	0.227	0	0	2	0	2	3,081.26	60	83	TRUE	
SNU216LR_PC4_01	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	GDSESEEEDELEVPVPSR	K	F	95.00%	4.16	0.537	0	2	0	0	2	2,148.79	75	92	TRUE	
SNU216LR_PC4_01	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	4.2	0.319	0	1	1	0	2	2,633.05	70	92	TRUE	
SNU216LR_PC4_01	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	3	4	5	0.03%	22.70%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	4.87	0.639	0	2	1	0	2	2,575.01	239	266	TRUE	
SNU216LR_PC4_01	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	3	4	5	0.03%	22.70%	GFGFVTFSSMAEVDAAMAARPHSIDGR	R	V	95.00%	2.94	0.209	0	0	0	1	2	2,907.30	63	89	TRUE	
SNU216LR_PC4_01	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	3	4	5	0.03%	22.70%	NMGGPYGGGNYGPGGSGGSGGYGGR	R	S	95.00%	5.1	0.0069	0	1	0	0	2	2,269.87	326	350	TRUE	
SNU216LR_PC4_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	3.25	0.294	0	0	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC4_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	YRSPYSGPK	R	F	82.80%	2.37	0.157	0	0	1	0	2	1,134.50	95	103	TRUE	
SNU216LR_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	9	0.05%	15.30%	ETSVSKEDTDHEEK	K	A	95.00%	3.11	0.463	0	1	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	9	0.05%	15.30%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	4.28	0.123	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216LR_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	9	0.05%	15.30%	QSNASSDVEVEEK	K	E	95.00%	3.24	0.393	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216LR_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	9	0.05%	15.30%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	3.6	0.471	0	0	1	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	9	0.05%	15.30%	QVETEEAGVVTTATASVNLKVSPK	K	R	87.50%	5.76	0.0316	0	0	1	0	2	2,538.27	156	179	TRUE	
SNU216LR_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	9	0.05%	15.30%	TGVTSTSDSEEEGDDQEGEKKR	K	K	81.90%	3.65	0.0068	0	1	0	0	2	2,543.97	267	288	TRUE	
SNU216LR_PC4_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	7.11%	AIGSTSKPQESPK	R	G	95.00%	2.6	0.392	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216LR_PC4_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	7.11%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.85	0.292	0	0	1	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC4_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	7.11%	YVTAFNGELEDYMSDR	R	V	83.50%	2.05	0.231	0	0	1	0	2	2,149.73	565	580	TRUE	
SNU216LR_PC4_01	Isoform SRP40-1 of Splicing factor, arginine/serin	IPI00012341,IPI00555857	31,264.80	99.30%	1	1	1	0.01%	4.41%	SRSVSRSPVPEK	K	S	85.70%	2.09	0.185	0	1	0	0	2	1,568.63	227	238	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 3 subunit 6	IPI00013068	52,222.60	100.00%	1	1	1	0.01%	4.49%	LGHVVMGNNAVSPYQQVIEK	K	T	95.00%	3.93	0.433	0	0	1	0	2	2,263.09	388	407	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	Isoform 1 of Protein NDRG3	IPI00005605	41,408.90	100.00%	1	1	2	0.01%	4.53%	THSTSSSLGSGESPFSR	R	S	95.00%	4.37	0.0913	0	2	0	0	2	1,803.75	329	345	TRUE	
SNU216LR_PC4_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.91	0.181	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC4_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.5	0.25	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC4_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	4	5	0.03%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	3.95	0.336	0	1	0	0	2	2,319.81	56	73	TRUE	
SNU216LR_PC4_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	4	5	0.03%	10.50%	KSLDSDESEDEEDDYQQKR	K	K	95.00%	3.63	0.229	0	0	1	0	2	2,475.91	56	74	TRUE	
SNU216LR_PC4_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	4	5	0.03%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.69	0.596	0	2	0	0	2	2,111.75	57	73	TRUE	
SNU216LR_PC4_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	4	5	0.03%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	3.32	0.267	0	0	1	0	2	2,347.81	57	74	TRUE	
SNU216LR_PC4_01	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	99.80%	2	2	2	0.01%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.87	0.465	0	1	0	0	2	1,872.96	270	286	TRUE	
SNU216LR_PC4_01	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	99.80%	2	2	2	0.01%	9.80%	SASSDTSEELNSQDSPPK	R	Q	95.00%	4.41	0	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216LR_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	7.17%	ETQSPEQVKSEK	K	L	95.00%	2.61	0.257	0	1	0	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	7.17%	KAEGEPQEESPLK	K	S	95.00%	3.95	0.419	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	7.17%	KAEGEPQEESPLKSK	K	S	95.00%	4.68	0.424	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	7.17%	KETQSPEQVKSEK	K	L	95.00%	2.68	0.199	0	0	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	7.17%	NTPSQHSHSIQHSPER	K	S	95.00%	2.43	0.338	0	1	1	0	2	1,921.83	256	271	TRUE	
SNU216LR_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	7.17%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.91	0.236	0	0	0	1	2	2,903.23	181	204	TRUE	
SNU216LR_PC4_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	4	4	0.02%	9.73%	KKSPNELVDDLFK	R	G	95.00%	3.9	0.436	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC4_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	4	4	0.02%	9.73%	LGSTAPQVLSTSSPAQQAENEAK	K	A	95.00%	4.74	0.402	0	1	1	0	2	2,394.12	262	284	TRUE	
SNU216LR_PC4_01	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	99.80%	1	1	1	0.01%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	95.00%	3.6	0.209	0	0	1	0	2	2,020.92	233	250	TRUE	
SNU216LR_PC4_01	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	3	3	0.02%	9.80%	AEDGSVIDYELIDQDAR	R	D	95.00%	3.05	0.314	0	1	0	0	2	1,988.85	198	214	TRUE	
SNU216LR_PC4_01	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	3	3	0.02%	9.80%	LSLEGDHSTPPSAYGSVK	K	A	95.00%	2.85	0.362	0	1	1	0	2	1,924.87	29	46	TRUE	
SNU216LR_PC4_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	4	0.02%	4.61%	PAPPQEESPSSEAK	R	S	94.20%	2.2	0.219	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216LR_PC4_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	4	0.02%	4.61%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.26	0.256	0	1	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC4_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	4	0.02%	4.61%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	3.67	0.212	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC4_01	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	1	1	1	0.01%	3.50%	GKLEAIITPPPAK	K	K	95.00%	2.45	0.206	0	1	0	0	2	1,414.77	122	134	TRUE	
SNU216LR_PC4_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	3	3	0.02%	18.80%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.76	0.356	0	0	1	0	2	2,159.93	200	217	TRUE	
SNU216LR_PC4_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	3	3	0.02%	18.80%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	3.63	0.398	0	0	1	0	2	2,654.15	200	221	TRUE	
SNU216LR_PC4_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	3	3	0.02%	18.80%	RGLGAGAGAGEESPATSLPR	R	M	95.00%	3.82	0.348	0	0	1	0	2	1,933.91	78	97	TRUE	
SNU216LR_PC4_01	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	2	2	0.01%	8.70%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	4.84	0.363	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216LR_PC4_01	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	2	2	0.01%	8.70%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	3.78	0.383	0	0	1	0	2	2,497.08	117	137	TRUE	
SNU216LR_PC4_01	Isoform 1 of Actin-like protein 6A	IPI00003627,IPI00216622	47,461.10	100.00%	2	2	2	0.01%	3.03%	EAVREGSPANWK	K	R	90.50%	2.62	0.194	0	1	0	0	2	1,423.64	227	238	TRUE	
SNU216LR_PC4_01	Isoform 1 of Actin-like protein 6A	IPI00003627,IPI00216622	47,461.10	100.00%	2	2	2	0.01%	3.03%	EGSPANWKR	R	K	95.00%	1.79	0.303	0	1	0	0	2	1,124.49	231	239	TRUE	
SNU216LR_PC4_01	Protein FAM84B	IPI00064666	34,474.00	99.80%	1	2	4	0.02%	7.42%	TTPPPGRPPAPSSEEEDGEAVAH	R	-	95.00%	3.08	0.412	0	1	3	0	2	2,408.04	288	310	TRUE	
SNU216LR_PC4_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	2	0.01%	3.09%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.68	0.566	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC4_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	2	0.01%	3.09%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.5	0.398	0	0	1	0	2	3,523.46	112	140	TRUE	
SNU216LR_PC4_01	TXNDC14 protein	IPI00556619	29,643.50	98.70%	1	1	1	0.01%	9.69%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4	0.244	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216LR_PC4_01	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.48	0.355	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216LR_PC4_01	Tropomodulin-3	IPI00005087	39,596.10	100.00%	1	2	2	0.01%	5.40%	YKDLDEDELLGNLSETELK	K	Q	95.00%	4.84	0.43	0	1	1	0	2	2,304.05	12	30	TRUE	
SNU216LR_PC4_01	Hypothetical protein DKFZp686L2367	REVERSE_IPI00470461-R	284,630.10	99.80%	1	1	1	0.01%	0.88%	DEAKSNMEEEKDEDDSSSSEMK	R	E	95.00%	2.9	0.246	0	0	1	0	2	2,759.89	112	133	TRUE	
SNU216LR_PC4_01	Hsc70-interacting protein	IPI00032826	41,332.40	100.00%	1	1	1	0.01%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	4.47	0.444	0	0	1	0	2	2,745.07	64	85	TRUE	
SNU216LR_PC4_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	17	0.10%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.16	0.439	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216LR_PC4_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	17	0.10%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	5.48	0.289	0	0	2	1	2	4,104.59	78	115	TRUE	
SNU216LR_PC4_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	17	0.10%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	7.56	0.222	0	0	4	8	2	4,260.69	78	116	TRUE	
SNU216LR_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	8.40%	DNSPPPAFKPEPPK	R	A	92.30%	2.37	0.237	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	8.40%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.66	0.283	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	8.40%	KVQVAALQASPPLDQDDR	R	A	95.00%	2.16	0.336	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	8.40%	SIDQDYER	R	A	88.40%	1.71	0.238	0	1	0	0	2	1,105.42	244	251	TRUE	
SNU216LR_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	8.40%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	3.65	0.389	0	0	1	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	8.40%	SRSWEDSPER	R	G	95.00%	2.28	0.186	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC4_01	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.80%	2	2	2	0.01%	14.60%	GSYNGQVGWFPSNYVTEEGDSPLGDHVG	R	L	95.00%	4.19	0.317	0	0	1	0	2	3,592.55	146	178	TRUE	
SNU216LR_PC4_01	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.80%	2	2	2	0.01%	14.60%	RKPSVPDSASPADDSFVDPGER	K	L	95.00%	3.09	0.235	0	0	1	0	2	2,409.07	82	103	TRUE	
SNU216LR_PC4_01	Isoform CNPI of 2',3'-cyclic-nucleotide 3'-phosph	IPI00220993,IPI00306667	47,580.60	100.00%	1	1	1	0.01%	2.99%	NQWQLSADDLKK	K	L	94.90%	2.44	0.176	0	1	0	0	2	1,525.70	165	176	TRUE	
SNU216LR_PC4_01	Emerin	IPI00032003	28,994.90	100.00%	1	1	1	0.01%	8.66%	RLSPPSSSAASSYSFSDLNSTR	R	G	86.30%	2.11	0.231	0	1	0	0	2	2,397.07	47	68	TRUE	
SNU216LR_PC4_01	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	100.00%	3	4	4	0.02%	11.80%	EMPQDLRSPARTPPSEEDSAEAER	K	L	95.00%	4.48	0.283	0	0	1	1	2	2,858.17	70	93	TRUE	
SNU216LR_PC4_01	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	100.00%	3	4	4	0.02%	11.80%	SRTPSASNDDQQE	R	-	95.00%	3.03	0.346	0	1	0	0	2	1,514.58	301	313	TRUE	
SNU216LR_PC4_01	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	100.00%	3	4	4	0.02%	11.80%	TPSASNDDQQE	R	-	95.00%	2.39	0.329	0	1	0	0	2	1,271.44	303	313	TRUE	
SNU216LR_PC4_01	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	100.00%	2	4	8	0.05%	6.46%	GTGQSDDSDIWDDTALIK	R	A	95.00%	4.15	0.436	0	2	2	0	2	2,016.84	24	41	TRUE	
SNU216LR_PC4_01	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	100.00%	2	4	8	0.05%	6.46%	RGTGQSDDSDIWDDTALIK	R	A	95.00%	3.05	0.249	0	2	2	0	2	2,172.95	23	41	TRUE	
SNU216LR_PC4_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.05	0.192	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC4_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	3.92	0.372	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC4_01	CDNA FLJ45525 fis, clone BRTHA2026311, highly	IPI00299571	53,929.90	100.00%	2	3	3	0.02%	6.30%	DGELPVEDDIDLSDVELDDLGKDEL	R	-	95.00%	5.67	0.452	0	1	1	0	2	2,838.23	468	492	TRUE	
SNU216LR_PC4_01	CDNA FLJ45525 fis, clone BRTHA2026311, highly	IPI00299571	53,929.90	100.00%	2	3	3	0.02%	6.30%	EPWDGRDGELPVEDDIDLSDVELDDLGKDE	R	-	95.00%	5.83	0.328	0	0	1	0	2	3,578.56	462	492	TRUE	
SNU216LR_PC4_01	Hsp90 co-chaperone Cdc37	IPI00013122	44,468.20	100.00%	1	1	1	0.01%	2.38%	TGDEKDVSV	K	-	95.00%	1.62	0.316	1	0	0	0	2	1,029.41	370	378	TRUE	
SNU216LR_PC4_01	Conserved hypothetical protein	IPI00477526	56,198.50	99.80%	2	2	2	0.01%	5.38%	HIEPELAGRDSPIR	R	A	95.00%	2.24	0.256	0	0	1	0	2	1,669.81	257	270	TRUE	
SNU216LR_PC4_01	Conserved hypothetical protein	IPI00477526	56,198.50	99.80%	2	2	2	0.01%	5.38%	HIEPELAGRDSPIRAEMPGNLQHYGR	R	F	95.00%	4.29	0.416	0	0	0	1	2	3,023.43	257	282	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.76	0.539	0	3	1	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.81	0.394	0	1	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	FKAEAPLPSPK	K	L	95.00%	2.18	0.232	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.21	0.23	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	GHYEVTGSDDETGK	K	L	95.00%	2.79	0.58	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.96	0.526	0	0	2	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	89.60%	4.55	0.087	0	0	0	1	2	2,730.26	2905	2930	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	GKGGVTGSPEASISGSK	K	G	95.00%	3.72	0.125	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.53	0.494	0	0	1	0	2	2,011.97	2795	2815	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	SKGHYEVTGSDDETGK	K	L	95.00%	2.34	0.267	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.74	0.278	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	SNSFSDER	R	E	95.00%	2.83	0.455	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	13	17	20	0.12%	3.38%	VKTPEMIIQKPK	K	I	95.00%	2.38	0.247	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.03	0.338	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	4.96	0.349	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.59	0.365	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC4_01	Stomatin-like protein 2	IPI00334190	38,534.50	100.00%	1	1	1	0.01%	4.49%	APVPGTPDSLSSGSSR	K	D	95.00%	2.39	0.486	0	1	0	0	2	1,594.71	322	337	TRUE	
SNU216LR_PC4_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	5	5	0.03%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.46	0.367	0	0	1	1	2	2,509.26	177	199	TRUE	
SNU216LR_PC4_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	5	5	0.03%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE\	K	G	82.90%	6.56	0.0003	0	0	1	1	2	3,462.56	246	276	TRUE	
SNU216LR_PC4_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	5	5	0.03%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	2.79	0.314	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216LR_PC4_01	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	2	2	3	0.02%	9.67%	ELTDEEAER	K	L	95.00%	1.85	0.305	0	1	0	0	2	1,171.45	106	114	TRUE	
SNU216LR_PC4_01	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	2	2	3	0.02%	9.67%	NGSLDSPGKQDTEEDEEEDEKDK	K	G	95.00%	5.79	0.421	0	0	2	0	2	2,674.05	134	156	TRUE	
SNU216LR_PC4_01	Eukaryotic translation initiation factor 3 subunit 3	IPI00647650	39,930.60	100.00%	1	1	1	0.01%	3.12%	EKDFSPEALKK	K	A	91.60%	3.18	0.0482	0	1	0	0	2	1,371.66	179	189	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	ATVTPSPVK	K	G	95.00%	2.2	0.278	1	2	0	0	2	979.4861	176	184	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	ATVTPSPVKGK	K	G	89.10%	1.75	0.262	1	0	0	0	2	1,164.60	176	186	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	4.39	0.504	0	1	3	1	2	2,421.94	71	90	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	DSGSDEDFLMEDDDDSDYGSSK	K	K	95.00%	4.24	0.148	0	1	0	0	2	2,508.84	129	150	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	EEDEEPESPPEK	K	K	95.00%	2.55	0.202	0	1	0	0	2	1,494.55	207	218	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	EEDEEPESPPEKK	K	T	95.00%	3.03	0.355	0	2	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	EKTPSPKEEDEEPESPPEK	K	K	95.00%	4.08	0.394	0	1	3	0	2	2,261.97	200	218	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	EMLMEDVGSEEEQEEEDEAPFQEK	R	D	95.00%	5.06	0.481	0	1	1	0	2	2,937.12	105	128	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	KVVDYSQFQESDDADEDYGR	K	D	95.00%	5.32	0.619	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	LKATVTPSPVK	R	G	95.00%	2.28	0.284	0	1	0	0	2	1,220.67	174	184	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	LKATVTPSPVKGK	R	G	95.00%	2.82	0.333	0	2	0	0	2	1,485.75	174	186	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	NSQEDSEDSEDKDVK	K	T	95.00%	4.07	0.366	0	4	0	0	2	1,804.68	53	67	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	3.52	0.31	0	2	0	0	2	2,156.79	50	67	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	TPSPKEEDEEPESPPEK	K	K	95.00%	3.62	0.355	0	1	0	0	2	2,004.83	202	218	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	TPSPKEEDEEPESPPEKK	K	T	95.00%	4.38	0.426	0	1	1	1	2	2,132.93	202	219	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.73	0.523	0	2	1	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	VVDYSQFQESDDADEDYGRDSGPPTK	K	K	95.00%	4.8	0.406	0	0	1	0	2	3,000.21	10	35	TRUE	
SNU216LR_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	18	27	39	0.23%	59.70%	VVDYSQFQESDDADEDYGRDSGPPTKK	K	I	95.00%	3.46	0.283	0	0	1	0	2	3,128.30	10	36	TRUE	
SNU216LR_PC4_01	Isoform 3 of Heterogeneous nuclear ribonucleopr	IPI00334713	30,588.20	100.00%	2	3	3	0.02%	8.07%	GNRGSGGGGGGGGGQGSTNYGK	R	S	95.00%	4.66	0.46	0	1	1	0	2	1,861.76	251	271	TRUE	
SNU216LR_PC4_01	Isoform 3 of Heterogeneous nuclear ribonucleopr	IPI00334713	30,588.20	100.00%	2	3	3	0.02%	8.07%	NRGNRGSGGGGGGGGGQGSTNYGK	R	S	95.00%	3.5	0.338	0	0	1	0	2	2,131.90	249	271	TRUE	
SNU216LR_PC4_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	3.83	0.517	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216LR_PC4_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	2.85	0.21	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216LR_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	8	0.05%	3.08%	EIQNGNLHESDSESVPR	K	D	95.00%	2.96	0.418	0	5	0	0	2	1,990.85	66	82	TRUE	
SNU216LR_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	8	0.05%	3.08%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.64	0.203	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216LR_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	8	0.05%	3.08%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.13	0.359	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216LR_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	8	0.05%	3.08%	QPTPPSEAAASK	K	K	95.00%	2.27	0.297	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216LR_PC4_01	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	2	2	8	0.05%	6.31%	EESEESDEDMGFGLFD	K	-	95.00%	1.99	0.338	0	1	0	0	2	1,915.65	302	317	TRUE	
SNU216LR_PC4_01	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	2	2	8	0.05%	6.31%	VEAKEESEESDEDMGFGLFD	K	-	95.00%	3.52	0.437	0	7	0	0	2	2,422.86	298	317	TRUE	
SNU216LR_PC4_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.39	0.513	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC4_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	4.67	0.357	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC4_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.46	0.426	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC4_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	6.29	0.533	0	0	1	0	2	2,990.55	202	227	TRUE	
SNU216LR_PC4_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	3	3	0.02%	4.88%	SEHKVWSPLVTEEGKR	R	H	95.00%	3.22	0.416	0	1	1	0	2	1,961.95	83	98	TRUE	
SNU216LR_PC4_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	3	3	0.02%	4.88%	VWSPLVTEEGKR	K	H	95.00%	2.88	0.2	0	0	1	0	2	1,480.72	87	98	TRUE	
SNU216LR_PC4_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	4	4	0.02%	14.20%	AGLGSPERPPK	R	T	88.70%	1.97	0.228	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC4_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	4	4	0.02%	14.20%	LGGLRPESPESLTSVSR	R	T	95.00%	2.71	0.201	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC4_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	4	4	0.02%	14.20%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.09	0.607	0	1	1	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC4_01	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	KLVEGEEGRMDSPSATVVSAVQSR	R	C	88.30%	4.55	0.079	0	0	1	0	2	2,612.24	385	408	TRUE	
SNU216LR_PC4_01	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	MDSPSATVVSAVQSR	R	C	95.00%	3.24	0.506	0	1	0	0	2	1,614.72	394	408	TRUE	
SNU216LR_PC4_01	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	YFSQESEVSE	K	-	95.00%	1.84	0.198	1	0	0	0	2	1,284.47	443	452	TRUE	
SNU216LR_PC4_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.50%	2	3	3	0.02%	3.36%	RPESPSEISPIKGSVR	K	T	90.70%	2.56	0.155	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216LR_PC4_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.50%	2	3	3	0.02%	3.36%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	4.88	0.249	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC4_01	Bcl-XL-binding protein v68	IPI00063242	28,006.30	100.00%	1	1	1	0.01%	4.71%	NVESGEEELASK	R	L	93.90%	1.86	0.264	0	1	0	0	2	1,371.57	77	88	TRUE	
SNU216LR_PC4_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	99.80%	2	2	2	0.01%	15.20%	KSPRPAGPQLFLPDPDPQR	R	G	95.00%	3.34	0.27	0	0	1	0	2	2,196.10	151	169	TRUE	
SNU216LR_PC4_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	99.80%	2	2	2	0.01%	15.20%	LAAAEETAVSPR	R	K	95.00%	2.41	0.405	0	1	0	0	2	1,294.60	139	150	TRUE	
SNU216LR_PC4_01	Synapse-associated protein 1	IPI00059242	39,933.40	99.20%	1	1	1	0.01%	1.99%	TPPVVIK	K	S	83.40%	1.49	0.13	1	0	0	0	2	833.4534	248	254	TRUE	
SNU216LR_PC4_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	99.80%	2	2	2	0.01%	3.07%	APQTSSSPPPVR	R	R	89.10%	2.04	0.224	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC4_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	99.80%	2	2	2	0.01%	3.07%	KETESEAEDNLDDLEK	K	H	95.00%	3.84	0.397	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC4_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	4	6	6	0.04%	22.70%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.86	0.617	0	1	1	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC4_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	4	6	6	0.04%	22.70%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	3.88	0.387	0	0	1	0	2	2,504.04	172	192	TRUE	
SNU216LR_PC4_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	4	6	6	0.04%	22.70%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	2.82	0.318	0	0	1	0	2	2,115.85	47	66	TRUE	
SNU216LR_PC4_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	4	6	6	0.04%	22.70%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	5.3	0.484	0	0	1	1	2	2,730.20	169	191	TRUE	
SNU216LR_PC4_01	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	2	2	0.01%	5.21%	GVEPSPSPIKPGDIK	K	R	95.00%	3.73	0.518	0	1	0	0	2	1,600.80	241	255	TRUE	
SNU216LR_PC4_01	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	2	2	0.01%	5.21%	GVEPSPSPIKPGDIKR	K	G	95.00%	3.13	0.429	0	1	0	0	2	1,756.90	241	256	TRUE	
SNU216LR_PC4_01	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	2	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.88	0.48	0	2	0	0	2	2,243.88	116	134	TRUE	
SNU216LR_PC4_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	4	4	0.02%	8.98%	RPDPDSDEDEDYER	R	E	95.00%	4.18	0.598	0	1	1	0	2	1,817.65	57	70	TRUE	
SNU216LR_PC4_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	4	4	0.02%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	3.62	0.388	0	1	0	0	2	2,102.79	57	72	TRUE	
SNU216LR_PC4_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	4	4	0.02%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	5.07	0.613	0	1	0	0	2	2,052.92	129	148	TRUE	
SNU216LR_PC4_01	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	2	2	0.01%	4.39%	KETPPPLVPPAAR	R	E	95.00%	2.3	0.285	0	1	0	0	2	1,452.76	3	15	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_01	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	2	2	0.01%	4.39%	MRKETPPPLVPPAAR	-	E	95.00%	3.66	0.325	0	0	1	0	2	1,739.90	1	15	TRUE	
SNU216LR_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	20	0.12%	21.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.5	0.269	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	20	0.12%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDK	K	E	95.00%	6.19	0.586	0	0	1	0	2	2,989.16	143	168	TRUE	
SNU216LR_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	20	0.12%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.14	0.604	0	0	7	7	2	3,657.52	143	174	TRUE	
SNU216LR_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	20	0.12%	21.40%	LNVLEKSSPGHR	R	A	95.00%	2.95	0.309	0	1	1	0	2	1,416.70	111	122	TRUE	
SNU216LR_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	20	0.12%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	E	95.00%	5.67	0.501	0	0	1	0	2	3,529.43	144	174	TRUE	
SNU216LR_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	20	0.12%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	L	95.00%	4.04	0.242	0	0	0	1	2	3,943.62	144	177	TRUE	
SNU216LR_PC4_01	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	99.90%	1	1	1	0.01%	4.30%	SPSVPKSPTPKSPPSR	K	K	80.10%	2.51	0.163	0	1	0	0	2	1,808.83	8	23	TRUE	
SNU216LR_PC4_01	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	4	6	0.04%	15.60%	LSMEDSKSPPPK	K	A	95.00%	3.05	0.531	0	3	0	0	2	1,395.62	127	138	TRUE	
SNU216LR_PC4_01	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	4	6	0.04%	15.60%	LSMEDSKSPPPKATEEK	K	K	95.00%	2.26	0.287	0	1	0	0	2	1,953.89	127	143	TRUE	
SNU216LR_PC4_01	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	4	6	0.04%	15.60%	TFQQPQEEEDDDYPGSYSPQDPSAGPLLTEE	R	A	86.80%	5.69	0.0383	0	1	1	2	3,919.73	149	182	TRUE	
SNU216LR_PC4_01	Cyclin-H	IPI00021305	37,644.90	99.80%	2	3	3	0.02%	5.26%	HEEEEWTDDDLVESL	K	-	95.00%	2.44	0.272	0	1	0	0	2	1,925.73	309	323	TRUE	
SNU216LR_PC4_01	Cyclin-H	IPI00021305	37,644.90	99.80%	2	3	3	0.02%	5.26%	SKHEEEEWTDDDLVESL	K	-	95.00%	3.26	0.241	0	1	1	0	2	2,140.86	307	323	TRUE	
SNU216LR_PC4_01	Isoform 1 of Negative elongation factor E	IPI00000858,IPI00154408	36,980.30	99.80%	2	2	2	0.01%	8.16%	SISADDDLQESSR	R	R	95.00%	3.05	0.488	0	1	0	0	2	1,502.60	113	125	TRUE	
SNU216LR_PC4_01	Isoform 1 of Negative elongation factor E	IPI00000858,IPI00154408	36,980.30	99.80%	2	2	2	0.01%	8.16%	SLSEQPVMDTATATEQAK	R	Q	95.00%	3.35	0.418	0	1	0	0	2	1,986.87	49	66	TRUE	
SNU216LR_PC4_01	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	2	2	0.01%	9.07%	ADAASSLTVDVTPPTAK	K	A	92.90%	3.47	0.065	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216LR_PC4_01	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	2	2	0.01%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	5.41	0.518	0	1	0	0	2	2,394.07	428	451	TRUE	
SNU216LR_PC4_01	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	1	1	1	0.01%	4.22%	KVSKQEEASGGPTAPK	R	A	95.00%	2.44	0.388	0	1	0	0	2	1,693.82	236	251	TRUE	
SNU216LR_PC4_01	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	3	3	0.02%	9.05%	KSPSGPVKSPPLSPVGTTPVK	R	L	95.00%	3.59	0.35	0	0	1	0	2	2,140.14	181	201	TRUE	
SNU216LR_PC4_01	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	3	3	0.02%	9.05%	SPSGPVKSPPLSPVGTTPVK	K	L	95.00%	3.8	0.189	0	1	1	0	2	2,092.01	182	201	TRUE	
SNU216LR_PC4_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	4	0.02%	9.98%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	5.2	0.555	0	1	1	0	2	2,586.99	308	328	TRUE	
SNU216LR_PC4_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	4	0.02%	9.98%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.97	0.473	0	0	0	1	2	3,394.35	302	328	TRUE	
SNU216LR_PC4_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	4	0.02%	9.98%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.09	0.298	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216LR_PC4_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.70%	2	2	2	0.01%	3.63%	DKEVSDDEAEEK	R	E	93.90%	2.65	0.157	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216LR_PC4_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.70%	2	2	2	0.01%	3.63%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	2.71	0.361	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC4_01	40S ribosomal protein S3a	IPI00419880	29,814.10	100.00%	1	1	1	0.01%	4.56%	ADGYEPPVQESV	R	-	95.00%	2.61	0.514	0	1	0	0	2	1,370.55	252	263	TRUE	
SNU216LR_PC4_01	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	4.49	0.41	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216LR_PC4_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	DYDEEEQGYDSEKEK	R	K	95.00%	2.92	0.259	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC4_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	SKTPPKSYSTAR	R	R	95.00%	2.42	0.371	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216LR_PC4_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.90%	2	3	3	0.02%	3.38%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	3.95	0.405	0	1	1	0	2	2,017.81	298	317	TRUE	
SNU216LR_PC4_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.90%	2	3	3	0.02%	3.38%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.11	0.498	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216LR_PC4_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	7	0.04%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	3.61	0.606	0	2	0	0	2	2,155.73	12	28	TRUE	
SNU216LR_PC4_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	7	0.04%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	4.1	0.489	0	1	1	0	2	2,231.87	11	28	TRUE	
SNU216LR_PC4_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	7	0.04%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	4.08	0.422	0	1	2	0	2	1,887.86	250	265	TRUE	
SNU216LR_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	8.63%	AMSEVTSLHEDDWR	R	S	95.00%	2.26	0.273	0	1	0	0	2	1,755.70	411	424	TRUE	
SNU216LR_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	8.63%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.39	0.607	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	8.63%	GPALTPIRDEEWGGHSPR	R	S	83.10%	2.65	0.162	0	0	1	0	2	2,054.94	430	447	TRUE	
SNU216LR_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	8.63%	GPALTPIRDEEWGGHSPRSPR	R	G	95.00%	2.43	0.28	0	0	1	0	2	2,395.13	430	450	TRUE	
SNU216LR_PC4_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	4	0.02%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.41	0.496	0	0	1	0	2	2,671.09	14	37	TRUE	
SNU216LR_PC4_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	4	0.02%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.69	0.622	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC4_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	4	0.02%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	5.98	0.585	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC4_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	3	5	5	0.03%	5.24%	KAEPSEVDMNSPK	K	S	95.00%	3.22	0.356	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC4_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	3	5	5	0.03%	5.24%	KKEEPSQNDISPK	K	T	95.00%	3.16	0.379	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC4_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	3	5	5	0.03%	5.24%	NEEPSEEEIDAPKPK	K	K	95.00%	3.83	0.392	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC5_01	Poly(rC)-binding protein 1	IPI00016610	37,498.20	100.00%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	4.07	0.309	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216LR_PC5_01	OTTHUMP00000030182	IPI00023023,IPI00514329,IP	19,911.70	99.80%	2	2	2	0.01%	20.30%	LSSTDDGYIDLQFK	R	K	95.00%	2.54	0.357	0	1	0	0	2	1,681.74	85	98	TRUE	
SNU216LR_PC5_01	OTTHUMP00000030182	IPI00023023,IPI00514329,IP	19,911.70	99.80%	2	2	2	0.01%	20.30%	LSSTDDGYIDLQFKK	R	T	95.00%	3.34	0.427	0	1	0	0	2	1,809.83	85	99	TRUE	
SNU216LR_PC5_01	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.11%	DPIYPPDPPIKLKIGLITK	R	N	83.60%	2.34	0.276	0	0	0	1	2	2,198.22	16842	16860	TRUE	
SNU216LR_PC5_01	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.11%	SSISLGWKPPAKDGGSPIK	K	G	95.00%	3.06	0.189	0	1	0	0	2	2,084.98	16554	16572	TRUE	
SNU216LR_PC5_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	3	3	3	0.02%	1.62%	NRSAEEGELAESK	R	S	95.00%	3.49	0.361	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC5_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	3	3	3	0.02%	1.62%	SAEEGELAESK	R	S	83.40%	1.76	0.299	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216LR_PC5_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	3	3	3	0.02%	1.62%	VPSSDEEVVEEPQSR	R	R	95.00%	3.35	0.36	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC5_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	14.60%	AGDLLEDSPKRPK	R	E	95.00%	3.02	0.221	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC5_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	2.5	0.323	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC5_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.55	0.5	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC5_01	hematological and neurological expressed 1 isofo	IPI00007764,IPI00384857	16,014.60	99.80%	1	2	2	0.01%	9.74%	RNSSEASSGDFLDLK	R	G	95.00%	3.97	0.388	0	1	1	0	2	1,705.74	85	99	TRUE	
SNU216LR_PC5_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	2	4	7	0.04%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.35	0.548	0	1	3	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC5_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	2	4	7	0.04%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.51	0.576	0	2	1	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC5_01	Histone H2B.a/g/h/k/l	IPI00020101,IPI00152906,IP	13,761.40	100.00%	1	1	1	0.01%	8.00%	KESYSVYVYK	R	V	86.10%	2.16	0.161	0	1	0	0	2	1,345.61	34	43	TRUE	
SNU216LR_PC5_01	Isoform 1 of PEST-containing nuclear protein	IPI00291608	18,925.40	100.00%	1	1	2	0.01%	13.50%	TLSVAAAFNEDEDSEPEEMPPEAK	K	M	95.00%	3.54	0.501	0	2	0	0	2	2,686.11	106	129	TRUE	
SNU216LR_PC5_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	5	6	0.03%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.85	0.515	0	1	1	0	2	2,671.09	14	37	TRUE	
SNU216LR_PC5_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	5	6	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	4.97	0.549	0	2	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC5_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	5	6	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	6.57	0.608	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC5_01	Phosphatidylethanolamine-binding protein 1	IPI00219446	20,925.70	100.00%	1	1	1	0.01%	8.06%	NRPTSISWDGLDSGK	K	L	95.00%	3.51	0.43	0	1	0	0	2	1,712.76	47	61	TRUE	
SNU216LR_PC5_01	Chromobox protein homolog 1	IPI00010320	21,418.10	100.00%	1	2	2	0.01%	8.11%	ADSDSEDKGEESKPK	K	K	95.00%	2.3	0.448	0	1	1	0	2	1,701.69	87	101	TRUE	
SNU216LR_PC5_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	99.60%	2	2	2	0.01%	2.95%	GAPSQDDESGGIEDSPDR	K	G	95.00%	2.6	0.279	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC5_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	99.60%	2	2	2	0.01%	2.95%	SLSPIIGK	R	D	79.80%	1.51	0.113	1	0	0	0	2	894.4698	782	789	TRUE	
SNU216LR_PC5_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	5	0.03%	28.20%	GLLSDSMTDVPVDTGVAAR	K	T	95.00%	3.83	0.346	0	2	0	0	2	1,983.91	16	34	TRUE	
SNU216LR_PC5_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	5	0.03%	28.20%	MDSAGQDINLNSPNKGLLSDSMTDVPVDT	-	T	95.00%	4.14	0.438	0	0	1	0	2	3,664.59	1	34	TRUE	
SNU216LR_PC5_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	5	0.03%	28.20%	NSATFKSFEDR	R	V	95.00%	2.86	0.365	0	1	0	0	2	1,381.58	183	193	TRUE	
SNU216LR_PC5_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	5	0.03%	28.20%	SWHDVQVSSAYVK	R	T	95.00%	2.69	0.316	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216LR_PC5_01	40S ribosomal protein S17	IPI00221093	15,419.30	100.00%	1	1	1	0.01%	16.40%	LLDFGSLSNLQVTQPTVGMNFK	K	T	95.00%	3.91	0.378	0	0	1	0	2	2,489.21	107	128	TRUE	
SNU216LR_PC5_01	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	4	0.02%	18.00%	ELDEEGSDPPLPGR	R	A	95.00%	3.23	0.479	0	2	0	0	2	1,590.67	169	182	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_01	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	4	0.02%	18.00%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.35	0.472	0	1	1	0	2	2,372.11	44	64	TRUE	
SNU216LR_PC5_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	1	1	2	0.01%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.17	0.39	0	0	2	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC5_01	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	100.00%	2	2	2	0.01%	2.79%	LLEDSEESSEETVSR	R	A	87.20%	2.18	0.214	0	1	0	0	2	1,869.70	103	117	TRUE	
SNU216LR_PC5_01	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	100.00%	2	2	2	0.01%	2.79%	QQTEKPESEDEWER	K	T	95.00%	2.38	0.323	0	1	0	0	2	1,870.75	157	170	TRUE	
SNU216LR_PC5_01	Histone H4	IPI00453473	11,236.50	100.00%	1	1	1	0.01%	9.80%	ISGLIYEETR	R	G	95.00%	2.14	0.436	0	1	0	0	2	1,260.59	46	55	TRUE	
SNU216LR_PC5_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	6.91%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.48	0.436	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC5_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	6.91%	SSPQLDPLR	R	K	95.00%	1.79	0.383	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC5_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	3.17%	NDSWGSFDLR	R	A	95.00%	1.93	0.308	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC5_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	3.17%	RTSPQVLGSILK	K	S	95.00%	3.3	0.308	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC5_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.23	0.24	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC5_01	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	100.00%	3	4	7	0.04%	41.10%	KLEKEEEEGISQESSEEEQ	K	-	95.00%	4.05	0.489	0	3	0	0	2	2,396.93	89	107	TRUE	
SNU216LR_PC5_01	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	100.00%	3	4	7	0.04%	41.10%	KQPPVSPGTALVGSQK	R	E	95.00%	2.73	0.446	0	1	1	0	2	1,673.86	31	46	TRUE	
SNU216LR_PC5_01	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	100.00%	3	4	7	0.04%	41.10%	KQPPVSPGTALVGSQKEPSEVPTPK	R	R	95.00%	3.05	0.471	0	0	2	0	2	2,638.35	31	55	TRUE	
SNU216LR_PC5_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	3	4	4	0.02%	8.37%	SQRYSGAYGASVSDEELK	K	R	95.00%	5.07	0.0249	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216LR_PC5_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	3	4	4	0.02%	8.37%	YSGAYGASVSDEELK	R	R	95.00%	3.14	0.494	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216LR_PC5_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	3	4	4	0.02%	8.37%	YSGAYGASVSDEELKR	R	R	95.00%	2.94	0.371	0	1	0	0	2	1,811.78	49	64	TRUE	
SNU216LR_PC5_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	4	4	0.02%	23.90%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.1	0.469	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC5_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	4	4	0.02%	23.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	8.45	0.578	0	0	1	1	2	4,277.68	238	275	TRUE	
SNU216LR_PC5_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	4	4	0.02%	23.90%	NDKSEEEQSSSSVK	K	K	95.00%	2.8	0.372	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216LR_PC5_01	23 kDa protein	IPI00002821,IPI00069693,IP	23,259.00	100.00%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	95.00%	2.1	0.312	0	1	0	0	2	978.5385	133	141	TRUE	
SNU216LR_PC5_01	Emerin	IPI00032003	28,994.90	99.80%	1	1	1	0.01%	8.66%	RLSPPSSSAASSYSFSDLNSTR	R	G	95.00%	4.16	0.374	0	0	1	0	2	2,397.07	47	68	TRUE	
SNU216LR_PC5_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	1	1	1	0.01%	2.23%	QSVDKVTSPTKV	K	-	95.00%	2.76	0.195	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC5_01	Centromere protein A	IPI00027152,IPI00386842	15,991.20	99.80%	2	2	2	0.01%	9.29%	SPSPTPTPGPSR	R	R	95.00%	2.12	0.375	0	1	0	0	2	1,260.56	17	28	TRUE	
SNU216LR_PC5_01	Centromere protein A	IPI00027152,IPI00386842	15,991.20	99.80%	2	2	2	0.01%	9.29%	SPSPTPTPGPSRR	R	G	95.00%	2.24	0.249	0	1	0	0	2	1,496.63	17	29	TRUE	
SNU216LR_PC5_01	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	2	2	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.38	0.515	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216LR_PC5_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	2	2	0.01%	2.15%	SHSPSASQSGSQLR	R	N	95.00%	2.49	0.373	0	1	1	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC5_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	2	2	0.01%	2.15%	TSTTGVATTQSPTPR	K	S	95.00%	3.23	0.448	0	1	0	0	2	1,584.73	1242	1256	TRUE	
SNU216LR_PC5_01	74 kDa protein	IPI00604517	74,428.20	99.70%	1	1	1	0.01%	1.31%	ALVATPGKK	K	G	93.70%	2.01	0.209	0	1	0	0	2	964.5229	94	102	TRUE	
SNU216LR_PC5_01	40S ribosomal protein S10	IPI00008438	18,898.30	100.00%	1	1	1	0.01%	8.48%	AEAGAGSATEFQFR	K	G	95.00%	2.35	0.276	0	1	0	0	2	1,521.64	140	153	TRUE	
SNU216LR_PC5_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	29	0.17%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.51	0.61	0	1	3	0	2	2,508.94	96	116	TRUE	
SNU216LR_PC5_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	29	0.17%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	6.34	0.222	0	0	2	1	2	4,104.59	78	115	TRUE	
SNU216LR_PC5_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	29	0.17%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	8.19	0.235	0	0	7	15	2	4,260.69	78	116	TRUE	
SNU216LR_PC5_01	Isoform 1 of Myelin basic protein	IPI00021907,IPI00216474	33,117.70	98.90%	1	1	1	0.01%	10.50%	TTSEDNEVFGEADANQNNGTSSQDTAVTI	R	T	95.00%	3.67	0.409	0	0	1	0	2	3,468.43	38	69	TRUE	
SNU216LR_PC5_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	3	3	3	0.02%	20.50%	AQLGGPEAAKSDETAAK	R	-	95.00%	3.06	0.485	0	1	0	0	2	1,723.79	189	205	TRUE	
SNU216LR_PC5_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	3	3	3	0.02%	20.50%	GPSWDPFRDWYPHSR	R	L	95.00%	2.93	0.422	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC5_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	3	3	3	0.02%	20.50%	QLSSGVSEIR	R	H	95.00%	2.14	0.326	1	0	0	0	2	1,155.54	80	89	TRUE	
SNU216LR_PC5_01	Centrin-2	IPI00215928	19,739.60	99.80%	1	1	1	0.01%	9.30%	MSPKPELTEEQKQEIR	R	E	95.00%	3.32	0.262	0	0	1	0	2	2,022.96	19	34	TRUE	
SNU216LR_PC5_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.90%	1	3	3	0.02%	5.82%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	4.59	0.451	0	1	1	1	2	2,333.13	446	466	TRUE	
SNU216LR_PC5_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	99.90%	2	2	2	0.01%	2.27%	KLGAGEGGEASVSPEK	K	T	95.00%	2.88	0.286	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC5_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	99.90%	2	2	2	0.01%	2.27%	TSQVGAASAPAKESPR	K	K	95.00%	2.37	0.42	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC5_01	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	3	4	0.02%	8.70%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	5.43	0.421	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216LR_PC5_01	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	3	4	0.02%	8.70%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	3.86	0.421	0	1	2	0	2	2,497.08	117	137	TRUE	
SNU216LR_PC5_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	1	1	1	0.01%	2.01%	AGGLDWPEATEVSPSR	R	T	95.00%	3.13	0.377	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC5_01	PDZ and LIM domain protein 5	IPI00007935	63,839.90	100.00%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	4.27	0.438	0	1	0	0	2	1,630.88	101	115	TRUE	
SNU216LR_PC5_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	1	1	1	0.01%	1.46%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.5	0.42	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC5_01	Hypothetical protein FLJ22484	IPI00024816	32,974.00	99.80%	2	2	2	0.01%	8.25%	GGSAAATSNPHHDNVR	R	Y	95.00%	2.6	0.354	0	0	1	0	2	1,670.70	205	220	TRUE	
SNU216LR_PC5_01	Hypothetical protein FLJ22484	IPI00024816	32,974.00	99.80%	2	2	2	0.01%	8.25%	SMSENAVR	R	Q	95.00%	1.96	0.334	0	1	0	0	2	973.3808	129	136	TRUE	
SNU216LR_PC5_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	5	0.03%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	2.42	0.264	0	2	0	0	2	1,519.67	123	135	TRUE	
SNU216LR_PC5_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	5	0.03%	16.10%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	6.75	0.557	0	0	1	2	2	3,657.52	143	174	TRUE	
SNU216LR_PC5_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	99.80%	1	2	2	0.01%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	4.62	0.467	0	0	1	1	2	2,051.83	68	85	TRUE	
SNU216LR_PC5_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.91	0.599	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC5_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	K	V	95.00%	6.09	0.394	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216LR_PC5_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.43	0.635	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC5_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.02%	4.15%	EKEISDDEAEEEK	R	G	95.00%	2.7	0.375	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC5_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.02%	4.15%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.2	0.494	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC5_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.02%	4.15%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.09	0.419	0	1	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC5_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	1	1	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	2.25	0.258	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC5_01	Casein kinase II subunit beta	IPI00010865,IPI00640088	24,942.90	99.80%	1	3	6	0.03%	9.77%	IHPMAYQLQLQAASNFKSPVK	K	T	95.00%	5.56	0.546	0	1	4	1	2	2,451.23	192	212	TRUE	
SNU216LR_PC5_01	DNA polymerase epsilon subunit 3	IPI00010141	16,859.90	100.00%	1	1	1	0.01%	13.60%	TDSEEQDKSRDEDNDEDEER	K	L	95.00%	4.23	0.451	0	0	1	0	2	2,520.91	114	133	TRUE	
SNU216LR_PC5_01	FLJ20625 protein	IPI00016670	17,725.30	100.00%	3	3	3	0.02%	26.70%	KLLLDPSSPPTK	R	A	95.00%	3.38	0.323	0	1	0	0	2	1,375.72	20	31	TRUE	
SNU216LR_PC5_01	FLJ20625 protein	IPI00016670	17,725.30	100.00%	3	3	3	0.02%	26.70%	LAVLSSSLTHWK	R	K	95.00%	2.66	0.305	0	1	0	0	2	1,421.72	92	103	TRUE	
SNU216LR_PC5_01	FLJ20625 protein	IPI00016670	17,725.30	100.00%	3	3	3	0.02%	26.70%	MGCCYSSENEDSDQDREERK	-	L	95.00%	1.58	0.356	0	0	0	1	2	2,750.84	1	20	TRUE	
SNU216LR_PC5_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	2	2	2	0.01%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.14	0.459	0	0	1	0	2	2,727.34	846	871	TRUE	
SNU216LR_PC5_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	2	2	2	0.01%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	6.03	0.372	0	0	1	0	2	3,113.52	846	874	TRUE	
SNU216LR_PC5_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	16	0.09%	60.00%	KEESEESDDDMGFGLFD	K	-	95.00%	4.06	0.532	0	13	0	0	2	2,029.73	99	115	TRUE	
SNU216LR_PC5_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	16	0.09%	60.00%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	3.49	0.311	0	0	1	0	2	2,854.40	62	94	TRUE	
SNU216LR_PC5_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	16	0.09%	60.00%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.13	0.357	0	2	0	0	2	1,948.94	3	21	TRUE	
SNU216LR_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	28.80%	DDSHSAEDSEDEKEDHK	K	N	95.00%	1.98	0.352	0	0	1	0	2	2,132.70	71	87	TRUE	
SNU216LR_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	28.80%	EEDEEEPESPPEKK	K	T	95.00%	2.86	0.368	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	28.80%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	3.95	0.417	0	0	1	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	28.80%	NSQEDSEDSEDKDVK	K	T	95.00%	3.54	0.409	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216LR_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	28.80%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.68	0.217	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216LR_PC5_01	Similar to Protein phosphatase 1 regulatory subu	IPI00398922	20,965.20	100.00%	1	1	1	0.01%	12.60%	VYFQSPPGAAGEGPGGADDEGPVRR	R	Q	86.90%	2.8	0.178	0	0	1	0	2	2,566.14	80	104	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	ASGQAFELILSPR	R	S	95.00%	2.59	0.249	0	2	1	0	2	1,468.72	14	26	TRUE	
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	ELEKRASGQAFELILSPR	K	S	95.00%	3.19	0.198	0	0	1	0	2	2,124.09	9	26	TRUE	
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	ESVPEFPLSPPK	K	K	95.00%	2.4	0.418	0	2	0	0	2	1,406.66	29	40	TRUE	
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	ESVPEFPLSPPKK	K	K	95.00%	2.53	0.228	0	1	0	0	2	1,534.76	29	41	TRUE	
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	ESVPEFPLSPPKKK	K	D	95.00%	3.15	0.345	0	1	2	0	2	1,662.85	29	42	TRUE	
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	RASGQAFELILSPR	K	S	95.00%	3.81	0.415	0	0	3	0	2	1,624.82	13	26	TRUE	
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	SKESVPEFPLSPPK	R	K	95.00%	3.32	0.478	0	2	2	0	2	1,621.79	27	40	TRUE	
SNU216LR_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	8	11	18	0.10%	23.00%	SKESVPEFPLSPPKK	R	K	95.00%	2.53	0.313	0	0	1	0	2	1,749.88	27	41	TRUE	
SNU216LR_PC5_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	2.79	0.527	0	1	0	0	2	2,304.83	179	197	TRUE	
SNU216LR_PC5_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	5.35	0.475	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216LR_PC5_01	RAB31, member RAS oncogene family variant	IPI00014376	21,700.30	100.00%	1	1	1	0.01%	10.80%	FVQDHFDHNISPTIGASFMTK	R	T	95.00%	4.68	0.418	0	0	1	0	2	2,472.11	26	46	TRUE	
SNU216LR_PC5_01	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	95.00%	3.27	0.375	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216LR_PC5_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.71	0.356	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC5_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.08	0.276	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216LR_PC5_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.08	0.252	0	0	1	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC5_01	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	5	5	0.03%	8.20%	RKSLSDSESDDSK	K	S	95.00%	2.87	0.365	0	1	1	0	2	1,533.64	91	103	TRUE	
SNU216LR_PC5_01	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	5	5	0.03%	8.20%	SLSDSESDDSK	K	S	95.00%	2.54	0.484	1	1	0	0	2	1,249.45	93	103	TRUE	
SNU216LR_PC5_01	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	5	5	0.03%	8.20%	SLSDSESDDSKSK	K	K	95.00%	2.09	0.332	0	1	0	0	2	1,464.57	93	105	TRUE	
SNU216LR_PC5_01	Isoform 1 of Receptor expression-enhancing prot	IPI00164434	29,264.70	99.80%	2	2	3	0.02%	20.00%	DGDEKTDEEAEGPYSDNEMLTHK	K	G	95.00%	4.25	0.454	0	0	2	0	2	2,690.05	196	218	TRUE	
SNU216LR_PC5_01	Isoform 1 of Receptor expression-enhancing prot	IPI00164434	29,264.70	99.80%	2	2	3	0.02%	20.00%	SFSMHDLTTIQGDEPVGQRPYQPLPEAK	R	K	95.00%	4.77	0.361	0	0	1	0	2	3,221.50	150	177	TRUE	
SNU216LR_PC5_01	Methylated-DNA--protein-cysteine methyltransfer	IPI00028618	21,645.90	99.50%	2	2	2	0.01%	6.76%	GAGATSGSPPAGR	K	-	95.00%	2.48	0.349	0	1	0	0	2	1,165.50	194	206	TRUE	
SNU216LR_PC5_01	Methylated-DNA--protein-cysteine methyltransfer	IPI00028618	21,645.90	99.50%	2	2	2	0.01%	6.76%	GAGATSGSPPAGRN	K	-	90.90%	2.04	0.227	0	1	0	0	2	1,279.54	194	207	TRUE	
SNU216LR_PC5_01	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	2	3	5	0.03%	11.90%	SLSSSLDDTEVKK	K	V	95.00%	2.45	0.378	0	3	1	0	2	1,488.68	156	168	TRUE	
SNU216LR_PC5_01	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	2	3	5	0.03%	11.90%	TVQSNSPISALAPTGK	K	E	95.00%	3.04	0.456	0	1	0	0	2	1,650.81	201	216	TRUE	
SNU216LR_PC5_01	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	100.00%	1	1	2	0.01%	1.35%	QPTPPFFGR	R	D	95.00%	1.9	0.356	0	2	0	0	2	1,126.51	204	212	TRUE	
SNU216LR_PC5_01	KIAA1143	IPI00410618	17,483.50	100.00%	2	3	3	0.02%	17.50%	IQPQPPDEDGDHSDKEDEQPQVVVLK	R	K	95.00%	2.64	0.232	0	0	1	0	2	3,022.37	38	63	TRUE	
SNU216LR_PC5_01	KIAA1143	IPI00410618	17,483.50	100.00%	2	3	3	0.02%	17.50%	RIQPQPPDEDGDHSDKEDEQPQVVVLK	K	K	95.00%	4.96	0.421	0	0	1	1	2	3,178.47	37	63	TRUE	
SNU216LR_PC5_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	1	1	1	0.01%	2.26%	GGSISVQVNSIKFDSE	R	-	95.00%	3.25	0.316	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216LR_PC5_01	Isoform B of Ras-related C3 botulinum toxin subs	IPI00219675	23,468.00	100.00%	1	1	1	0.01%	7.58%	LRPLSYPQTVGETYGK	R	D	95.00%	3.43	0.309	0	1	0	0	2	1,888.92	67	82	TRUE	
SNU216LR_PC5_01	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	2	3	4	0.02%	8.87%	KVMDSDEDDDY	R	-	95.00%	2.79	0.414	1	1	0	0	2	1,411.46	114	124	TRUE	
SNU216LR_PC5_01	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	2	3	4	0.02%	8.87%	VMDSDEDDDY	K	-	95.00%	1.43	0.4	0	2	0	0	2	1,299.36	115	124	TRUE	
SNU216LR_PC5_01	Proteasome subunit alpha type 5	IPI00291922	26,411.30	100.00%	1	1	1	0.01%	5.39%	ITSPLMEPSSIEK	R	I	95.00%	2.28	0.301	0	1	0	0	2	1,511.71	54	66	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	18	0.10%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	3.55	0.418	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	18	0.10%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.68	0.618	0	2	2	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	18	0.10%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	4.23	0.58	0	1	1	1	2	2,504.04	172	192	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	18	0.10%	24.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	4.91	0.628	0	2	1	0	2	2,115.85	47	66	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	18	0.10%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	4.85	0.521	0	0	2	0	2	2,484.10	44	66	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	18	0.10%	24.20%	LLKEGEEPTVYSDEEEPK	K	D	95.00%	3.12	0.36	0	1	1	0	2	2,171.96	169	186	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	18	0.10%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.63	0.571	0	1	1	1	2	2,730.20	169	191	TRUE	
SNU216LR_PC5_01	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	2	2	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.25	0.593	0	1	1	0	2	2,323.85	116	134	TRUE	
SNU216LR_PC5_01	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	2	2	0.01%	6.52%	KLEDVKNSPTFK	K	S	95.00%	3.3	0.22	0	0	1	0	2	1,485.74	124	135	TRUE	
SNU216LR_PC5_01	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	2	2	0.01%	6.52%	LEDVKNSPTFK	K	S	95.00%	2.74	0.375	0	1	0	0	2	1,357.64	125	135	TRUE	
SNU216LR_PC5_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	6	0.03%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	2.97	0.333	0	1	1	0	2	2,319.81	56	73	TRUE	
SNU216LR_PC5_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	6	0.03%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.69	0.64	0	2	0	0	2	2,111.75	57	73	TRUE	
SNU216LR_PC5_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	6	0.03%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	4.17	0.495	0	1	1	0	2	2,347.81	57	74	TRUE	
SNU216LR_PC5_01	Isoform 1 of Inhibitor of growth protein 5	IPI00103709,IPI00513864,IP	16,272.20	98.90%	1	1	1	0.01%	5.81%	DKMEGSDFESSGGR	K	G	95.00%	2.38	0.24	0	1	0	0	2	1,581.59	109	122	TRUE	
SNU216LR_PC5_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.70%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.35	0.47	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC5_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.70%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDMI	R	S	93.20%	3.67	0.142	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216LR_PC5_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	1	1	1	0.01%	6.19%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.37	0.436	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC5_01	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	100.00%	3	3	3	0.02%	15.00%	LSSDSFAR	R	L	95.00%	1.86	0.307	0	1	0	0	2	962.3979	241	248	TRUE	
SNU216LR_PC5_01	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	100.00%	3	3	3	0.02%	15.00%	RGEAAGSPVPTPPRSPAQEEPTDFLSR	K	L	95.00%	2.91	0.234	0	0	1	0	2	3,089.32	107	133	TRUE	
SNU216LR_PC5_01	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	100.00%	3	3	3	0.02%	15.00%	SPPSPELQGPPSTEK	K	E	95.00%	2.7	0.32	0	1	0	0	2	1,630.74	192	206	TRUE	
SNU216LR_PC5_01	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSEPSRPSPQI	R	P	95.00%	6.48	0.391	0	0	1	0	2	3,119.47	117	148	TRUE	
SNU216LR_PC5_01	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSEPSRPSPQI	R	T	95.00%	5.71	0.433	0	0	1	1	2	3,372.62	117	150	TRUE	
SNU216LR_PC5_01	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	1	2	3	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.59	0.583	0	0	2	1	2	3,394.35	86	113	TRUE	
SNU216LR_PC5_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	4	4	0.02%	8.17%	ETPHSPGVEDAPIAK	R	V	95.00%	2.8	0.3	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC5_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	4	4	0.02%	8.17%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.51	0.344	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC5_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	4	4	0.02%	8.17%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.75	0.454	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216LR_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	3	4	4	0.02%	24.00%	KVASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	5.17	0.41	0	0	1	1	2	2,986.57	103	133	TRUE	
SNU216LR_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	3	4	4	0.02%	24.00%	VASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	4.18	0.438	0	0	1	0	2	2,858.47	104	133	TRUE	
SNU216LR_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	3	4	4	0.02%	24.00%	VYEDSGIPLPAESPK	K	K	95.00%	3.19	0.413	0	1	0	0	2	1,681.77	84	98	TRUE	
SNU216LR_PC5_01	28S ribosomal protein S16, mitochondrial precurs	IPI00032872	15,345.40	99.80%	1	1	1	0.01%	9.49%	TDAEATDTEATET	K	-	95.00%	1.98	0.344	0	1	0	0	2	1,434.52	125	137	TRUE	
SNU216LR_PC5_01	CDNA FLJ41744 fis, clone HSYRA2005496, highly	IPI00446377	42,548.90	100.00%	1	1	1	0.01%	4.35%	PKTGSQDQEVHRTVFMR	R	L	79.90%	2.69	0.189	0	0	1	0	2	2,175.94	288	304	TRUE	
SNU216LR_PC5_01	SH3 domain binding glutamic acid-rich protein lik	IPI00514669,IPI00746352	10,437.80	99.80%	1	1	1	0.01%	17.00%	MSGLRVYSTVTGSR	-	E	91.10%	2.57	0.19	0	0	0	1	2	1,680.78	1	15	TRUE	
SNU216LR_PC5_01	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	1	2	2	0.01%	6.54%	NLGSINTELQDVQR	R	I	95.00%	2.89	0.423	0	1	1	0	2	1,666.78	133	146	TRUE	
SNU216LR_PC5_01	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	3	0.02%	24.40%	DHANYEEDENGDITPIK	R	A	95.00%	2.05	0.401	0	1	0	0	2	2,039.82	134	150	TRUE	
SNU216LR_PC5_01	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	3	0.02%	24.40%	HKAEEVEDETVELDVSDEEMAR	K	R	95.00%	5.86	0.381	0	0	2	0	2	2,640.10	95	116	TRUE	
SNU216LR_PC5_01	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	2	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.17	0.228	0	0	2	0	2	2,565.01	131	153	TRUE	
SNU216LR_PC5_01	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	2	3	4	0.02%	9.33%	NSLKELWLVIHGR	R	V	95.00%	3.09	0.345	0	0	1	0	2	1,644.86	36	48	TRUE	
SNU216LR_PC5_01	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	2	3	4	0.02%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	4.08	0.457	0	0	1	2	2	1,800.96	35	48	TRUE	
SNU216LR_PC5_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.94	0.322	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC5_01	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	100.00%	1	1	4	0.02%	5.67%	ESLKEEDESDDDNM	K	-	95.00%	3.82	0.448	0	4	0	0	2	1,735.59	242	255	TRUE	
SNU216LR_PC5_01	Bcl2-antagonist of cell death	IPI00024291	18,391.90	99.80%	2	2	2	0.01%	20.20%	HSSYPAGTEDDEGMGEEPSPFR	R	G	95.00%	3.77	0.235	0	0	1	0	2	2,474.94	73	94	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_01	Bcl2-antagonist of cell death	IPI00024291	18,391.90	99.80%	2	2	2	0.01%	20.20%	RMSDEFVDSFKK	R	G	95.00%	3.08	0.416	0	0	1	0	2	1,568.68	116	127	TRUE	
SNU216LR_PC5_01	Isoform 1 of Presenilin-1	IPI00028077,IPI00219934	52,668.80	98.70%	1	2	3	0.02%	4.07%	AAVQELSSSILAGEDPEER	R	G	95.00%	3.81	0.415	0	2	1	0	2	2,080.94	359	377	TRUE	
SNU216LR_PC5_01	Ras-related protein Rab-8A	IPI00028481	23,669.70	100.00%	2	2	4	0.02%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	3.31	0.458	0	2	0	0	2	1,622.75	176	190	TRUE	
SNU216LR_PC5_01	Ras-related protein Rab-8A	IPI00028481	23,669.70	100.00%	2	2	4	0.02%	7.25%	LEGNSPQGSNQGVK	K	I	95.00%	2.77	0.397	0	2	0	0	2	1,494.66	177	190	TRUE	
SNU216LR_PC5_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	99.80%	1	1	1	0.01%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	4.26	0.136	0	0	1	0	2	3,687.41	259	290	TRUE	
SNU216LR_PC5_01	Isoform 1 of RNA-binding protein 8A	IPI00001757	19,889.40	100.00%	2	3	4	0.02%	10.90%	EDYDSVEQDGDEPGPQR	R	S	95.00%	2.49	0.375	0	1	0	0	2	2,015.75	52	68	TRUE	
SNU216LR_PC5_01	Isoform 1 of RNA-binding protein 8A	IPI00001757	19,889.40	100.00%	2	3	4	0.02%	10.90%	MREDYDSVEQDGDEPGPQR	R	S	95.00%	4.13	0.561	0	1	2	0	2	2,302.89	50	68	TRUE	
SNU216LR_PC5_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.28	0.294	0	1	0	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC5_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	3.92	0.341	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC5_01	Isoform 1 of Cleavage and polyadenylation specif	IPI00550821,IPI00719106	51,096.50	100.00%	1	1	1	0.01%	2.34%	SSSTEPPPPVR	R	Q	95.00%	2.1	0.367	0	1	0	0	2	1,233.55	46	56	TRUE	
SNU216LR_PC5_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	3	3	3	0.02%	15.70%	KSPRPAGPQLFLPDPDPQR	R	G	95.00%	4.18	0.435	0	0	1	0	2	2,196.10	151	169	TRUE	
SNU216LR_PC5_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	3	3	3	0.02%	15.70%	LAAAEETAVSPR	R	K	95.00%	2.38	0.194	0	1	0	0	2	1,294.60	139	150	TRUE	
SNU216LR_PC5_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	3	3	3	0.02%	15.70%	RLAAAEETAVSPR	R	K	95.00%	2.67	0.315	0	1	0	0	2	1,450.71	138	150	TRUE	
SNU216LR_PC5_01	Isoform TAFII20 of Transcription initiation factor T	IPI00002806,IPI00759817	14,825.00	99.80%	2	3	3	0.02%	13.00%	IPGTPGAGGRLSPENNQVLTK	K	K	95.00%	3.08	0.409	0	1	1	0	2	2,186.10	10	30	TRUE	
SNU216LR_PC5_01	Isoform TAFII20 of Transcription initiation factor T	IPI00002806,IPI00759817	14,825.00	99.80%	2	3	3	0.02%	13.00%	LSPENNQVLTK	R	K	95.00%	2.15	0.304	0	1	0	0	2	1,322.64	20	30	TRUE	
SNU216LR_PC5_01	Ras-related protein R-Ras	IPI00020418	23,480.50	100.00%	1	2	4	0.02%	7.34%	KYQEQELPPSPPSAPR	R	K	95.00%	3.16	0.258	0	2	2	0	2	1,903.90	192	207	TRUE	
SNU216LR_PC5_01	60S ribosomal protein L12	IPI00024933,IPI00479158	17,819.10	99.80%	1	1	1	0.01%	5.45%	IGPLGLSPK	K	K	92.50%	1.94	0.216	0	1	0	0	2	961.5121	32	40	TRUE	
SNU216LR_PC5_01	40S ribosomal protein S8	IPI00216587,IPI00645201	21,880.70	100.00%	1	1	1	0.01%	6.76%	GAKLTPEEEEILNK	K	K	95.00%	2.97	0.279	0	1	0	0	2	1,650.80	106	119	TRUE	
SNU216LR_PC5_01	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	3	3	0.02%	31.60%	PGPTPSGTNVGSSGRSPSK	-	A	95.00%	3.32	0.384	0	1	1	0	2	1,849.84	1	19	TRUE	
SNU216LR_PC5_01	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	3	3	0.02%	31.60%	TTSAGTGGMWR	R	F	95.00%	2.1	0.326	0	1	0	0	2	1,204.48	46	56	TRUE	
SNU216LR_PC5_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	4	0.02%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.92	0.316	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC5_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	4	0.02%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.74	0.48	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC5_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	4	0.02%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.66	0.0602	0	1	0	0	2	1,894.80	362	377	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.61	0.385	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.64	0.458	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	GGVTGSPEASISGSK	K	G	95.00%	2.32	0.351	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	GHYEVTGSDDETGK	K	L	95.00%	2.69	0.444	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.35	0.519	0	0	1	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	GKGGVTGSPEASISGSK	K	G	95.00%	3.64	0.149	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	SKGHYEVTGSDDETGK	K	L	95.00%	2.69	0.279	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.43%	SNSFSDER	R	E	95.00%	2.18	0.502	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC5_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	4	6	0.03%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	3.43	0.631	0	2	0	0	2	2,155.73	12	28	TRUE	
SNU216LR_PC5_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	4	6	0.03%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	3.93	0.561	0	1	2	0	2	2,231.87	11	28	TRUE	
SNU216LR_PC5_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	4	6	0.03%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	2.63	0.33	0	0	1	0	2	1,887.86	250	265	TRUE	
SNU216LR_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	5	8	20	0.12%	41.90%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	K	F	95.00%	5.91	0.432	0	0	1	1	2	3,671.51	94	122	TRUE	
SNU216LR_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	5	8	20	0.12%	41.90%	DWEDDSDEDMSNFDR	K	F	95.00%	2.99	0.486	0	10	2	0	2	1,955.63	108	122	TRUE	
SNU216LR_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	5	8	20	0.12%	41.90%	FSEMMNNMGGDEDVDLPEVDGADDDSQ	R	M	95.00%	4.71	0.481	0	0	1	0	2	3,701.33	123	155	TRUE	
SNU216LR_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	5	8	20	0.12%	41.90%	FSEMMNNMGGDEDVDLPEVDGADDDSQ	R	-	95.00%	5.8	0.39	0	0	1	1	2	4,286.57	123	160	TRUE	
SNU216LR_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	5	8	20	0.12%	41.90%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	5.07	0.344	0	0	3	0	2	3,472.37	96	122	TRUE	
SNU216LR_PC5_01	CDNA FLJ36810 fis, clone ASTRO2001249	IPI00298618	19,052.60	99.80%	1	1	1	0.01%	9.70%	RQYHESEEESEEEEAA	R	-	95.00%	2.27	0.431	0	1	0	0	2	2,031.75	150	165	TRUE	
SNU216LR_PC5_01	Isoform 1 of Sorting nexin-12	IPI00438170,IPI00438171,IP	19,819.10	100.00%	1	1	1	0.01%	8.14%	RYSDFEWLKNELER	R	D	95.00%	3.14	0.199	0	0	1	0	2	1,964.89	71	84	TRUE	
SNU216LR_PC5_01	Ubiquitin-conjugating enzyme E2 I	IPI00032957,IPI00450472	20,458.30	100.00%	1	1	1	0.01%	8.23%	MLFKDDYPSSPPK	R	C	95.00%	2.79	0.366	0	1	0	0	2	1,604.71	62	74	TRUE	
SNU216LR_PC5_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	3	3	0.02%	8.54%	SAMPFTASPASSTTAR	R	V	95.00%	2.42	0.256	0	1	0	0	2	1,662.72	122	137	TRUE	
SNU216LR_PC5_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	3	3	0.02%	8.54%	VWSPLVTEEGKR	K	H	95.00%	3.02	0.317	0	1	1	0	2	1,480.72	87	98	TRUE	
SNU216LR_PC5_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.33	0.481	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216LR_PC5_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	3.08	0.266	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216LR_PC5_01	golgi SNAP receptor complex member 1 isoform	IPI00477701	28,294.70	100.00%	1	2	2	0.01%	6.85%	RDSSDTTPLLNGSSQDR	R	M	95.00%	3.22	0.278	0	1	1	0	2	1,928.83	47	63	TRUE	
SNU216LR_PC5_01	60S ribosomal protein L31	IPI00026302	14,463.20	100.00%	1	1	1	0.01%	18.40%	NEDEDSPNKLYTLVTYVPVTTFK	R	N	95.00%	4.48	0.314	0	0	1	0	2	2,753.30	93	115	TRUE	
SNU216LR_PC5_01	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	95.00%	1.68	0.266	1	0	0	0	2	1,044.38	133	139	TRUE	
SNU216LR_PC5_01	NME2 protein	IPI00604590	32,642.20	100.00%	1	1	1	0.01%	5.82%	VMLGETNPADSKPGTIR	R	G	95.00%	2.32	0.366	0	1	0	0	2	1,865.88	114	130	TRUE	
SNU216LR_PC5_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.80%	2	2	2	0.01%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	3.83	0.301	0	0	1	0	2	2,577.16	2398	2420	TRUE	
SNU216LR_PC5_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.80%	2	2	2	0.01%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	3.4	0.375	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216LR_PC5_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	1	1	1	0.01%	10.20%	SLSTSGESLYHVLGLDK	R	N	91.60%	3.59	0.0469	0	1	0	0	2	1,885.89	8	24	TRUE	
SNU216LR_PC5_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	3	3	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	2.79	0.186	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC5_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	3	3	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.78	0.273	0	1	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC5_01	Integrin alpha-V precursor	IPI00027505	116,055.10	100.00%	2	2	2	0.01%	2.39%	EQLQPHENGEGNSET	R	-	95.00%	3.31	0.476	0	1	0	0	2	1,748.68	1034	1048	TRUE	
SNU216LR_PC5_01	Integrin alpha-V precursor	IPI00027505	116,055.10	100.00%	2	2	2	0.01%	2.39%	VRPPQEEQEREQLQPHENGEGNSET	R	-	95.00%	2.95	0.185	0	0	1	0	2	2,997.30	1024	1048	TRUE	
SNU216LR_PC5_01	Isoform 7 of Titin	REVERSE_IPI00179357-R,RE	3,734,470.50	100.00%	1	1	1	0.01%	0.06%	TFSPPIILDLVNIRAKCSSR	K	G	91.60%	2.56	0.181	0	0	0	1	2	2,527.16	28746	28765	TRUE	
SNU216LR_PC5_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	1	1	1	0.01%	6.30%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.53	0.256	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216LR_PC5_01	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	3.63%	QVLQSTQSPR	R	T	95.00%	2.36	0.234	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC5_01	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	3.63%	VKPPPSPTTEGPSLQPDLAPEEAAGTQRPK	K	N	95.00%	3.56	0.248	0	0	0	1	2	3,175.57	1004	1033	TRUE	
SNU216LR_PC5_01	40S ribosomal protein S7	IPI00013415	22,127.50	100.00%	1	1	1	0.01%	4.64%	VETFSGVYK	K	K	95.00%	2.01	0.245	1	0	0	0	2	1,109.49	170	178	TRUE	
SNU216LR_PC5_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	GSDPASGEVEASQLR	R	R	95.00%	2.92	0.318	0	1	0	0	2	1,582.67	106	120	TRUE	
SNU216LR_PC5_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	4.19	0.502	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216LR_PC5_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.62	0.428	0	0	1	0	2	1,894.88	104	120	TRUE	
SNU216LR_PC5_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	IGEGTYGVVYK	K	G	88.60%	2.07	0.193	0	2	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216LR_PC5_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.51	0.389	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216LR_PC5_01	Density-regulated protein	IPI00306280	22,285.70	100.00%	1	2	2	0.01%	13.10%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	4.44	0.587	0	1	1	0	2	2,797.24	69	94	TRUE	
SNU216LR_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.36%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.5	0.171	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.36%	GSPTSAYPER	R	K	95.00%	2.25	0.237	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.36%	HGSDPAFAPGPR	R	G	95.00%	2.36	0.349	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.36%	KEEASSPGAGEGPAEEGTR	K	D	95.00%	2.03	0.271	0	1	0	0	2	1,938.81	1142	1160	TRUE	
SNU216LR_PC5_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.76	0.446	0	1	0	0	2	1,550.74	215	227	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	5.41	0.556	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC5_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	3	0.02%	14.10%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.17	0.39	0	0	2	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC5_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	3	0.02%	14.10%	HASPILPITEFSDIPR	K	R	95.00%	3.46	0.262	0	1	1	0	2	1,872.93	304	319	TRUE	
SNU216LR_PC5_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	3	0.02%	14.10%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	3.32	0.197	0	0	1	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC5_01	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	93.10%	5.48	0.0515	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216LR_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.90%	2	2	2	0.01%	2.61%	GSYGSDAEEEEYR	R	Q	95.00%	2.18	0.314	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.90%	2	2	2	0.01%	2.61%	KVQVAALQASPPLDQDDR	R	A	95.00%	2.56	0.29	0	0	1	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC5_01	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	100.00%	1	1	1	0.01%	2.81%	TNTMNGSKSPVISRPK	R	S	95.00%	2.39	0.364	0	1	0	0	2	1,796.87	747	762	TRUE	
SNU216LR_PC5_01	Ubiquitin-conjugating enzyme E2 E3	IPI00056504	22,913.50	99.60%	1	1	1	0.01%	15.90%	QRSDDESPSTSSGSSDADQRDPAAPEPEEQ	R	K	91.90%	2.94	0.168	0	0	1	0	2	3,669.47	6	38	TRUE	
SNU216LR_PC5_01	Eukaryotic translation initiation factor 6	IPI00010105	26,598.20	100.00%	1	1	1	0.01%	8.98%	LNEAQPSTIATSMRDSLIDSLT	K	-	95.00%	4.64	0.038	0	1	0	0	2	2,443.14	224	245	TRUE	
SNU216LR_PC5_01	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	1	2	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE(	K	T	95.00%	7.52	0.0802	0	0	2	0	2	4,013.68	6	39	TRUE	
SNU216LR_PC5_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	2	0.01%	1.76%	RASMQPIQIAEGTGITTR	R	Q	94.90%	3.1	0.212	0	0	1	0	2	2,009.98	1967	1984	TRUE	
SNU216LR_PC5_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	2	0.01%	1.76%	TQPDGTSVPGEPASPISQR	R	L	95.00%	3.4	0.409	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC5_01	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	99.80%	2	2	2	0.01%	9.63%	QQDPSPGSNLGGGDDLK	R	L	95.00%	3.59	0.436	0	1	0	0	2	1,764.74	169	185	TRUE	
SNU216LR_PC5_01	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	99.80%	2	2	2	0.01%	9.63%	RQQDPSPGSNLGGGDDLK	R	L	95.00%	3.16	0.271	0	1	0	0	2	1,920.85	168	185	TRUE	
SNU216LR_PC5_01	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	3	3	0.02%	9.05%	KSPSGPVKSPPLSPVGTTPVK	K	L	95.00%	3.97	0.44	0	0	1	0	2	2,140.14	181	201	TRUE	
SNU216LR_PC5_01	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	3	3	0.02%	9.05%	SPSGPVKSPPLSPVGTTPVK	K	L	95.00%	3.45	0.341	0	1	1	0	2	2,012.05	182	201	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	5	5	0.03%	17.00%	GLGAGAGAGEEESPATSLPR	R	M	95.00%	4.29	0.477	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	5	5	0.03%	17.00%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	4.02	0.54	0	1	1	0	2	2,159.93	200	217	TRUE	
SNU216LR_PC5_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	5	5	0.03%	17.00%	RGLGAGAGAGEEESPATSLPR	R	M	95.00%	4.58	0.437	0	1	1	0	2	1,933.91	78	97	TRUE	
SNU216LR_PC5_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	1	1	0.01%	4.10%	GSYGDLGGPIITTQVTIPK	R	D	91.10%	2.32	0.189	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC5_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	3	3	0.02%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	5.25	0.417	0	1	1	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC5_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	3	3	0.02%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	3.96	0.517	0	0	1	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC5_01	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSER	R	E	95.00%	2.68	0.388	0	1	0	0	2	1,418.54	194	207	TRUE	
SNU216LR_PC5_01	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	2.99	0.324	0	3	0	0	2	1,644.64	194	209	TRUE	
SNU216LR_PC5_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	3	3	0.02%	5.48%	AGGASPAASSTAQPPTQHR	R	L	95.00%	3.11	0.473	0	1	1	0	2	1,871.84	449	467	TRUE	
SNU216LR_PC5_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	3	3	0.02%	5.48%	KASPEPEGEAAGK	R	M	95.00%	2.81	0.391	0	1	0	0	2	1,350.59	382	394	TRUE	
SNU216LR_PC5_01	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	2	0.01%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.64	0.275	0	0	2	0	2	1,497.72	192	204	TRUE	
SNU216LR_PC5_01	Isoform 2 of Ras-related protein Rab-6A	IPI00217943	23,418.20	100.00%	1	1	1	0.01%	11.10%	VAAALPGMESTQDRSREDMIDIK	R	L	92.90%	2.72	0.195	0	0	1	0	2	2,613.21	169	191	TRUE	
SNU216LR_PC5_01	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	3	3	0.02%	13.60%	ERSPSPLRGNVVPSPLPTR	R	R	95.00%	3.37	0.511	0	1	0	0	2	2,299.04	28	46	TRUE	
SNU216LR_PC5_01	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	3	3	0.02%	13.60%	GNVVPSPLPTR	R	R	95.00%	2.13	0.471	0	1	0	0	2	1,216.61	36	46	TRUE	
SNU216LR_PC5_01	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	3	3	0.02%	13.60%	GNVVPSPLPTRR	R	T	95.00%	2.33	0.318	0	1	0	0	2	1,372.71	36	47	TRUE	
SNU216LR_PC5_01	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	3	3	0.02%	9.05%	GSPHYFSPFRPY	R	-	95.00%	2.02	0.414	0	1	1	0	2	1,534.65	210	221	TRUE	
SNU216LR_PC5_01	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	3	3	0.02%	9.05%	STSYGYSR	R	S	95.00%	2.09	0.446	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216LR_PC5_01	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	3	3	0.02%	15.30%	RIDFTPVSPAPSPTR	K	G	95.00%	3.11	0.326	0	1	1	0	2	1,720.84	108	122	TRUE	
SNU216LR_PC5_01	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	3	3	0.02%	15.30%	SSSAPLIHGLSDLSQVFQPYTLR	R	T	95.00%	3.06	0.171	0	0	1	0	2	2,596.28	23	45	TRUE	
SNU216LR_PC5_01	Cyclin-C	IPI00031076,IPI00554688	35,559.70	99.80%	1	1	1	0.01%	6.93%	VEEFGVVSNTRLIAAATSVLK	K	T	95.00%	2.97	0.306	0	1	0	0	2	2,284.19	117	137	TRUE	
SNU216LR_PC5_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQK	K	G	95.00%	2.91	0.37	0	1	0	0	2	1,473.75	596	608	TRUE	
SNU216LR_PC5_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	3.48	0.383	0	0	0	1	2	3,011.63	596	623	TRUE	
SNU216LR_PC5_01	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	3	3	4	0.02%	18.20%	TEESPASDEAGEK	K	E	95.00%	2.77	0.415	0	1	0	0	2	1,429.54	82	94	TRUE	
SNU216LR_PC5_01	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	3	3	4	0.02%	18.20%	TEESPASDEAGEKEAK	K	S	95.00%	2.19	0.373	0	2	0	0	2	1,837.68	82	97	TRUE	
SNU216LR_PC5_01	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	3	3	4	0.02%	18.20%	TEESPASDEAGEKEAKSD	K	-	95.00%	2.74	0.443	0	1	0	0	2	1,959.77	82	99	TRUE	
SNU216LR_PC5_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	1	1	1	0.01%	2.52%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.07	0.31	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216LR_PC5_01	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	4	5	0.03%	17.60%	EEDEENDNDNESDHDEADS	R	-	95.00%	2.56	0.739	0	1	0	0	2	2,287.69	113	131	TRUE	
SNU216LR_PC5_01	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	4	5	0.03%	17.60%	EEKREEDEENDNDNESDHDEADS	K	-	95.00%	5.19	0.496	0	0	1	0	2	2,829.97	109	131	TRUE	
SNU216LR_PC5_01	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	4	5	0.03%	17.60%	REEDEENDNDNESDHDEADS	K	-	95.00%	2.96	0.695	0	1	2	0	2	2,443.79	112	131	TRUE	
SNU216LR_PC6_01	Poly(rC)-binding protein 1	IPI00016610	37,498.20	100.00%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	2.49	0.228	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216LR_PC6_01	hypothetical protein LOC286077	IPI00394829	127,102.90	99.80%	2	2	2	0.02%	4.50%	AVPAPSPGPTHNSPELGRPPAAGVLAPDM!	R	C	95.00%	2.55	0.365	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC6_01	hypothetical protein LOC286077	IPI00394829	127,102.90	99.80%	2	2	2	0.02%	4.50%	KEEASSPGAGEGPAEEGTR	K	D	95.00%	2.43	0.412	0	0	1	0	2	1,938.81	1142	1160	TRUE	
SNU216LR_PC6_01	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	99.60%	1	1	1	0.01%	6.92%	QPSEEEIIK	R	L	92.20%	1.55	0.197	0	1	0	0	2	1,152.52	135	143	TRUE	
SNU216LR_PC6_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.03%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	2.73	0.487	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC6_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.03%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	2.58	0.328	0	0	1	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC6_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	4	7	0.07%	18.10%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	R	F	95.00%	3.55	0.388	0	0	1	0	2	3,671.51	94	122	TRUE	
SNU216LR_PC6_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	4	7	0.07%	18.10%	DWEDDSDEDMSNFDR	K	F	95.00%	1.89	0.585	0	3	1	0	2	1,955.63	108	122	TRUE	
SNU216LR_PC6_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	4	7	0.07%	18.10%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	3.92	0.291	0	0	2	0	2	3,472.37	96	122	TRUE	
SNU216LR_PC6_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.13	0.366	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC6_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.22	0.552	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC6_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.68	0.405	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC6_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	7.07	0.597	0	0	1	2	2	3,735.89	46	80	TRUE	
SNU216LR_PC6_01	Guanine nucleotide-binding protein G(I)/G(S)/G(O	IPI00221232	7,875.40	100.00%	1	1	1	0.01%	15.50%	TASTNNIAQAR	K	R	95.00%	2.22	0.386	0	1	0	0	2	1,226.55	4	14	TRUE	
SNU216LR_PC6_01	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	82.40%	4.58	0.0281	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216LR_PC6_01	Stathmin	IPI00479997	17,171.80	100.00%	3	3	4	0.04%	18.90%	ASGQAFELILSPR	R	S	95.00%	2.28	0.376	0	1	0	0	2	1,468.72	14	26	TRUE	
SNU216LR_PC6_01	Stathmin	IPI00479997	17,171.80	100.00%	3	3	4	0.04%	18.90%	RASGQAFELILSPR	K	S	95.00%	2.61	0.331	0	0	1	0	2	1,624.82	13	26	TRUE	
SNU216LR_PC6_01	Stathmin	IPI00479997	17,171.80	100.00%	3	3	4	0.04%	18.90%	SKESVPEFPLSPPK	R	K	95.00%	2.23	0.356	0	2	0	0	2	1,621.79	27	40	TRUE	
SNU216LR_PC6_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.70%	1	2	2	0.02%	11.40%	KPATPAEDDEDDDDILFGSDNEEEDKEAAQ	K	E	95.00%	4.36	0.488	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC6_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	99.80%	1	1	1	0.01%	0.90%	TQPDGTSVPGEPASPISQR	R	L	95.00%	1.42	0.36	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC6_01	Small acidic protein	IPI00003419	20,332.70	100.00%	2	3	3	0.03%	13.10%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	3.12	0.416	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC6_01	Small acidic protein	IPI00003419	20,332.70	100.00%	2	3	3	0.03%	13.10%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	1.7	0.361	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	6	0.06%	1.69%	GGVTGSPEASISGSK	K	G	95.00%	1.77	0.263	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	6	0.06%	1.69%	GHYEVTGSDDETGK	K	L	95.00%	1.96	0.469	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	6	0.06%	1.69%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	2.86	0.332	0	0	0	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	6	0.06%	1.69%	SKGHYEVTGSDDETGK	K	L	95.00%	2.58	0.251	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	6	0.06%	1.69%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	3.83	0.351	0	0	0	1	2	2,817.29	2903	2929	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	6	0.06%	1.69%	SNSFSDER	R	E	95.00%	1.43	0.437	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC6_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	99.80%	2	2	2	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	2.03	0.435	0	1	0	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC6_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	99.80%	2	2	2	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	2.96	0.431	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC6_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	3	3	0.03%	5.40%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	4.31	0.487	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC6_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	3	3	0.03%	5.40%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	5.41	0.502	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216LR_PC6_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	3	3	0.03%	5.40%	SNTENLSQHFR	R	K	91.40%	1.56	0.277	0	1	0	0	2	1,412.60	55	65	TRUE	
SNU216LR_PC6_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	3	3	0.03%	11.90%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	2.2	0.447	0	1	1	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC6_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	3	3	0.03%	11.90%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	2.45	0.449	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216LR_PC6_01	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	2.95	0.428	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216LR_PC6_01	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	3	3	0.03%	15.50%	DLLHPSPEEEKR	K	K	89.80%	1.42	0.281	0	1	1	0	2	1,529.70	13	24	TRUE	
SNU216LR_PC6_01	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	3	3	0.03%	15.50%	DLLHPSPEEEKRK	K	H	82.20%	2.61	0.145	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216LR_PC6_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	99.80%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.38	0.524	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC6_01	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	99.40%	2	2	2	0.02%	2.15%	EQYVPPRSPK	K	-	95.00%	1.62	0.291	0	1	0	0	2	1,280.60	596	605	TRUE	
SNU216LR_PC6_01	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	99.40%	2	2	2	0.02%	2.15%	NGKEQYVPPRSPK	R	-	88.90%	2.15	0.194	0	0	1	0	2	1,579.76	593	605	TRUE	
SNU216LR_PC6_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	99.80%	1	2	2	0.02%	13.00%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.69	0.502	0	0	1	1	2	4,277.68	238	275	TRUE	
SNU216LR_PC6_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	4.56	0.347	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC6_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	2.3	0.431	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC6_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	5	0.05%	31.30%	KEESEESDDDMGFGLFD	K	-	95.00%	4.25	0.399	0	4	0	0	2	2,045.72	99	115	TRUE	
SNU216LR_PC6_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	5	0.05%	31.30%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.97	0.383	0	1	0	0	2	1,948.94	3	21	TRUE	
SNU216LR_PC6_01	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	1	1	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	3.13	0.408	0	0	1	0	2	1,800.96	35	48	TRUE	
SNU216LR_PC6_01	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	2	2	2	0.02%	8.87%	KVMDSDEDDDY	R	-	95.00%	1.22	0.382	0	1	0	0	2	1,427.46	114	124	TRUE	
SNU216LR_PC6_01	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	2	2	2	0.02%	8.87%	VMDSDEDDDY	K	-	95.00%	0.858	0.51	0	1	0	0	2	1,299.36	115	124	TRUE	
SNU216LR_PC6_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	1.82	0.268	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC6_01	Protein S100-A16	IPI00062120	11,801.90	100.00%	1	1	1	0.01%	10.70%	LIHEQEQQSSS	K	-	95.00%	2.06	0.171	0	1	0	0	2	1,365.57	93	103	TRUE	
SNU216LR_PC6_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	1.71	0.406	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC6_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.51	0.319	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC6_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	1	2	2	0.02%	7.82%	VVDYSQFQESDDADEDYGR	K	D	95.00%	2.16	0.385	0	1	1	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC6_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	1	1	1	0.01%	3.80%	SGPKPFSAPKPQTSPSPK	K	R	95.00%	1.93	0.222	0	0	1	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC6_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.80%	1	1	1	0.01%	17.00%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	2.55	0.238	0	0	1	0	2	4,104.59	78	115	TRUE	
SNU216LR_PC6_01	BET1-like protein	IPI00009772,IPI00396263	11,137.60	99.70%	2	2	2	0.02%	15.30%	AQSPGAVEEILDR	R	E	95.00%	2.5	0.514	0	1	0	0	2	1,464.67	7	19	TRUE	
SNU216LR_PC6_01	BET1-like protein	IPI00009772,IPI00396263	11,137.60	99.70%	2	2	2	0.02%	15.30%	AQSPGAVEEILDRENKR	R	M	93.70%	2.52	0.153	0	0	1	0	2	1,991.95	7	23	TRUE	
SNU216LR_PC6_01	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	99.90%	1	1	1	0.01%	11.60%	TTSAGTGGMWR	R	F	95.00%	1.87	0.271	0	1	0	0	2	1,204.48	46	56	TRUE	
SNU216LR_PC6_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	2	2	0.02%	12.20%	GPSWDPFRDWYPHSR	R	L	95.00%	2.82	0.444	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC6_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	2	2	0.02%	12.20%	QLSSGVSEIR	R	H	95.00%	2.04	0.354	0	1	0	0	2	1,155.54	80	89	TRUE	
SNU216LR_PC1_02	Zinc finger protein 40	IPI00013444	297,216.50	99.70%	2	2	2	0.01%	1.40%	SSFTPSSPENVIGDFLLQDR	K	S	93.00%	3.61	0.0264	0	1	0	0	2	2,289.04	531	550	TRUE	
SNU216LR_PC1_02	Zinc finger protein 40	IPI00013444	297,216.50	99.70%	2	2	2	0.01%	1.40%	SVGDDEELQQNESGTSPK	K	S	95.00%	2.33	0.321	0	1	0	0	2	1,999.81	1035	1052	TRUE	
SNU216LR_PC1_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	4.07	0.476	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216LR_PC1_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	86.60%	3.19	0.042	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216LR_PC1_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.87	0.493	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216LR_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	5	5	0.03%	6.24%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	4.5	0.418	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216LR_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	5	5	0.03%	6.24%	LLGPAPEDDGGHNDHSQPQASQDQDSHT	R	-	95.00%	3.89	0.159	0	0	1	0	2	3,557.52	1235	1267	TRUE	
SNU216LR_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	5	5	0.03%	6.24%	RLLGPAPEDDGGHNDHSQPQASQDQDSH	R	-	95.00%	5.99	0.488	0	0	1	1	2	3,713.62	1234	1267	TRUE	
SNU216LR_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	5	5	0.03%	6.24%	VLHSSNPVPLYAPNLSPPADSR	K	I	95.00%	4.83	0.518	0	0	1	0	2	2,411.18	558	579	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	5	5	0.03%	4.88%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	3.89	0.276	0	0	1	1	2	2,851.43	615	639	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	5	5	0.03%	4.88%	RASQEANLLTLAQK	R	A	95.00%	3.57	0.196	0	1	1	0	2	1,622.83	459	472	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	5	5	0.03%	4.88%	RESPSEERLEPK	R	R	95.00%	2.38	0.254	0	1	0	0	2	1,536.71	921	932	TRUE	
SNU216LR_PC1_02	Putative chloride channel protein 7	IPI00020524,IPI00745767	89,390.00	99.80%	1	2	2	0.01%	3.20%	VGHMSSVELDDELLDPDMDPPHPFPK	R	E	95.00%	5.82	0.385	0	0	1	1	2	2,997.31	56	81	TRUE	
SNU216LR_PC1_02	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.80%	2	2	2	0.01%	1.57%	MSMTGAGKSPPSVQSLAMR	K	L	95.00%	3.24	0.321	0	0	1	0	2	2,015.91	132	150	TRUE	
SNU216LR_PC1_02	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.80%	2	2	2	0.01%	1.57%	SPPSVQSLAMR	K	L	95.00%	1.96	0.293	0	1	0	0	2	1,252.58	140	150	TRUE	
SNU216LR_PC1_02	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	4	4	5	0.03%	3.67%	ALTDDSDENEEEDAFTDQK	K	I	95.00%	3.84	0.661	0	2	0	0	2	2,331.81	1207	1225	TRUE	
SNU216LR_PC1_02	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	4	4	5	0.03%	3.67%	DPAGDISVTPPAPAALPVALPTVASK	R	G	95.00%	3.24	0.375	0	0	1	0	2	2,535.31	327	352	TRUE	
SNU216LR_PC1_02	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	4	4	5	0.03%	3.67%	LFDDEASVDEPR	R	R	95.00%	1.92	0.249	0	1	0	0	2	1,472.59	639	650	TRUE	
SNU216LR_PC1_02	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	4	4	5	0.03%	3.67%	RLFDDEASVDEPR	R	R	88.70%	2.37	0.135	0	1	0	0	2	1,628.70	638	650	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to melanoma inhibitory activit	IPI00374065,IPI00455473	213,705.70	100.00%	1	1	1	0.01%	1.42%	WSAEASGKPSPSDPGSGTATMMNSSSR	R	G	95.00%	5.64	0.0636	0	0	1	0	2	2,763.14	1716	1742	TRUE	
SNU216LR_PC1_02	Isoform 2 of Dedicator of cytokinesis protein 9	IPI00719015	236,430.60	100.00%	2	2	2	0.01%	1.50%	KELVIESPLQYK	K	D	95.00%	2.77	0.206	0	1	0	0	2	1,606.75	15	26	TRUE	
SNU216LR_PC1_02	Isoform 2 of Dedicator of cytokinesis protein 9	IPI00719015	236,430.60	100.00%	2	2	2	0.01%	1.50%	SNSLDKHQQSSTLGNSVVR	K	C	95.00%	3.58	0.354	0	0	1	0	2	2,137.00	1272	1290	TRUE	
SNU216LR_PC1_02	septin 9	IPI00748715	63,634.10	99.90%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	93.70%	1.98	0.207	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216LR_PC1_02	septin 9	IPI00748715	63,634.10	99.90%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.72	0.508	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC1_02	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	2	2	2	0.01%	4.40%	GISPIVFDR	R	S	85.90%	1.63	0.233	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216LR_PC1_02	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	2	2	2	0.01%	4.40%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.17	0.495	0	0	1	0	2	2,465.14	415	437	TRUE	
SNU216LR_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.60%	AETPTESVSEPEVATK	K	Q	95.00%	3.63	0.472	0	1	0	0	2	1,754.77	193	208	TRUE	
SNU216LR_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.60%	EGEDGDQPTTPPKPLK	K	T	92.10%	2.32	0.22	0	1	0	0	2	1,788.81	174	189	TRUE	
SNU216LR_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.60%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	4.54	0.266	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216LR_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.60%	TIQEVLEEQSEDEDR	R	E	95.00%	3.21	0.252	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216LR_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.60%	TIQEVLEEQSEDEDREAK	R	R	95.00%	3.25	0.157	0	1	0	0	2	2,227.96	132	149	TRUE	
SNU216LR_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.60%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.04	0.434	0	2	0	0	2	1,839.79	63	79	TRUE	
SNU216LR_PC1_02	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEK	R	K	95.00%	4.76	0.424	0	0	1	0	2	2,415.04	129	149	TRUE	
SNU216LR_PC1_02	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEKK	R	D	95.00%	6.26	0.52	0	0	1	1	2	2,543.14	129	150	TRUE	
SNU216LR_PC1_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	3	3	0.02%	5.42%	AGDLLEDSPK	R	R	95.00%	2.54	0.213	0	1	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC1_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	3	3	0.02%	5.42%	AGDLLEDSPKRPK	R	E	95.00%	2.74	0.171	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC1_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	99.70%	2	2	2	0.01%	3.23%	SESPKEPEQLR	K	K	95.00%	1.86	0.266	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC1_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	99.70%	2	2	2	0.01%	3.23%	SESPKEPEQLRK	K	L	95.00%	2.65	0.319	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216LR_PC1_02	Dynein heavy chain, cytosolic	IPI00456969	532,405.60	100.00%	1	1	1	0.01%	0.34%	RKDSAIQQQVANLQMK	R	I	95.00%	3.69	0.205	0	0	1	0	2	1,937.96	1227	1242	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	RCC1 protein	IPI00001661,IPI00747309	48,144.30	99.50%	1	1	1	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.72	0.356	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC1_02	Peregrin	IPI00023856,IPI00456620	138,186.80	99.80%	2	2	2	0.01%	4.37%	ESQMTPSHGGSPVGPPQLPIMSSLR	R	Q	95.00%	3.47	0.446	0	0	1	0	2	2,670.24	922	946	TRUE	
SNU216LR_PC1_02	Peregrin	IPI00023856,IPI00456620	138,186.80	99.80%	2	2	2	0.01%	4.37%	RLPALSHSEGEEDEDEEEDEGKGWSSEK	R	V	95.00%	4.02	0.467	0	0	1	0	2	3,334.29	455	482	TRUE	
SNU216LR_PC1_02	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	3	4	4	0.02%	1.72%	HDKSSTEEEMEIEK	K	I	95.00%	2.88	0.439	0	1	0	0	2	1,771.71	135	148	TRUE	
SNU216LR_PC1_02	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	3	4	4	0.02%	1.72%	LSGLANVVLHELSGDDDTDQNMR	R	A	95.00%	3.14	0.421	0	1	1	0	2	2,579.14	5	27	TRUE	
SNU216LR_PC1_02	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	3	4	4	0.02%	1.72%	SSSAEESGQDVLENTFSQK	R	H	95.00%	3.78	0.424	0	1	0	0	2	2,122.88	537	555	TRUE	
SNU216LR_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.84%	DFDSSEDEKHSK	K	K	95.00%	2.07	0.322	0	1	0	0	2	1,583.53	778	789	TRUE	
SNU216LR_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.84%	ETFSSAEGTVDKDTTIMELR	R	D	95.00%	3.7	0.449	0	1	0	0	2	2,310.02	818	837	TRUE	
SNU216LR_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.84%	HKLTVSDGESGEEKK	R	T	95.00%	2.45	0.261	0	1	0	0	2	1,803.76	1275	1289	TRUE	
SNU216LR_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.84%	KKDELSDYAEK	K	S	95.00%	3.03	0.273	0	1	0	0	2	1,405.62	988	998	TRUE	
SNU216LR_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.84%	YVESDDEKPLDDETVNEDASNENSENDITM	K	D	95.00%	5.92	0.0372	0	0	1	0	2	4,050.68	89	123	TRUE	
SNU216LR_PC1_02	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	1	1	1	0.01%	1.45%	HLSPYATLTVGDSSHK	K	T	95.00%	4.12	0.431	0	0	1	0	2	1,792.83	818	833	TRUE	
SNU216LR_PC1_02	Isoform 2 of Protein C9orf5	IPI00012429,IPI00607576,IP	100,949.30	99.80%	2	2	2	0.01%	4.41%	AVGPSGGGGETPR	R	T	95.00%	2.08	0.347	0	1	0	0	2	1,221.53	26	38	TRUE	
SNU216LR_PC1_02	Isoform 2 of Protein C9orf5	IPI00012429,IPI00607576,IP	100,949.30	99.80%	2	2	2	0.01%	4.41%	GESAPTLSTSPSPSSPSPTSPSPTLGR	R	R	95.00%	6.09	0	0	1	0	0	2	2,662.22	311	337	TRUE	
SNU216LR_PC1_02	Myosin-10	IPI00397526	228,945.20	100.00%	1	2	2	0.01%	0.96%	QLHLEGASLELSDDDTESK	R	T	95.00%	3.55	0.283	0	1	1	0	2	2,166.94	1945	1963	TRUE	
SNU216LR_PC1_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	3	3	0.02%	13.70%	AHAWPSPYK	R	D	95.00%	1.96	0.424	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216LR_PC1_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	3	3	0.02%	13.70%	AHAWPSPYKDYEVK	R	K	95.00%	3.01	0.365	0	1	0	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC1_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	3	3	0.02%	13.70%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	83.90%	5.92	0.0041	0	0	1	0	2	4,125.84	299	333	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.42%	DSALAEAPEGLSPAPPAR	R	S	95.00%	3.16	0.407	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.42%	RHDSVENSDSHVEK	R	K	95.00%	3.02	0.238	0	0	1	0	2	1,718.71	1163	1176	TRUE	
SNU216LR_PC1_02	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	2	2	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.23	0.468	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216LR_PC1_02	Transcription repressor	IPI00382733	82,672.30	100.00%	2	3	4	0.02%	3.99%	IDGATQSSPAEPK	K	S	95.00%	2.33	0.294	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216LR_PC1_02	Transcription repressor	IPI00382733	82,672.30	100.00%	2	3	4	0.02%	3.99%	RGSGDTSISIDTEASIR	R	E	95.00%	3	0.472	0	2	1	0	2	1,844.84	86	102	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	AQLSPGIYDDTSAR	K	R	95.00%	2.09	0.355	0	1	0	0	2	1,573.69	1469	1482	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	MPIEDSSPEKGR	R	E	95.00%	3.3	0.22	0	1	0	0	2	1,425.61	1190	1201	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	MPIEDSSPEKGREEAASK	R	G	95.00%	3.52	0.286	0	0	1	0	2	2,040.89	1190	1207	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	NDARSPGSISYLPSFFTK	R	L	95.00%	3.82	0.327	0	0	1	0	2	2,066.96	2180	2197	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	5.56	0.447	0	0	1	1	2	2,989.46	206	231	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	5.84	0.576	0	0	2	0	2	2,522.20	2140	2161	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	SPGSISYLPSFFTK	R	L	95.00%	2.78	0.352	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	9	10	0.06%	5.04%	SPNREWEVLQPAPHQVITNLPEGVR	K	L	95.00%	4.9	0.477	0	0	1	0	2	2,946.46	999	1023	TRUE	
SNU216LR_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	2.99%	KHSPSPPPPTPTESR	R	K	95.00%	4.86	0.516	0	2	3	0	2	1,774.76	326	340	TRUE	
SNU216LR_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	2.99%	KHSPSPPPPTPTESRK	R	K	95.00%	3.71	0.228	0	0	1	0	2	1,902.85	326	341	TRUE	
SNU216LR_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	2.99%	RKHSPSPPPPTPTESR	K	K	95.00%	3.43	0.294	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216LR_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	4	5	8	0.05%	2.99%	SPQVPAAQQMLNFPEK	R	N	95.00%	2.23	0.249	0	1	0	0	2	1,864.87	573	588	TRUE	
SNU216LR_PC1_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.90%	2	2	5	0.03%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	4.06	0.294	0	0	2	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC1_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.90%	2	2	5	0.03%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.69	0.308	0	0	3	0	2	3,082.36	191	217	TRUE	
SNU216LR_PC1_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.42	0.352	0	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216LR_PC1_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.37	0.256	0	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216LR_PC1_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	4.69	0.0227	0	0	1	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC1_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.70%	2	2	2	0.01%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	3.03	0.273	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216LR_PC1_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.70%	2	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	93.80%	1.81	0.351	0	1	0	0	2	1,915.77	775	790	TRUE	
SNU216LR_PC1_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	99.90%	1	1	1	0.01%	4.90%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	4.32	0.44	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216LR_PC1_02	Myosin-IXa	IPI00160131	292,714.20	99.80%	2	2	2	0.01%	0.86%	EFKENKEPSPK	K	A	95.00%	2.49	0.263	0	1	0	0	2	1,412.65	1821	1831	TRUE	
SNU216LR_PC1_02	Myosin-IXa	IPI00160131	292,714.20	99.80%	2	2	2	0.01%	0.86%	SLGGISPSEDR	R	R	95.00%	1.77	0.347	0	1	0	0	2	1,197.51	1294	1304	TRUE	
SNU216LR_PC1_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	3	4	4	0.02%	5.97%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	5.37	0.326	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216LR_PC1_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	3	4	4	0.02%	5.97%	SPQGQLDTSESKPDSFFLEPLMPAVLKPAK	R	E	95.00%	3.14	0.268	0	0	1	0	2	3,337.64	297	326	TRUE	
SNU216LR_PC1_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	3	4	4	0.02%	5.97%	VKAPVHFVEPLSPTGVAGHR	K	K	95.00%	3.66	0.361	0	0	1	1	2	2,178.12	791	810	TRUE	
SNU216LR_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	7	9	0.06%	5.18%	ADHRSSPNVANQPPSPGGK	R	S	95.00%	2.77	0.279	0	1	0	0	2	2,075.87	1167	1185	TRUE	
SNU216LR_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	7	9	0.06%	5.18%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	4.33	0.364	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216LR_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	7	9	0.06%	5.18%	SQDADSPGSSGAPENLTFK	K	E	95.00%	4.11	0.455	0	1	0	0	2	1,987.83	1784	1802	TRUE	
SNU216LR_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	7	9	0.06%	5.18%	SSPNVANQPPSPGGK	R	S	95.00%	3.8	0.443	0	3	0	0	2	1,516.68	1171	1185	TRUE	
SNU216LR_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	7	9	0.06%	5.18%	TQVLSPDSLFTAK	K	F	92.80%	2.09	0.197	0	1	0	0	2	1,486.72	1727	1739	TRUE	
SNU216LR_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	7	9	0.06%	5.18%	TSSVVTLEVAK	R	Q	95.00%	2.09	0.293	1	0	0	0	2	1,213.61	1080	1090	TRUE	
SNU216LR_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	7	9	0.06%	5.18%	VTRSQEELREDK	R	A	95.00%	2.9	0.184	0	0	1	0	2	1,569.73	1271	1282	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	DKDVTLSPVK	K	A	95.00%	2.69	0.231	0	1	0	0	2	1,181.58	1525	1534	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	EQESDEEEEEEEEDEPSGATTR	K	S	95.00%	5.19	0.649	0	1	0	0	2	2,633.94	2983	3004	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	3.56	0.427	0	0	1	0	2	2,619.03	2774	2794	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	RTSTPVIMEGVQEETDTR	R	D	95.00%	4.81	0.401	0	1	1	0	2	2,128.96	657	674	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	STADSGGEGLETAPK	K	S	95.00%	2.82	0.397	0	1	0	0	2	1,499.63	262	276	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	6.93	0.627	0	0	1	0	2	3,718.48	2973	3004	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	TDTGIVTVEQSPSSSK	K	L	87.10%	3.57	0.0344	0	0	1	0	2	1,715.77	2895	2910	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	TSVATSTEGKDKDVTLSPVK	K	A	95.00%	3.89	0.364	0	1	1	0	2	2,143.05	1515	1534	TRUE	
SNU216LR_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	9	11	11	0.07%	4.46%	YYSDSDDELTVEQR	K	R	95.00%	3.32	0.066	0	1	0	0	2	1,799.70	480	493	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.73%	LSVSSNDTQESGNSSGPSGAK	R	F	95.00%	4.69	0.0454	0	1	0	0	2	2,185.92	393	414	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.73%	SVDIHDSIQPR	K	S	95.00%	1.95	0.287	0	1	0	0	2	1,346.61	1569	1579	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.73%	TTIPHALLTWRPNSGETAPPPPSPVSEKPLDT	K	S	95.00%	4.94	0.287	0	0	0	1	2	3,943.00	1533	1568	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	AGSSTPGDAPPAVAEVQGR	R	S	95.00%	3.81	0.518	0	2	0	0	2	1,846.83	2876	2894	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	DGGSGNSTIIVSR	R	S	95.00%	2.33	0.427	0	2	0	0	2	1,422.57	2350	2362	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	DLSMSEEDQMMR	R	A	95.00%	2.78	0.533	0	1	0	0	2	1,551.55	1357	1368	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	EESPMDVDQPSPSAQDTQSIASDGTPQGEI	R	E	95.00%	3.14	0.38	0	0	1	0	2	3,227.32	3797	3826	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	ESQLAHIKDEPPPLSPAPLTPATPSSLDPFFSF	R	E	95.00%	5.47	0.28	0	0	1	0	2	3,622.78	3896	3928	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	GSGTASDDEFENLR	R	I	95.00%	3.36	0.515	0	2	0	0	2	1,577.61	1893	1906	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	LGSSGLGSASSIQAAVR	R	Q	95.00%	3.46	0.127	0	1	0	0	2	1,640.80	3741	3757	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	LLGPSAAADILQLSSSLPLQSR	R	G	95.00%	2.8	0.261	0	0	1	0	2	2,317.22	2571	2592	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	6.22	0.105	0	0	2	0	2	3,367.43	3796	3826	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	RRSSDPLGDTASNLGSAVDELMR	R	H	95.00%	5.87	0.56	0	0	1	0	2	2,527.16	646	668	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	RSSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.13	0.501	0	1	1	0	2	2,371.06	647	668	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	SDGSGESAQPPEDSSPPASSESSSTR	R	D	95.00%	4.77	0.031	0	1	0	0	2	2,616.02	2895	2920	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	SHHAASTTTAPTPAAR	R	S	95.00%	3	0.441	0	1	0	0	2	1,656.75	1075	1090	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	SNDSTEQNLSDGTPMPDSYPTTPSSTDAAT	K	E	79.90%	5.21	0.0473	0	0	1	0	2	3,614.45	2717	2750	TRUE	
SNU216LR_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	16	20	0.12%	5.97%	SSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.58	0.507	0	1	0	0	2	2,214.96	648	668	TRUE	
SNU216LR_PC1_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	100.00%	3	3	3	0.02%	2.87%	AESLDDQMLSR	R	E	95.00%	2.52	0.327	0	1	0	0	2	1,344.55	719	729	TRUE	
SNU216LR_PC1_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	100.00%	3	3	3	0.02%	2.87%	AKSLSAMDVEK	R	C	95.00%	1.85	0.263	0	1	0	0	2	1,258.58	603	613	TRUE	
SNU216LR_PC1_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	100.00%	3	3	3	0.02%	2.87%	SLDEADSENKEEVSPLGSK	R	A	95.00%	3.57	0.28	0	1	0	0	2	2,113.92	1197	1215	TRUE	
SNU216LR_PC1_02	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	99.80%	1	1	1	0.01%	1.44%	LLEDSEESSEETVSR	R	A	95.00%	3.17	0.385	0	1	0	0	2	1,789.74	103	117	TRUE	
SNU216LR_PC1_02	KIAA1228 protein	IPI00409635	98,904.50	99.80%	1	1	1	0.01%	3.58%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	6.11	0.0647	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216LR_PC1_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	3	3	3	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.47	0.377	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC1_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	3	3	3	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.85	0.412	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC1_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	3	3	3	0.02%	20.70%	SPEPGQTWTR	R	E	95.00%	1.78	0.268	0	1	0	0	2	1,238.52	94	103	TRUE	
SNU216LR_PC1_02	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	2	3	3	0.02%	1.00%	SPILEEKDIPPLEFPK	R	S	95.00%	3.67	0.512	0	1	1	0	2	1,931.98	216	231	TRUE	
SNU216LR_PC1_02	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	2	3	3	0.02%	1.00%	VLDDVSIRSPETK	R	C	95.00%	3.04	0.345	0	1	0	0	2	1,538.75	1292	1304	TRUE	
SNU216LR_PC1_02	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	2	2	2	0.01%	2.62%	SEEDNEIESEEEVQPK	K	T	95.00%	3.62	0.473	0	1	0	0	2	1,970.78	219	234	TRUE	
SNU216LR_PC1_02	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	2	2	2	0.01%	2.62%	VHVQFFDDSPTR	R	G	95.00%	2.47	0.375	0	1	0	0	2	1,527.66	129	140	TRUE	
SNU216LR_PC1_02	glutamyl-prolyl tRNA synthetase	IPI00013452	170,593.20	100.00%	2	2	2	0.01%	1.46%	EYIPGQPPLSQSSDSSPTR	K	N	95.00%	3.8	0.0299	0	1	0	0	2	2,125.94	871	889	TRUE	
SNU216LR_PC1_02	glutamyl-prolyl tRNA synthetase	IPI00013452	170,593.20	100.00%	2	2	2	0.01%	1.46%	TGKEYIPGQPPLSQSSDSSPTR	K	N	93.50%	3.82	0.0105	0	1	0	0	2	2,412.11	868	889	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	AASPSPQSVR	K	R	95.00%	1.98	0.397	1	2	0	0	2	1,079.49	745	754	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	APQTSSSPPPVR	R	R	95.00%	2.36	0.204	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	EKTPELPEPSVK	K	V	95.00%	2.35	0.363	0	1	0	0	2	1,433.69	218	229	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	HRPSPPATPPPK	R	T	95.00%	2.98	0.458	0	3	5	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	KEKTPELPEPSVK	K	V	95.00%	4	0.391	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	KETESEAEDNLDDLEK	K	H	95.00%	4.88	0.505	0	3	1	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.79	0.419	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.74	0.216	0	0	3	1	2	2,791.42	772	797	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	KVELSESEEDKGGK	R	M	95.00%	3	0.311	0	1	0	0	2	1,614.73	454	467	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	RESPSPAPKPR	K	K	95.00%	2.88	0.314	0	1	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	RSPSPAPPPR	R	R	95.00%	2.23	0.289	0	1	0	0	2	1,141.55	568	577	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	RSPSPAPPPRR	R	R	95.00%	2.18	0.323	0	0	1	0	2	1,297.65	568	578	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	RTASPPPPPK	R	R	89.00%	2.25	0.148	0	1	0	0	2	1,127.56	622	631	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	RTASPPPPPKR	R	R	95.00%	1.93	0.256	0	0	1	0	2	1,283.66	622	632	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	RYSPSPPPKR	R	R	95.00%	2.27	0.274	0	1	0	0	2	1,344.59	612	621	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	TASPPPPPK	R	R	95.00%	2.13	0.427	1	2	0	0	2	971.46	623	631	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	TPTPPPR	R	R	95.00%	1.35	0.496	1	0	0	0	2	925.3582	581	587	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	TRHSPTPQQSNR	K	T	95.00%	3.28	0.312	0	0	1	0	2	1,488.67	406	417	TRUE	
SNU216LR_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	28	40	0.25%	19.90%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.34	0.502	0	1	1	1	2	1,977.99	247	263	TRUE	
SNU216LR_PC1_02	DNA polymerase alpha catalytic subunit	IPI00220317,IPI00647655	165,917.30	99.80%	1	1	1	0.01%	1.44%	SIGASPNPFSVHTATAVPSGK	R	I	95.00%	3.61	0.363	0	0	1	0	2	2,105.01	186	206	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.60%	2	3	3	0.02%	1.52%	SYSSPDITQAIQEEEK	R	R	92.40%	3.36	0.0473	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.60%	2	3	3	0.02%	1.52%	SYSSPDITQAIQEEEKR	R	K	95.00%	3.66	0.339	0	1	1	0	2	2,060.92	716	732	TRUE	
SNU216LR_PC1_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	4	4	0.02%	4.94%	RASDDGKLTDPSK	R	T	95.00%	2.43	0.318	0	1	1	0	2	1,469.66	41	53	TRUE	
SNU216LR_PC1_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	4	4	0.02%	4.94%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.41	0.402	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	10	0.06%	7.65%	EQPEMEDANSEK	R	S	95.00%	2.82	0.388	0	1	0	0	2	1,486.54	11	22	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	10	0.06%	7.65%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.86	0.46	0	0	2	0	2	3,454.32	11	39	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	10	0.06%	7.65%	EVIDASDKEGMSPAK	K	R	95.00%	2.93	0.315	0	1	0	0	2	1,656.72	82	96	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	10	0.06%	7.65%	EVIDASDKEGMSPAKR	K	T	95.00%	3.76	0.314	0	2	1	0	2	1,812.82	82	97	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	10	0.06%	7.65%	KKSPIINESR	R	S	95.00%	2.58	0.286	0	0	1	0	2	1,251.65	275	284	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	10	0.06%	7.65%	LLAPDMFTESDDMFAAYFDSAR	K	L	80.20%	2.51	0.184	0	0	1	0	2	2,609.06	627	648	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	10	0.06%	7.65%	SINEENGEVSEDQSQNK	K	H	95.00%	3.23	0.324	0	1	0	0	2	1,986.79	23	39	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	GISPVVSEHRK	K	Q	95.00%	2.41	0.392	0	0	1	0	2	1,288.64	781	791	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	MSSEGPPRMSPK	R	A	95.00%	2.39	0.35	0	1	0	0	2	1,383.58	614	625	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	3.37	0.328	0	0	1	0	2	2,454.13	755	776	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.57	0.504	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.6	0.47	0	1	0	0	2	2,438.12	4224	4246	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	AQLEPVASPAK	K	K	95.00%	2.49	0.285	1	0	0	0	2	1,190.58	1291	1301	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	ARSDEGQLSPATR	R	G	95.00%	3.46	0.427	0	0	1	0	2	1,467.66	575	587	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	GYYSPYSVSGSGSTAGSR	K	T	94.00%	3.59	0.0341	0	0	1	0	2	1,862.76	4473	4490	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	KRTSSEDNLYLAVLR	R	A	95.00%	3.15	0.27	0	0	1	0	2	1,844.93	17	31	TRUE		
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	2.59	0.185	0	1	0	0	2	2,853.15	4503	4529	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	RTSSEDNLYLAVLR	K	A	95.00%	3.43	0.414	0	0	1	0	2	1,716.83	18	31	TRUE		
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	SDEGQLSPATR	R	G	95.00%	2.29	0.301	0	1	0	0	2	1,240.52	577	587	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	SSSVGSSSSYPISPAVSR	R	T	92.90%	3.75	0.0309	0	2	0	0	2	1,834.82	4247	4264	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	TSSEDNLYLAVLR	R	A	95.00%	3.21	0.424	0	2	0	0	2	1,560.73	19	31	TRUE	
SNU216LR_PC1_02	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	AQNEFKDEAQSLSHSPK	K	R	95.00%	4.72	0.447	0	0	1	0	2	1,995.88	507	523	TRUE	
SNU216LR_PC1_02	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	RVPTTLSIKPLGAISPVLNR	K	K	95.00%	3.54	0.355	0	0	1	0	2	2,212.26	524	543	TRUE	
SNU216LR_PC1_02	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	4	0.02%	4.48%	AASEDMTSDEER	R	M	95.00%	2.15	0.412	0	1	0	0	2	1,500.46	429	440	TRUE	
SNU216LR_PC1_02	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	4	0.02%	4.48%	KNSTDLDSAPEDPTSPK	R	R	80.20%	3.11	0.0327	0	1	0	0	2	2,041.74	1395	1411	TRUE	
SNU216LR_PC1_02	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	4	0.02%	4.48%	SMSETGTAAAPGVSSELLSVAAQTLLSSDTK	R	A	95.00%	5.33	0.0067	0	1	0	0	2	3,089.46	299	329	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Protein capicua homolog	IPI00045360	163,789.70	100.00%	4	4	4	0.02%	4.48%	SSPPLPPPAEER	R	T	81.30%	1.93	0.179	0	1	0	0	2	1,356.62	1245	1256	TRUE	
SNU216LR_PC1_02	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	5	5	0.03%	1.87%	KQSVFSAPSLSAGASAAEPLDR	R	S	95.00%	4.68	0.577	0	1	1	0	2	2,269.09	932	953	TRUE	
SNU216LR_PC1_02	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	5	5	0.03%	1.87%	SIQGVGHMMSTMVLSR	R	K	95.00%	3.94	0.518	0	1	1	0	2	1,813.82	916	931	TRUE	
SNU216LR_PC1_02	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	5	5	0.03%	1.87%	VASFSIPGSSSR	R	Y	95.00%	2.15	0.377	0	1	0	0	2	1,274.58	1830	1841	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC55215	IPI00019447,IPI00477345	142,574.60	100.00%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	2.06	0.361	0	1	0	0	2	1,170.54	403	412	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	AAVLSDSEDEEKASAK	K	K	94.10%	2.13	0.209	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	EAEDSDSDDNIKR	K	G	95.00%	1.99	0.268	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	FHSSDSEEEEHKK	K	Q	95.00%	1.67	0.391	0	1	0	0	2	1,828.59	360	372	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	HQASDSENEELPKPR	R	I	95.00%	2.21	0.247	0	1	1	0	2	1,896.75	232	246	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	HQASDSENEEPPKPR	R	M	93.60%	2.06	0.216	0	1	0	0	2	1,880.72	193	207	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	MDSDEDEKEGEEEK	K	V	95.00%	2.73	0.287	0	1	0	0	2	1,749.60	375	388	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	NQASDSENEELPKPR	R	V	95.00%	2.43	0.276	0	1	0	0	2	1,873.74	284	298	TRUE	
SNU216LR_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	9	9	0.06%	13.70%	VSDSESEGPQK	R	G	95.00%	1.81	0.353	0	1	0	0	2	1,242.49	299	309	TRUE	
SNU216LR_PC1_02	Podocalyxin-like protein 1 precursor	IPI00299116,IPI00604773	55,595.70	99.80%	1	1	2	0.01%	5.68%	LTEELQTVENGYHDNPTLEVMETSSEMQEK	R	K	95.00%	4.75	0.397	0	0	2	0	2	3,561.53	466	495	TRUE	
SNU216LR_PC1_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	2	2	0.01%	2.84%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	2.81	0.192	0	0	1	0	2	2,672.22	157	179	TRUE	
SNU216LR_PC1_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	2	2	0.01%	2.84%	TGSGSPFAGNSPAR	K	E	95.00%	2.75	0.262	0	1	0	0	2	1,385.58	1265	1278	TRUE	
SNU216LR_PC1_02	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	2	4	5	0.03%	0.46%	KQSPVPALPIVVQLMEMGFSR	R	R	95.00%	6.38	0.509	0	1	2	0	2	2,407.23	2452	2472	TRUE	
SNU216LR_PC1_02	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	2	4	5	0.03%	0.46%	RKQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.55	0.475	0	0	1	1	2	2,563.33	2451	2472	TRUE	
SNU216LR_PC1_02	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.50%	2	2	3	0.02%	2.28%	LPNTYPNSSSPGPGGLGGSVHYATMAR	R	S	90.20%	6.5	0	0	0	1	0	2	2,768.25	855	881	TRUE	
SNU216LR_PC1_02	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.50%	2	2	3	0.02%	2.28%	SLSNSNPDISGTPTSPDDEVR	R	S	95.00%	4.63	0.0015	0	2	0	0	2	2,347.93	896	916	TRUE	
SNU216LR_PC1_02	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.90%	2	3	3	0.02%	2.56%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.41	0.576	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216LR_PC1_02	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.90%	2	3	3	0.02%	2.56%	TPPPPSSTFPK	R	A	95.00%	2.24	0.257	0	1	0	0	2	1,235.57	577	587	TRUE	
SNU216LR_PC1_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	4.20%	AEEEHLSSSGGLAK	R	N	95.00%	2.58	0.203	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216LR_PC1_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	4.20%	HLNSSQPSGFGPANSLEDVVR	K	L	95.00%	6.14	0.498	0	0	1	0	2	2,291.05	485	505	TRUE	
SNU216LR_PC1_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	4.20%	SLFFSSKEDIHTSESESK	K	I	95.00%	4.56	0.465	0	0	1	0	2	2,137.93	925	942	TRUE	
SNU216LR_PC1_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	2	0.01%	11.50%	EEDEEPESPPEKK	K	T	95.00%	2.77	0.271	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC1_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	2	0.01%	11.50%	NSQEDSEDSEDKDVK	K	T	95.00%	3.18	0.309	0	1	0	0	2	1,884.64	53	67	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAK	R	K	95.00%	3.55	0.35	0	1	1	0	2	1,435.68	24	35	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAKK	R	L	95.00%	3.17	0.344	0	1	1	0	2	1,563.78	24	36	TRUE	
SNU216LR_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.24%	AFMESPKQILDSAASLTGSK	K	R	95.00%	3.22	0.462	0	0	1	0	2	2,161.02	1675	1694	TRUE	
SNU216LR_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.24%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	5.18	0.575	0	1	0	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.24%	TPVQYSQQQNSPQK	K	H	95.00%	3.43	0.356	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.24%	TSGETTQTHTEPTGDSK	R	S	87.80%	3.21	0.0428	0	1	0	0	2	1,856.75	2504	2520	TRUE	
SNU216LR_PC1_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	3	3	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTK	R	R	95.00%	5.28	0.512	0	0	1	0	2	2,616.12	1181	1203	TRUE	
SNU216LR_PC1_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	3	3	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	5.99	0.424	0	0	1	0	2	2,772.23	1181	1204	TRUE	
SNU216LR_PC1_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	3	3	0.02%	2.94%	SSIHNFMTHPEFR	R	I	95.00%	2.89	0.319	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216LR_PC1_02	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	179,285.00	99.80%	2	3	3	0.02%	2.10%	GRPPAEKLSPNPPK	R	L	95.00%	2.68	0.341	0	1	1	0	2	1,567.80	1369	1382	TRUE	
SNU216LR_PC1_02	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	179,285.00	99.80%	2	3	3	0.02%	2.10%	ISPIQKPQGLDPVEILQER	R	E	95.00%	3.59	0.523	0	0	1	0	2	2,240.17	328	346	TRUE	
SNU216LR_PC1_02	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	100.00%	2	2	2	0.01%	0.72%	LSTSPPPPAIAVPLLEMGFSLR	R	Q	95.00%	3.86	0.565	0	1	0	0	2	2,373.23	2744	2765	TRUE	
SNU216LR_PC1_02	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	100.00%	2	2	2	0.01%	0.72%	RQSLTSPDSQSAR	R	P	95.00%	2.29	0.255	0	1	0	0	2	1,512.68	2718	2730	TRUE	
SNU216LR_PC1_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	5.40%	IGSDPLAYEPK	R	E	95.00%	2.52	0.406	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216LR_PC1_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	5.40%	LDSPTMSR	K	A	95.00%	1.64	0.269	0	1	0	0	2	986.4014	195	202	TRUE	
SNU216LR_PC1_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	5.40%	SKETSSPGTDDVFTPAPSDSPSSQR	R	I	95.00%	5.59	0.481	0	0	1	0	2	2,660.14	270	294	TRUE	
SNU216LR_PC1_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.01	0.427	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC1_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.21	0.414	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC1_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.19	0.409	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC1_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	94.70%	5.53	0.047	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	3	3	3	0.02%	2.86%	AKPVVSDDDSEEEQEEDR	R	S	95.00%	4.01	0.556	0	1	0	0	2	2,236.82	1654	1671	TRUE	
SNU216LR_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	3	3	3	0.02%	2.86%	DSDAGSSTPTTSTR	R	S	95.00%	3.81	0.0523	0	1	0	0	2	1,462.57	1448	1461	TRUE	
SNU216LR_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	3	3	3	0.02%	2.86%	KIPDPDSDDVSEVDAR	K	H	95.00%	3.4	0.52	0	1	0	0	2	1,837.79	689	704	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC440193 isofo	IPI00737659,IPI00740019	228,218.60	99.90%	2	2	2	0.01%	1.68%	DYLQAQHPPSPIK	R	S	95.00%	2.46	0.154	0	1	0	0	2	1,573.74	218	230	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC440193 isofo	IPI00737659,IPI00740019	228,218.60	99.90%	2	2	2	0.01%	1.68%	NTSSNSSPLNLKGSSEQLHGR	R	S	95.00%	3.65	0.375	0	0	1	0	2	2,293.06	1578	1598	TRUE	
SNU216LR_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	AMVDSQQKSPVKR	R	R	80.00%	2.59	0.108	0	1	0	0	2	1,553.75	1374	1386	TRUE	
SNU216LR_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	ASDSK	E	G	84.10%	1.48	0.0508	1	0	0	0	1	667.1736	3046	3050	TRUE	
SNU216LR_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	LLDPEDVDVSSPDEK	R	S	95.00%	3.31	0.203	0	1	0	0	2	1,737.75	227	241	TRUE	
SNU216LR_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	QKSFSEDVISHK	R	G	95.00%	2.73	0.288	0	0	1	0	2	1,484.68	1880	1891	TRUE	
SNU216LR_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	GAGDGSDEEVDGK	K	A	95.00%	2.77	0.478	0	1	0	0	2	1,315.47	1937	1949	TRUE	
SNU216LR_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAK	K	P	95.00%	3.45	0.48	0	1	0	0	2	1,957.77	1937	1956	TRUE	
SNU216LR_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.73	0.521	0	2	1	0	2	2,254.90	1937	1959	TRUE	
SNU216LR_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	4.99	0.532	0	2	1	0	2	2,085.86	1936	1956	TRUE	
SNU216LR_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	6	0.04%	4.59%	ITPPAAKPGSPQAK	R	S	95.00%	3.3	0.416	0	0	1	0	2	1,442.74	669	682	TRUE	
SNU216LR_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	6	0.04%	4.59%	SAQGSSSPVPSMVQKSPR	R	I	95.00%	3.87	0.412	0	0	1	0	2	1,909.88	651	668	TRUE	
SNU216LR_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	6	0.04%	4.59%	SPGSTPTTPTSSQAPQK	K	L	95.00%	3.67	0.474	0	2	0	0	2	1,751.79	430	446	TRUE	
SNU216LR_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	6	0.04%	4.59%	TFGGFASSSFGEQKPTGTFSSGGGSVASQG	K	T	95.00%	4.25	0.397	0	0	1	0	2	3,771.66	1929	1966	TRUE	
SNU216LR_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	6	0.04%	4.59%	VPAKLSPMK	K	Q	95.00%	1.9	0.271	0	1	0	0	2	1,050.54	935	943	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	DPAQPMSPGEATQSGAR	R	P	95.00%	2.88	0.309	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.74	0.255	0	0	1	0	2	2,218.96	5	25	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	EIPSATQSPISK	K	K	95.00%	2.47	0.329	0	1	0	0	2	1,337.64	1156	1167	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	KGVLGKSPLSALAR	K	K	95.00%	3.02	0.478	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.76	0.348	0	0	2	0	2	2,300.10	1254	1275	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.27	0.35	0	2	2	0	2	2,172.01	1255	1275	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	RKSEDGTPAEDGTPAATGGSQPPSMGR	K	K	95.00%	4.52	0.447	0	0	1	0	2	2,737.19	1184	1210	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	8.43%	SPAPGAPTRSPSTPAK	K	S	95.00%	3.05	0.413	0	1	0	0	2	1,601.77	1232	1247	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	100.00%	3	3	3	0.02%	2.06%	EVDPNDLYIVEPLKFSPEK	K	K	95.00%	4.28	0.36	0	0	1	0	2	2,312.11	1240	1258	TRUE	
SNU216LR_PC1_02	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	100.00%	3	3	3	0.02%	2.06%	EVDPNDLYIVEPLKFSPEKK	K	K	95.00%	5.23	0.311	0	0	1	0	2	2,440.21	1240	1259	TRUE	
SNU216LR_PC1_02	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	100.00%	3	3	3	0.02%	2.06%	SKSLQLTGK	R	E	95.00%	1.93	0.246	0	1	0	0	2	1,041.53	1231	1239	TRUE	
SNU216LR_PC1_02	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	LHGSAFRPSLPAPESPGLPAHPSNPQLPEAR	R	P	95.00%	4.06	0.505	0	0	0	1	2	3,307.64	1334	1364	TRUE	
SNU216LR_PC1_02	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	RPSSVGELASLGQELQAITTATTPSLDSEGQI	R	S	95.00%	6.75	0.0185	0	0	1	0	2	3,789.85	1246	1281	TRUE	
SNU216LR_PC1_02	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	SISLGDSEGPIVATLAQPLR	R	R	95.00%	3.62	0.417	0	1	1	0	2	2,104.07	1226	1245	TRUE	
SNU216LR_PC1_02	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	TRLSTASEETVQNR	R	V	95.00%	2.69	0.331	0	1	0	0	2	1,671.77	46	59	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	1	1	1	0.01%	0.73%	SSFDWLTGSSTDPLVDHTSPSSDSLLFAHK	R	R	91.80%	5.42	0.0398	0	0	1	0	2	3,314.49	2654	2683	TRUE	
SNU216LR_PC1_02	Ankyrin repeat and FYVE domain-containing prot	IPI00159899	128,401.60	99.80%	1	1	1	0.01%	1.97%	VQDASKLTPLHLAVQAGSEIIVR	R	N	95.00%	2.66	0.286	0	0	1	0	2	2,525.35	901	923	TRUE	
SNU216LR_PC1_02	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	99.10%	2	3	3	0.02%	1.95%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	E	95.00%	6.35	0.505	0	0	1	1	2	3,839.87	515	548	TRUE	
SNU216LR_PC1_02	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	99.10%	2	3	3	0.02%	1.95%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	K	83.00%	5.16	0.029	0	0	0	1	2	4,184.04	515	551	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	DKPRSTSPAGQHHSPISSR	R	H	95.00%	2.77	0.235	0	0	1	0	2	2,284.93	312	330	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	EHSPDSDAYNSGDDKNEK	R	H	95.00%	2.47	0.278	0	2	0	0	2	2,087.78	843	860	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	ERTPESEEENVEWETNR	K	D	95.00%	3.07	0.496	0	1	0	0	2	2,293.86	132	148	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	EVSPEVVR	K	S	95.00%	2.02	0.416	0	1	0	0	2	994.4605	196	203	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	GDSDISDEEAAQQSK	K	K	95.00%	3.36	0.458	0	1	0	0	2	1,659.64	1012	1026	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	GDSDISDEEAAQQSKK	K	K	88.00%	2.97	0.16	0	0	1	0	2	1,867.70	1012	1027	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	GNIETTSEDGQVFSPK	R	K	95.00%	2.69	0.266	0	2	0	0	2	1,868.74	980	995	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	GPRTPSPPPPIPEDIALGK	K	K	95.00%	3.84	0.337	0	0	1	0	2	2,099.00	260	278	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	HHSSSSQSGSSIQRHSPSPR	R	R	79.80%	2.76	0.134	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	KGPRTPSPPPPIPEDIALGK	K	K	95.00%	4.68	0.328	0	0	1	0	2	2,227.09	259	278	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	KTSAVSSPLLDQQR	R	N	95.00%	2.85	0.328	0	2	0	0	2	1,609.79	236	249	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	NEGSPSPRQSPKR	R	R	95.00%	2.09	0.329	0	1	0	0	2	1,679.63	828	840	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	SASPYPSHSLSSPQR	R	K	95.00%	2.51	0.35	0	2	0	0	2	1,680.74	370	384	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	SKGDSDISDEEAAQQSK	K	K	95.00%	4.1	0.414	0	2	0	0	2	1,874.77	1010	1026	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	SLSPSHLTEDR	R	Q	95.00%	2.23	0.333	0	1	1	0	2	1,321.58	875	885	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	TPSPPPPIPEDIALGK	R	K	95.00%	2.77	0.273	0	1	0	0	2	1,788.82	263	278	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	TPSPPPPIPEDIALGKK	R	Y	95.00%	4.3	0.41	0	1	1	0	2	1,916.92	263	279	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	18	20	25	0.15%	11.50%	YRNEGSPSPRQSPK	R	R	95.00%	2.2	0.37	0	1	0	0	2	1,842.70	826	839	TRUE	
SNU216LR_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	6	8	9	0.06%	1.05%	AFVESQQKSPGKR	K	R	95.00%	2.2	0.282	0	1	0	0	2	1,541.75	1324	1336	TRUE	
SNU216LR_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	6	8	9	0.06%	1.05%	MLSSSDAITQEFMDLR	R	T	95.00%	3.91	0.526	0	1	0	0	2	1,923.82	1339	1354	TRUE	
SNU216LR_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	6	8	9	0.06%	1.05%	QGSFSEDVISHK	R	G	95.00%	2.71	0.333	0	1	1	0	2	1,413.60	1823	1834	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	6	8	9	0.06%	1.05%	RQGSFSEDVISHK	K	G	95.00%	2.74	0.298	0	0	1	0	2	1,569.71	1822	1834	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	6	8	9	0.06%	1.05%	SMDAMSSPTK	K	T	95.00%	2.62	0.488	1	1	0	0	2	1,134.42	2367	2376	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	6	8	9	0.06%	1.05%	SMDAMSSPTKTETVK	K	A	95.00%	4.01	0.0659	0	2	0	0	2	1,692.72	2367	2381	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	ASALLFSSDEEDQWNIPASQTHLASDSR	K	S	95.00%	5.91	0.421	0	0	1	0	2	3,155.40	507	534	TRUE	
SNU216LR_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	AVASPEATVSQTDENK	K	A	95.00%	3.41	0.482	0	1	0	0	2	1,726.75	389	404	TRUE	
SNU216LR_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	ERRTPSDDEEDNLFAPPK	K	L	95.00%	2.63	0.239	0	0	1	0	2	2,275.93	222	239	TRUE	
SNU216LR_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	GLFSDEEDSEDLFSSQSASK	K	L	95.00%	4.61	0.575	0	1	0	0	2	2,257.90	430	449	TRUE	
SNU216LR_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	TPSDDEEDNLFAPPK	R	L	95.00%	3.01	0.372	0	1	0	0	2	1,754.72	225	239	TRUE	
SNU216LR_PC1_02	TPR domain, ankyrin-repeat and coiled-coil-conta	IPI00173946	202,247.00	100.00%	3	3	3	0.02%	4.30%	AESSAGDGPVPYSQGSSSLIMPRPNSVAAT	K	L	93.10%	5.06	0.0579	0	0	1	0	2	3,416.57	288	321	TRUE	
SNU216LR_PC1_02	TPR domain, ankyrin-repeat and coiled-coil-conta	IPI00173946	202,247.00	100.00%	3	3	3	0.02%	4.30%	HPASLTSSGSSGSPSSSIK	R	M	94.40%	3.78	0.0374	0	1	0	0	2	1,853.83	1656	1674	TRUE	
SNU216LR_PC1_02	TPR domain, ankyrin-repeat and coiled-coil-conta	IPI00173946	202,247.00	100.00%	3	3	3	0.02%	4.30%	TSDPTQDLHFTPLLSPSSSTSASSTAK	K	T	95.00%	4.67	0.217	0	0	1	0	2	2,843.30	451	477	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	AVTPVPTK	R	T	95.00%	1.47	0.252	1	0	0	0	2	892.4541	524	531	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.31	0.542	0	1	1	0	2	1,792.91	524	539	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.33	0.545	0	0	2	1	2	3,607.64	74	113	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	ETESAPGSPR	K	A	95.00%	1.65	0.294	1	2	0	0	2	1,190.41	514	523	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.44	0.398	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	HSSNPPLESHVGWVMDSR	R	E	95.00%	5.07	0.533	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.33	0.319	0	0	2	0	2	2,405.19	130	152	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	NTFTAWSDEESDYEIDDR	K	D	95.00%	3.76	0.108	0	1	0	0	2	2,272.86	621	638	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	3.81	0.116	0	1	0	0	2	2,729.09	621	642	TRUE	
SNU216LR_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	18	0.11%	14.60%	SLPTTVPESPNYR	R	N	95.00%	2.92	0.352	0	3	0	0	2	1,620.67	766	778	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	HASPDKWNDKPK	K	N	95.00%	2.7	0.25	0	0	1	0	2	1,502.68	85	96	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	KPGPPLSPEIR	R	S	95.00%	2.46	0.293	0	1	0	0	2	1,270.66	421	431	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	KPGPSGPSESPK	R	A	95.00%	1.95	0.266	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.55	0.436	0	0	1	0	2	1,970.88	441	456	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4	0.439	0	0	1	0	2	2,526.21	280	301	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	KTSPASLDFPESQK	R	S	95.00%	3.65	0.39	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	5.37	0.516	0	1	1	0	2	2,314.11	199	219	TRUE	
SNU216LR_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	9	9	0.06%	14.50%	TAPTLSPEHWK	K	A	95.00%	2.2	0.245	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC1_02	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	2	2	2	0.01%	3.65%	GTMDDISQEEGSSSQGEDSVSGSQR	K	I	95.00%	4.88	0.0015	0	0	1	0	2	2,565.99	945	968	TRUE	
SNU216LR_PC1_02	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	2	2	2	0.01%	3.65%	MEEESQSQGRDLTLEENQVKK	R	Y	79.80%	3.16	0.11	0	0	1	0	2	2,558.14	354	374	TRUE	
SNU216LR_PC1_02	CRSP complex subunit 2	IPI00297191	160,666.50	99.20%	1	1	1	0.01%	1.58%	MPGMSPANPSLHSPVPDASHSPR	R	A	95.00%	2.38	0.231	0	0	1	0	2	2,529.05	1124	1146	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	2	2	0.01%	2.20%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	3.5	0.34	0	0	1	0	2	2,778.05	587	608	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	2	2	0.01%	2.20%	STEDLSPQK	K	S	95.00%	2	0.293	0	1	0	0	2	1,084.46	852	860	TRUE	
SNU216LR_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	7	7	7	0.04%	2.14%	AAPPPPPPPPPLESSPR	K	V	95.00%	3.54	0.235	0	1	0	0	2	1,783.88	606	622	TRUE	
SNU216LR_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	7	7	7	0.04%	2.14%	HVTLPSSPR	R	S	95.00%	1.81	0.347	0	1	0	0	2	1,073.51	2714	2722	TRUE	
SNU216LR_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	7	7	7	0.04%	2.14%	RHVTLPSSPR	R	S	95.00%	2.71	0.223	0	0	1	0	2	1,229.62	2713	2722	TRUE	
SNU216LR_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	7	7	7	0.04%	2.14%	SNTPMGDKDDDDDDDADEK	R	M	95.00%	5.22	0.642	0	1	0	0	2	2,177.73	2723	2741	TRUE	
SNU216LR_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	7	7	7	0.04%	2.14%	SNTPMGDKDDDDDDDADEKMQSSGIPNC	R	Q	95.00%	3.06	0.246	0	0	0	1	2	3,512.39	2723	2754	TRUE	
SNU216LR_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	7	7	7	0.04%	2.14%	TGSTSSKEDDYESDAATIVQK	R	C	95.00%	4.38	-0.0099	0	1	0	0	2	2,311.98	360	380	TRUE	
SNU216LR_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	7	7	7	0.04%	2.14%	TSPADHGGSVGSESGGSAVDSVAGEHSVS	R	S	83.30%	6.01	0	0	0	1	0	2	2,920.23	2885	2915	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	ALNTLSSPGQSSFSHGTR	K	N	95.00%	3.35	0.262	0	1	1	0	2	1,926.87	1554	1571	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	AQSYDIQAWK	R	K	92.60%	2.33	0.151	0	1	0	0	2	1,289.56	1313	1322	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	AQSYDIQAWKK	R	Q	95.00%	2.79	0.273	0	1	0	0	2	1,417.65	1313	1323	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	KVLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.62	0.444	0	1	0	0	2	2,438.00	1278	1298	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	KVNEEKDGPISPK	K	K	95.00%	2.75	0.162	0	0	1	0	2	1,520.74	901	913	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	RTAFYNEDDSEEEQR	R	Q	95.00%	3.36	0.382	0	1	1	0	2	1,968.76	1774	1788	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	TAFYNEDDSEEEQR	R	Q	95.00%	3.38	0.487	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.81	0.433	0	1	1	0	2	2,309.91	1279	1298	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	12	12	0.07%	4.28%	VNEEKDGPISPK	K	K	95.00%	2.59	0.166	0	1	0	0	2	1,392.64	902	913	TRUE	
SNU216LR_PC1_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	4.65%	ISHSLYSGIEGLDESPSR	R	N	95.00%	4.16	0.506	0	1	0	0	2	2,026.91	714	731	TRUE	
SNU216LR_PC1_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	4.65%	SPGSPPGPELPIETALDDR	K	E	95.00%	2.75	0.311	0	1	0	0	2	2,027.93	692	710	TRUE	
SNU216LR_PC1_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	4.65%	SSSLESLQTAVAEVTLNGDIPFHRPR	K	P	92.80%	3.24	0.143	0	0	1	0	2	2,904.43	884	909	TRUE	
SNU216LR_PC1_02	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	2	2	0.01%	4.65%	NVDSLSAPHNHPPEDPFGSVPFISHSGSPEK	K	K	95.00%	5.81	0.369	0	0	0	1	2	3,362.51	662	692	TRUE	
SNU216LR_PC1_02	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	2	2	0.01%	4.65%	SESNEDLFGLVPFDEITGSQQQK	K	V	95.00%	2.94	0.452	0	0	1	0	2	2,648.18	947	969	TRUE	
SNU216LR_PC1_02	Isoform 1 of Eukaryotic translation initiation factor	IPI00163851,IPI00456685	186,842.60	100.00%	2	3	3	0.02%	2.67%	HERPAGPGTPPPDSGPLAK	R	D	95.00%	2.84	0.43	0	1	1	0	2	1,960.93	659	677	TRUE	
SNU216LR_PC1_02	Isoform 1 of Eukaryotic translation initiation factor	IPI00163851,IPI00456685	186,842.60	100.00%	2	3	3	0.02%	2.67%	MPLVEQSPEDSGGQDYVETVIPSNR	K	L	95.00%	4.16	0.27	0	0	1	0	2	2,827.25	545	569	TRUE	
SNU216LR_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	5.99%	GDRDESDDGGVAQR	R	M	95.00%	2.49	0.277	0	1	0	0	2	1,556.60	544	557	TRUE	
SNU216LR_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	5.99%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	2.76	0.264	0	1	1	1	2	2,030.85	281	298	TRUE	
SNU216LR_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	5.99%	HEDGTQSDSEDPLAK	K	A	95.00%	3.21	0.379	0	1	0	0	2	1,708.67	284	298	TRUE	
SNU216LR_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	5.99%	LGDASDTEAADGER	R	G	95.00%	2.66	0.341	0	1	0	0	2	1,486.57	1061	1074	TRUE	
SNU216LR_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	5.99%	MALLQEFASRPLGAAPQAEHQGLPVPGSPC	R	W	95.00%	5.27	0.6	0	0	1	0	2	3,419.69	558	590	TRUE	
SNU216LR_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	5.99%	RRSPQEGPTWSR	R	G	95.00%	2.86	0.163	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216LR_PC1_02	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	100.00%	2	2	2	0.01%	3.72%	RPEPSTLENITDDKYATVSSPSK	K	S	82.60%	5.28	0.0179	0	0	1	0	2	2,615.22	461	483	TRUE	
SNU216LR_PC1_02	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	100.00%	2	2	2	0.01%	3.72%	TAADVVSPGANSVDSR	K	V	95.00%	2.64	0.183	0	1	0	0	2	1,625.72	934	949	TRUE	
SNU216LR_PC1_02	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	GIGTPPNTTPIKNGSPEIK	K	L	95.00%	3.19	0.365	0	1	0	0	2	2,001.01	107	125	TRUE	
SNU216LR_PC1_02	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	IQDPTEDAEAEDTPR	R	K	95.00%	3.29	0.445	0	1	0	0	2	1,766.71	532	546	TRUE	
SNU216LR_PC1_02	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	RIQDPTEDAEAEDTPR	K	K	95.00%	3.89	0.339	0	1	1	0	2	1,922.81	531	546	TRUE	
SNU216LR_PC1_02	VPRBP protein	IPI00181396,IPI00329528	168,940.10	99.60%	1	2	2	0.01%	1.60%	HLPSPPTLDSIITEYLR	R	E	95.00%	3.54	0.453	0	1	1	0	2	2,032.02	996	1012	TRUE	
SNU216LR_PC1_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	99.80%	1	1	1	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.63	0.3	0	1	0	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC1_02	Ras GTPase-activating-like protein IQGAP1	IPI00009342	189,258.60	100.00%	1	2	2	0.01%	0.91%	SKSVKEDSNLTLQEK	K	K	95.00%	3.1	0.411	0	1	1	0	2	1,785.86	1441	1455	TRUE	
SNU216LR_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	6	6	0.04%	4.60%	RSSGFISELPSEEGK	K	K	95.00%	4.14	0.452	0	1	0	0	2	1,702.77	966	980	TRUE	
SNU216LR_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	6	6	0.04%	4.60%	SERPPTILMTEEPSSPK	K	G	95.00%	3.98	0.384	0	1	1	0	2	1,978.92	1080	1096	TRUE	
SNU216LR_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	6	6	0.04%	4.60%	SSGFISELPSEEGK	R	K	95.00%	2.43	0.221	0	1	0	0	2	1,546.67	967	980	TRUE	
SNU216LR_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	6	6	0.04%	4.60%	SWGQQAQEYQEQK	R	Q	95.00%	2.99	0.408	0	1	0	0	2	1,689.69	1286	1298	TRUE	
SNU216LR_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	6	6	0.04%	4.60%	TASRPDDIPDSPSSPK	R	V	95.00%	3.62	0.486	0	1	0	0	2	1,749.77	1233	1248	TRUE	
SNU216LR_PC1_02	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	1	1	1	0.01%	0.63%	LTAGVPDTPTR	R	L	95.00%	2.33	0.235	0	1	0	0	2	1,207.57	1453	1463	TRUE	
SNU216LR_PC1_02	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	4	4	0.02%	2.40%	DTPRPDHPPHDGHSPASR	R	E	95.00%	3.62	0.47	0	0	0	1	2	2,055.88	1197	1214	TRUE	
SNU216LR_PC1_02	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	4	4	0.02%	2.40%	SSSLDGEHHDGYHR	R	D	95.00%	3.01	0.451	0	1	1	1	2	1,676.65	1277	1290	TRUE	
SNU216LR_PC1_02	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	GTDTQTPAVLSPSK	K	T	95.00%	2.16	0.323	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216LR_PC1_02	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	3.83	0.236	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216LR_PC1_02	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	TNKSPEAKPLPGK	K	L	95.00%	3.62	0.396	0	0	1	0	2	1,446.74	64	76	TRUE	
SNU216LR_PC1_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	4	0.02%	3.33%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.68	0.393	0	1	1	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC1_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	4	0.02%	3.33%	SPQMVSAIVR	R	T	95.00%	2.15	0.371	0	1	0	0	2	1,167.56	191	200	TRUE	
SNU216LR_PC1_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	4	0.02%	3.33%	TSMGGTQQQFVEGVR	R	M	95.00%	3.49	0.515	0	1	0	0	2	1,704.74	551	565	TRUE	
SNU216LR_PC1_02	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	6	7	7	0.04%	10.60%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	4.37	0.463	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216LR_PC1_02	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	6	7	7	0.04%	10.60%	GKELSDQATASPIVAR	K	T	95.00%	3.71	0.478	0	1	0	0	2	1,722.84	86	101	TRUE	
SNU216LR_PC1_02	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	6	7	7	0.04%	10.60%	LTQTSSTEQLNVLETETEVLNK	K	E	95.00%	4.33	0.0086	0	1	0	0	2	2,557.23	157	178	TRUE	
SNU216LR_PC1_02	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	6	7	7	0.04%	10.60%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.51	0.411	0	1	1	0	2	2,172.03	344	362	TRUE	
SNU216LR_PC1_02	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	6	7	7	0.04%	10.60%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	5.99	0.123	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216LR_PC1_02	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	6	7	7	0.04%	10.60%	VGNESPVQELK	K	Q	95.00%	2.56	0.326	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain containing, family G,	IPI00291711	128,247.70	100.00%	2	2	2	0.01%	2.67%	SHSVPENMVEPPLSGR	R	V	95.00%	2.51	0.296	0	1	0	0	2	1,815.81	1023	1038	TRUE	
SNU216LR_PC1_02	pleckstrin homology domain containing, family G,	IPI00291711	128,247.70	100.00%	2	2	2	0.01%	2.67%	SPLSPTETFSWPDVR	R	E	95.00%	3.04	0.442	0	1	0	0	2	1,798.80	981	995	TRUE	
SNU216LR_PC1_02	General vesicular transport factor p115	IPI00743314	107,909.70	99.80%	1	1	1	0.01%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	-	95.00%	7.25	0.598	0	0	0	1	2	4,157.70	927	962	TRUE	
SNU216LR_PC1_02	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	3	3	3	0.02%	1.70%	ALSPVTSR	K	T	95.00%	1.62	0.39	0	1	0	0	2	910.4394	697	704	TRUE	
SNU216LR_PC1_02	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	3	3	3	0.02%	1.70%	RSPPIKPLLGMNPFQK	K	N	95.00%	3.74	0.444	0	0	1	0	2	1,903.00	2438	2453	TRUE	
SNU216LR_PC1_02	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	3	3	3	0.02%	1.70%	VAVNALAVGEPGTASKPASPIGGPTQEEK	R	T	95.00%	4.32	0.438	0	0	1	0	2	2,855.42	1677	1705	TRUE	
SNU216LR_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	7	0.04%	8.38%	AGLESGAEPGDGDSDTTK	K	K	95.00%	2.69	0.273	0	2	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	7	0.04%	8.38%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.05	0.435	0	2	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	7	0.04%	8.38%	KSLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	5.03	0.481	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	7	0.04%	8.38%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	3.98	0.423	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	4	0.02%	17.40%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	3.97	0.0295	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	4	0.02%	17.40%	GLEDVRPSVESLLDELESSVPSPVPAITVNQC	R	V	95.00%	4.98	0.238	0	0	0	1	2	4,229.03	209	247	TRUE	
SNU216LR_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	4	0.02%	17.40%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.36	0.339	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216LR_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	4	0.02%	17.40%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	4.22	0.335	0	0	1	0	2	3,019.41	318	347	TRUE	
SNU216LR_PC1_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	4	4	0.02%	1.63%	AQGEPVAGHESPK	R	I	95.00%	2.89	0.408	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216LR_PC1_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	4	4	0.02%	1.63%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.22	0.551	0	1	1	1	2	2,016.94	789	806	TRUE	
SNU216LR_PC1_02	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	100.00%	3	3	3	0.02%	3.32%	EAAEPLSEPKEDQEAAELLSEPEEESER	R	H	95.00%	4.2	0.427	0	0	1	0	2	3,221.39	1104	1131	TRUE	
SNU216LR_PC1_02	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	100.00%	3	3	3	0.02%	3.32%	EDQEAAELLSEPEEESER	K	H	95.00%	3.57	0.267	0	1	0	0	2	2,169.87	1114	1131	TRUE	
SNU216LR_PC1_02	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	100.00%	3	3	3	0.02%	3.32%	GLSQEGTGPPTSAGEGHSR	R	T	95.00%	3.21	0.393	0	1	0	0	2	1,904.81	80	98	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	3	3	3	0.02%	5.03%	HPPLYQAGLTPPLSPPK	R	S	95.00%	3.26	0.285	0	0	1	0	2	1,892.97	491	507	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	3	3	3	0.02%	5.03%	LSLSPALQDALHTFPQLQVEQSGEGSPEEGA	R	L	95.00%	3.33	0.207	0	0	1	0	2	3,570.71	1096	1128	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	3	3	3	0.02%	5.03%	SHGLEPAAPSPR	R	L	95.00%	2.18	0.375	0	1	0	0	2	1,298.59	52	63	TRUE	
SNU216LR_PC1_02	Leukemia virus receptor 2	IPI00009504	70,393.40	98.80%	1	1	1	0.01%	2.15%	EGALSRVSDESLSK	K	V	95.00%	2.84	0.205	0	1	0	0	2	1,637.68	249	262	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	99.80%	2	2	2	0.01%	4.35%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	6.49	0.0364	0	0	1	0	2	2,976.44	103	129	TRUE	
SNU216LR_PC1_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	99.80%	2	2	2	0.01%	4.35%	SINKLDSPDPFK	R	L	95.00%	2.98	0.312	0	1	0	0	2	1,440.68	656	667	TRUE	
SNU216LR_PC1_02	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	4	0.02%	4.68%	EGSVLDILKSPGFASPK	K	I	95.00%	3.44	0.388	0	1	0	0	2	1,824.91	605	621	TRUE	
SNU216LR_PC1_02	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	4	0.02%	4.68%	EIKDSTSQHDDDNISTTSGFSSR	K	A	95.00%	3.08	0.328	0	0	1	0	2	2,607.08	168	190	TRUE	
SNU216LR_PC1_02	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	4	0.02%	4.68%	NTSLPPLWSPEAER	K	S	95.00%	2.33	0.32	0	1	0	0	2	1,676.77	201	214	TRUE	
SNU216LR_PC1_02	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	4	0.02%	4.68%	VQMTSPSSTGSPMFK	K	F	95.00%	2.76	0.31	0	1	0	0	2	1,664.71	512	526	TRUE	
SNU216LR_PC1_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.10%	2	3	3	0.02%	12.50%	ENVEYIEREESDGEYDEFGR	R	K	81.40%	2.52	0.207	0	0	1	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC1_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.10%	2	3	3	0.02%	12.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.69	0.605	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216LR_PC1_02	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	4	5	0.03%	6.77%	GSEDSPPKHAGNNESHSSR	K	R	95.00%	3.48	0.391	0	0	2	1	2	2,072.84	438	456	TRUE	
SNU216LR_PC1_02	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	4	5	0.03%	6.77%	GTKGSEDSPPKHAGNNESHSSR	K	R	95.00%	2.78	0.32	0	0	0	1	2	2,438.97	435	456	TRUE	
SNU216LR_PC1_02	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	4	5	0.03%	6.77%	TLSKDDVNYK	R	M	89.00%	1.97	0.222	0	1	0	0	2	1,262.57	9	18	TRUE	
SNU216LR_PC1_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVK	K	R	95.00%	2.44	0.309	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216LR_PC1_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVKR	K	K	95.00%	2.46	0.207	0	1	0	0	2	1,591.76	672	686	TRUE	
SNU216LR_PC1_02	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	3	3	0.02%	3.29%	RPESPPSILTPPVVPTADK	K	V	95.00%	3.09	0.288	0	0	1	0	2	2,081.07	255	273	TRUE	
SNU216LR_PC1_02	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	3	3	0.02%	3.29%	SASPSTQQEKHPTHHER	R	G	95.00%	4.27	0.452	0	0	1	1	2	2,036.89	220	236	TRUE	
SNU216LR_PC1_02	Isoform 1 of Sad1/unc-84 protein-like 1	IPI00401147	91,113.20	99.80%	1	3	3	0.02%	1.70%	HLDAHTAAHSQSPR	R	L	95.00%	3.06	0.458	0	1	1	1	2	1,607.71	228	241	TRUE	
SNU216LR_PC1_02	Sperm specific antigen 2	IPI00386170	137,859.60	99.80%	2	2	4	0.02%	3.82%	NIMTQQKDSFEMEEVQSTEGEAPHVPATY(	R	S	95.00%	7.08	0.595	0	0	1	0	2	4,016.83	458	492	TRUE	
SNU216LR_PC1_02	Sperm specific antigen 2	IPI00386170	137,859.60	99.80%	2	2	4	0.02%	3.82%	SQSLPTTLLSPVR	R	V	95.00%	2.74	0.487	0	3	0	0	2	1,478.76	737	749	TRUE	
SNU216LR_PC1_02	Putative RNA-binding protein 16	IPI00298884,IPI00744707	140,703.00	100.00%	1	2	2	0.01%	1.57%	SSEPVKETVQTTQSPTPVEK	K	E	95.00%	4.48	0.41	0	1	1	0	2	2,252.07	606	625	TRUE	
SNU216LR_PC1_02	PREDICTED: AF-1 specific protein phosphatase isc	IPI00735331,IPI00739012,IP	327,896.40	99.80%	1	1	1	0.01%	0.43%	TEGTPPPPGQPAK	R	G	95.00%	2.2	0.287	0	1	0	0	2	1,356.62	1081	1093	TRUE	
SNU216LR_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	8	9	0.06%	3.88%	GLHVVEVTYDDVPIPNSPFK	K	V	95.00%	6.34	0.452	0	1	0	0	2	2,306.11	1300	1319	TRUE	
SNU216LR_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	8	9	0.06%	3.88%	IPEINSSDMSAHVTSPSGR	K	V	93.10%	3.77	0.0309	0	1	0	0	2	2,064.91	2097	2115	TRUE	
SNU216LR_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	8	9	0.06%	3.88%	LDVTILSPSR	K	K	95.00%	2.66	0.144	0	1	0	0	2	1,180.60	977	986	TRUE	
SNU216LR_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	8	9	0.06%	3.88%	LVSPGSANETSSILVESVTR	R	S	95.00%	3.85	0.425	0	2	0	0	2	2,126.04	2452	2471	TRUE	
SNU216LR_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	8	9	0.06%	3.88%	QKDFLDGVYAFEYYPSTPGR	K	Y	95.00%	3.18	0.342	0	1	1	0	2	2,433.08	503	522	TRUE	
SNU216LR_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	6	8	9	0.06%	3.88%	YADEEIPRSPFK	K	V	95.00%	3.12	0.319	0	1	1	0	2	1,531.68	1497	1508	TRUE	
SNU216LR_PC1_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.70%	1	1	1	0.01%	1.43%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	3.07	0.232	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	AFVEDSEDEDGAGEGGSSLLQK	K	R	95.00%	4.4	0.551	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	YVDEENSDGETSNHR	K	L	95.00%	3.23	0.487	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216LR_PC1_02	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	98.80%	1	2	2	0.01%	2.27%	EAARSPDKPGGSPSASR	R	R	95.00%	3.63	0.401	0	1	1	0	2	1,749.79	45	61	TRUE	
SNU216LR_PC1_02	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	ATEDGEEDEVSAGEK	K	E	95.00%	2.63	0.17	0	1	0	0	2	1,645.61	1425	1439	TRUE	
SNU216LR_PC1_02	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	SKATEDGEEDEVSAGEK	K	E	95.00%	2.67	0.266	0	1	0	0	2	1,860.74	1423	1439	TRUE	
SNU216LR_PC1_02	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	2.69%	SQNSQESTADESEDDMSSQASK	K	S	95.00%	4.93	0.259	0	1	0	0	2	2,440.89	1401	1422	TRUE	
SNU216LR_PC1_02	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	3	3	0.02%	2.45%	LKTEKEPDATPPSPR	K	T	95.00%	2.93	0.397	0	1	1	0	2	1,745.85	329	343	TRUE	
SNU216LR_PC1_02	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	3	3	0.02%	2.45%	NAPAAVDEGSISPR	R	T	95.00%	3.47	0.513	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	4	0.02%	1.57%	IEENSLKEEESIEGEKEVK	K	S	95.00%	3.15	0.238	0	0	1	0	2	2,299.06	1594	1612	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	4	0.02%	1.57%	KMSQPGSPSPK	K	T	94.30%	2.44	0.134	0	1	0	0	2	1,303.52	1557	1567	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	4	0.02%	1.57%	MSQPGSPSPK	K	T	95.00%	2.16	0.36	0	2	0	0	2	1,095.45	1558	1567	TRUE	
SNU216LR_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	2	5	6	0.04%	1.16%	KMSDDEDDDEEEYGKEEHEK	K	E	95.00%	6.36	0.528	0	1	2	1	2	2,536.92	123	142	TRUE	
SNU216LR_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	2	5	6	0.04%	1.16%	MSDDEDDDEEEYGKEEHEK	K	E	95.00%	5.01	0.541	0	1	1	0	2	2,408.82	124	142	TRUE	
SNU216LR_PC1_02	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	4	4	0.02%	2.55%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	3.4	0.349	0	1	1	0	2	2,077.98	64	85	TRUE	
SNU216LR_PC1_02	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	4	4	0.02%	2.55%	RGSQKSTDSPGADAELPESAAR	R	D	91.90%	3.53	0.0462	0	1	0	0	2	2,390.00	14	35	TRUE	
SNU216LR_PC1_02	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	4	4	0.02%	2.55%	STDSPGADAELPESAAR	K	D	95.00%	3.17	0.53	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	6.46	0.537	0	0	1	0	2	3,418.61	1323	1355	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	AQKEEEEEEEEGSPQEEEEEEEEENR	R	A	95.00%	4.69	0.52	0	0	1	0	2	3,130.17	657	681	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	GSTPYKGDDEGIFISR	K	V	95.00%	3.06	0.411	0	1	0	0	2	1,821.81	747	762	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.66	0.522	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	95.00%	7.13	0.0015	0	0	1	0	2	4,174.93	1536	1574	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	LALDGETLGEEEQEDEQPPWASPSPTSR	R	Q	95.00%	4.62	0.383	0	0	1	0	2	3,148.36	1416	1443	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	LPLLPPESPGPLR	R	Q	95.00%	2.53	0.417	0	2	0	0	2	1,465.78	846	858	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	LRVQSPEPPAPER	R	A	95.00%	2.46	0.167	0	1	0	0	2	1,555.76	1471	1483	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	3.01	0.375	0	1	0	0	2	2,609.20	816	837	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	QSPASPPPLGGGAPVR	R	T	95.00%	3.07	0.408	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	11	11	12	0.07%	14.70%	SLEELLLDANQLR	R	E	95.00%	2.88	0.278	0	1	0	0	2	1,593.79	37	49	TRUE	
SNU216LR_PC1_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	4	5	5	0.03%	4.69%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	3.04	0.387	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216LR_PC1_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	4	5	5	0.03%	4.69%	PGTPSDHQSQEASQFER	R	K	95.00%	3.15	0.402	0	1	1	0	2	1,980.81	380	396	TRUE	
SNU216LR_PC1_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	4	5	5	0.03%	4.69%	SQSWEER	R	G	89.00%	1.66	0.236	0	1	0	0	2	1,001.37	158	164	TRUE	
SNU216LR_PC1_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	4	5	5	0.03%	4.69%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	95.00%	6.6	0.0228	0	0	1	0	2	3,783.64	362	396	TRUE	
SNU216LR_PC1_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	7	0.04%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.52	0.362	0	2	1	0	2	1,960.90	609	626	TRUE	
SNU216LR_PC1_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	7	0.04%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	2.43	0.312	0	1	1	0	2	2,089.00	609	627	TRUE	
SNU216LR_PC1_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	7	0.04%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.65	0.504	0	0	2	0	2	2,992.36	1263	1291	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	EESYSPSKDR	K	N	95.00%	2.3	0.279	0	1	0	0	2	1,277.50	428	437	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	FYETKEESYSPSKDR	K	N	95.00%	3.57	0.435	0	1	1	0	2	1,945.82	423	437	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	4.02	0.629	0	1	2	0	2	2,897.99	1234	1256	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	IESDEEEDFENVGK	R	V	95.00%	3.59	0.424	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	KPDSPPKVLEPENK	K	Q	95.00%	4.3	0.434	0	1	1	0	2	1,657.82	704	717	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	KPYRIESDEEEDFENVGK	K	V	95.00%	3.76	0.315	0	0	1	0	2	2,263.98	1298	1315	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	STDEYSEADEEEEEEEGKPSR	R	K	95.00%	4.04	0.584	0	2	0	0	2	2,524.94	1236	1256	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	SVTPTKEFLKDEIK	K	Q	95.00%	3.41	0.461	0	1	1	0	2	1,714.87	365	378	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	4.54	0.382	0	1	1	1	2	2,263.14	553	571	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	VGSPLDYSLVDLPSTNGQSPGK	K	A	95.00%	3.64	0.317	0	3	1	0	2	2,311.09	1316	1337	TRUE	
SNU216LR_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	11	18	22	0.14%	9.51%	VGSPLDYSLVDLPSTNGQSPGKAIENLIGKP	K	S	95.00%	3.06	0.291	0	0	0	1	2	3,604.82	1316	1349	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	ASPSKPASAPASR	R	S	95.00%	1.64	0.341	0	1	0	0	2	1,306.62	814	826	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.91	0.203	0	0	1	1	2	4,211.12	589	627	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	DMESPTKLDVTLAK	K	D	95.00%	3.48	0.334	0	3	1	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	DMSPLSETEMALGK	K	D	95.00%	3.71	0.459	0	4	0	0	2	1,604.66	533	546	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.49	0.454	0	0	3	0	2	3,106.50	533	560	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	DVPPLSETEATPVPIKDMEIAQTQK	K	G	91.80%	3.1	0.208	0	0	1	0	2	2,817.36	603	627	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	DVTPPPETEVVLIK	K	N	95.00%	2.45	0.369	0	2	0	0	2	1,616.82	547	560	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	ETERASPIKMDLAPSK	K	D	95.00%	3.53	0.335	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	91.10%	6.65	0.0231	0	0	1	0	2	3,569.64	628	661	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	6.94	0.101	0	0	1	1	2	3,697.73	628	662	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	RASPSKPASAPASR	K	S	95.00%	2.63	0.407	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	SPSTLLPK	R	K	95.00%	1.84	0.347	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	TEVALAKDMESPTKLDVTLAK	K	D	95.00%	3.86	0.499	0	0	1	0	2	2,340.18	298	318	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	14	19	27	0.17%	15.30%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.4	0.429	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC1_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	AEEKSPISINVK	K	T	88.70%	2.16	0.196	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216LR_PC1_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	EVKAEEKSPISINVK	R	T	95.00%	2.8	0.243	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216LR_PC1_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	4.15	0.386	0	0	1	0	2	2,591.25	92	117	TRUE	
SNU216LR_PC1_02	Calmin	IPI00101942	111,652.50	99.80%	1	1	1	0.01%	2.40%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	3.02	0.197	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216LR_PC1_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	6.77%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	4.08	0.493	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216LR_PC1_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	6.77%	LASPMKPVPGTPPSSK	K	A	94.40%	2.54	0.17	0	1	0	0	2	1,673.83	1205	1220	TRUE	
SNU216LR_PC1_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	6.77%	LSSSDSIGPDVTDILSDIAEEASK	R	L	95.00%	4.96	0.0162	0	1	0	0	2	2,529.15	769	792	TRUE	
SNU216LR_PC1_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	6.77%	NSSQSGGKPGSSPITK	K	H	95.00%	2.83	0.373	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216LR_PC1_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	6.77%	PSSLMNPSLSKPNISPSHSRPPGGSDK	K	L	95.00%	3.71	0.222	0	0	0	1	2	2,854.36	1178	1204	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	4	4	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	3.72	0.297	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	4	4	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	5.62	0.409	0	0	1	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	4	4	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.8	0.407	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC1_02	Isoform 1 of YEATS domain-containing protein 2	IPI00008200	150,780.00	100.00%	3	3	4	0.02%	2.46%	GGHMIAVSPQK	K	Q	95.00%	2.07	0.235	0	1	0	0	2	1,204.55	620	630	TRUE	
SNU216LR_PC1_02	Isoform 1 of YEATS domain-containing protein 2	IPI00008200	150,780.00	100.00%	3	3	4	0.02%	2.46%	QPGQVIGATTPSTGSPTNK	K	I	92.20%	2.43	0.154	0	1	0	0	2	1,920.91	505	523	TRUE	
SNU216LR_PC1_02	Isoform 1 of YEATS domain-containing protein 2	IPI00008200	150,780.00	100.00%	3	3	4	0.02%	2.46%	SSVTK	V	T	94.00%	1.19	0.292	2	0	0	0	1	681.2256	984	988	TRUE	
SNU216LR_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	4	0.02%	3.10%	HSASPVVFTSAR	R	S	95.00%	2.12	0.325	0	1	0	0	2	1,418.59	1430	1441	TRUE	
SNU216LR_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	4	0.02%	3.10%	LIDLESPTPESQK	K	S	95.00%	2.41	0.346	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216LR_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	4	0.02%	3.10%	RLSPGSDIYVTVSSMALAR	R	S	95.00%	3.96	0.427	0	0	1	0	2	2,103.03	1125	1143	TRUE	
SNU216LR_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	4	0.02%	3.10%	TLSDESIYNSQR	R	E	95.00%	2.51	0.307	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	AQGQESDSSETSVR	K	G	95.00%	2.79	0.358	0	2	0	0	2	1,560.62	1051	1064	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	GPGEPDSPTPLHPPTPPILSTDR	K	S	95.00%	3.4	0.311	0	0	2	0	2	2,458.17	1831	1853	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	NDRDQHTDSTQSANSSPDEDTEVK	R	T	95.00%	4.82	0.347	0	0	2	0	2	2,756.09	2377	2400	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	NSSTPGLQVPVSPTVPIQNQK	R	Y	95.00%	3.46	0.168	0	0	1	0	2	2,271.14	3025	3045	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	SASPSVPGPTKPKPK	R	T	95.00%	3.12	0.417	0	1	0	0	2	1,557.80	3525	3539	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	SDTPEVHPPLPISQSPENESNDRR	R	S	95.00%	3.3	0.396	0	0	1	0	2	2,781.25	504	527	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	SPTVPSQNPSR	R	L	95.00%	1.9	0.311	0	1	0	0	2	1,249.56	2938	2948	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	SREDSPELNPPPGIEDNR	R	Q	95.00%	3.98	0.415	0	1	0	0	2	2,101.92	1854	1871	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	SSIAGSEDAEPLAPPIKPIKPVTR	K	N	95.00%	3.49	0.436	0	0	1	0	2	2,553.33	1114	1137	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	SSPEGPDPPVLTEVSK	R	Q	95.00%	2.47	0.38	0	1	0	0	2	1,718.79	1684	1699	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	TIAHSPTSFTESSSK	R	E	95.00%	4.01	0.213	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	TPSYSPTQR	R	S	95.00%	2.04	0.322	0	1	0	0	2	1,116.47	2147	2155	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	13	13	16	0.10%	6.20%	YVPNSTDSPGPSQISNAAVQTTPPHLKPATI	K	L	95.00%	4.31	0.252	0	0	1	0	2	3,412.64	3046	3077	TRUE	
SNU216LR_PC1_02	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	1	1	1	0.01%	0.56%	VPSPPPTGDDGGGGGGR	R	E	95.00%	2.07	0.243	0	1	0	0	2	1,502.63	8	23	TRUE	
SNU216LR_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	ESESEAKVDGETASDSESR	R	A	95.00%	3.49	0.34	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216LR_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	5.56	0.466	0	1	1	0	2	2,128.94	8	26	TRUE	
SNU216LR_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	VAHEPVAPPEDKESESEAKVDGETASDSESF	R	A	95.00%	5.68	0.382	0	0	1	1	2	3,362.45	8	38	TRUE	
SNU216LR_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	VDGETASDSESR	K	A	95.00%	2.27	0.404	1	1	0	0	2	1,332.50	27	38	TRUE	
SNU216LR_PC1_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	3.01%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	3.48	0.346	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC1_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	3.01%	FPTTATKISPK	K	E	95.00%	2.3	0.193	0	1	0	0	2	1,270.64	414	424	TRUE	
SNU216LR_PC1_02	Isoform 1 of STE20-like serine/threonine-protein I	IPI00022827	142,697.80	100.00%	2	3	3	0.02%	4.21%	AEVTEEVEDGKEEDEEEETENSLPIPASK	K	R	95.00%	2.58	0.356	0	0	1	0	2	3,312.41	309	337	TRUE	
SNU216LR_PC1_02	Isoform 1 of STE20-like serine/threonine-protein I	IPI00022827	142,697.80	100.00%	2	3	3	0.02%	4.21%	VDEDSAEDTQSNDGKEVVEVGQK	K	L	95.00%	4.15	0.289	0	1	1	0	2	2,558.08	561	583	TRUE	
SNU216LR_PC1_02	Protein C21orf5	IPI00294653	258,230.60	100.00%	2	2	2	0.01%	1.31%	KNSWEPKPITVPQFK	R	Q	89.00%	3	0.152	0	0	1	0	2	1,878.95	679	693	TRUE	
SNU216LR_PC1_02	Protein C21orf5	IPI00294653	258,230.60	100.00%	2	2	2	0.01%	1.31%	SSESPSSSPSSPARK	K	N	95.00%	2.38	0.317	0	1	0	0	2	1,570.67	711	725	TRUE	
SNU216LR_PC1_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	GLPSPYNMSSAPGSR	K	S	95.00%	2.28	0.265	0	1	0	0	2	1,600.68	2812	2826	TRUE	
SNU216LR_PC1_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	SGSLSLTQFADMISLK	R	N	95.00%	3.03	0.454	0	1	0	0	2	1,777.84	2549	2564	TRUE	
SNU216LR_PC1_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	SMSFQGIR	R	Q	95.00%	2.05	0.333	0	1	0	0	2	1,005.42	2207	2214	TRUE	
SNU216LR_PC1_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	2.23%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.76	0.0042	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216LR_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	8	8	0.05%	6.53%	GLQSLPTHDPSPLQR	K	Y	95.00%	2.86	0.315	0	1	1	0	2	1,725.83	1067	1081	TRUE	
SNU216LR_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	8	8	0.05%	6.53%	LLQETELVEPLTPSGAMPNQAQMR	R	I	95.00%	4.03	0.421	0	0	1	0	2	2,733.30	660	683	TRUE	
SNU216LR_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	8	8	0.05%	6.53%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.3	0.401	0	1	0	0	2	1,993.88	1024	1042	TRUE	
SNU216LR_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	8	8	0.05%	6.53%	SGGGDLTLGLEPSEEEAPRSPLAPSEGAGSD	R	G	95.00%	6.64	0.147	0	0	1	1	2	4,223.90	1024	1066	TRUE	
SNU216LR_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	8	8	0.05%	6.53%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.65	0.614	0	1	1	0	2	2,329.01	1043	1066	TRUE	
SNU216LR_PC1_02	CDA02	IPI00012462	67,852.50	99.80%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.39	0.407	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216LR_PC1_02	MOP-3	IPI00023649	154,161.30	99.80%	2	2	2	0.01%	1.51%	KKSIDPDSIQSALLASGLGSK	K	R	95.00%	3.14	0.282	0	0	1	0	2	2,195.13	791	811	TRUE	
SNU216LR_PC1_02	MOP-3	IPI00023649	154,161.30	99.80%	2	2	2	0.01%	1.51%	SIDPDSIQSALLASGLGSK	K	R	95.00%	3.47	0.487	0	1	0	0	2	1,938.94	793	811	TRUE	
SNU216LR_PC1_02	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	100.00%	1	1	1	0.01%	2.42%	LGPQNFIDETSDIENLLKEEEDYKEENNDSK	K	E	95.00%	4.47	0.378	0	0	1	0	2	3,735.64	629	659	TRUE	
SNU216LR_PC1_02	Epiplakin	IPI00010951	553,088.70	100.00%	2	3	3	0.02%	0.40%	QVSASELHTSGILGPETLR	R	D	95.00%	3.48	0.521	0	1	1	0	2	2,075.02	2689	2707	TRUE	
SNU216LR_PC1_02	Epiplakin	IPI00010951	553,088.70	100.00%	2	3	3	0.02%	0.40%	RQVSASELHTSGILGPETLR	R	D	95.00%	3.94	0.327	0	0	1	0	2	2,231.12	2688	2707	TRUE	
SNU216LR_PC1_02	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	4	0.02%	2.84%	YSPTSPTYSPTSPVYTPTSPK	K	Y	95.00%	4.29	-0.0004	0	1	0	0	2	2,338.05	1890	1910	TRUE	
SNU216LR_PC1_02	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	4	0.02%	2.84%	YSPTSPTYSPTTPK	K	Y	89.70%	3.57	0.006	0	2	0	0	2	1,686.67	1876	1889	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	4	0.02%	2.84%	YTPTSPSYSPSSPEYTPTSPK	K	Y	95.00%	3.81	0.0563	0	1	0	0	2	2,354.01	1841	1861	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	6	8	9	0.06%	4.13%	ESTHQSEDVFLPSPR	R	D	95.00%	3.3	0.368	0	1	0	0	2	1,808.79	956	970	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	6	8	9	0.06%	4.13%	GGIDNPAITSDQELDDK	K	K	95.00%	3.53	0.303	0	1	0	0	2	1,867.80	1209	1225	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	6	8	9	0.06%	4.13%	GGIDNPAITSDQELDDKK	K	M	95.00%	4.68	0.457	0	2	1	0	2	1,995.89	1209	1226	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	6	8	9	0.06%	4.13%	NMIENSYLSDNTR	K	E	82.90%	2.11	0.157	0	1	0	0	2	1,636.67	943	955	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	6	8	9	0.06%	4.13%	RTHSDASDDEAFTTSK	R	T	95.00%	4.12	0.485	0	1	1	0	2	1,847.74	1170	1185	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	6	8	9	0.06%	4.13%	THSDASDDEAFTTSK	R	T	95.00%	2.87	0.533	0	1	0	0	2	1,771.61	1171	1185	TRUE	
SNU216LR_PC1_02	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	99.80%	1	1	1	0.01%	2.05%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.07	0.541	0	1	0	0	2	2,194.90	677	695	TRUE	
SNU216LR_PC1_02	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	1	1	1	0.01%	2.47%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	5.92	0.342	0	0	1	0	2	3,132.14	621	646	TRUE	
SNU216LR_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	9	11	0.07%	6.03%	HDSSAPDPAPDSADEVMPEAVPEVASEPGI	K	T	95.00%	5.54	0.332	0	0	0	1	2	4,188.80	887	926	TRUE	
SNU216LR_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	9	11	0.07%	6.03%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.66	0.422	0	0	1	0	2	2,816.12	796	819	TRUE	
SNU216LR_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	9	11	0.07%	6.03%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	6.24	0.568	0	1	2	0	2	2,614.30	1454	1477	TRUE	
SNU216LR_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	9	11	0.07%	6.03%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.24	0.518	0	0	0	2	2	4,403.92	885	926	TRUE	
SNU216LR_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	9	11	0.07%	6.03%	SPPEGDTTLFLSR	R	L	95.00%	2.45	0.348	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216LR_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	9	11	0.07%	6.03%	SSSPAGETEGDREPQAR	R	P	86.30%	2.12	0.205	0	1	0	0	2	1,853.77	1712	1728	TRUE	
SNU216LR_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	9	11	0.07%	6.03%	TASPLEHILQTLFGK	K	K	95.00%	3.62	0.442	0	1	1	0	2	1,734.88	1310	1324	TRUE	
SNU216LR_PC1_02	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.17%	QIDSSEEDDDEEDYDNDKR	R	S	95.00%	3.55	0.556	0	1	0	0	2	2,476.82	212	230	TRUE	
SNU216LR_PC1_02	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.17%	RQIDSSEEDDDEEDYDNDKR	K	S	95.00%	4.41	0.566	0	0	1	0	2	2,632.92	211	230	TRUE	
SNU216LR_PC1_02	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	2	4	4	0.02%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	2.53	0.282	0	1	1	0	2	2,449.02	958	978	TRUE	
SNU216LR_PC1_02	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	2	4	4	0.02%	2.06%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	4.13	0.388	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216LR_PC1_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	2	2	0.01%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	4.54	0.491	0	0	1	0	2	2,298.08	9	31	TRUE	
SNU216LR_PC1_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	2	2	0.01%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.72	0.391	0	0	1	0	2	2,541.20	7	31	TRUE	
SNU216LR_PC1_02	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	99.80%	2	2	2	0.01%	2.18%	HSSPTEERDEPAYPR	R	G	95.00%	2.73	0.238	0	0	1	0	2	1,850.77	1200	1214	TRUE	
SNU216LR_PC1_02	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	99.80%	2	2	2	0.01%	2.18%	NLSDIGWPVFEIPSPRPSK	K	G	95.00%	3.12	0.377	0	0	1	0	2	2,219.09	418	436	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	5.1	0.46	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	4.94	0.436	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	VKVEPADSVESSPPSITHSPQNELK	K	G	95.00%	5.37	0.552	0	0	1	0	2	2,755.32	408	432	TRUE	
SNU216LR_PC1_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	99.80%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.85	0.362	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	DASLHGLSQYNSL	R	-	95.00%	2.85	0.441	0	1	0	0	2	1,484.64	1593	1605	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	DHAPSIPTSPFGDSLESSTELR	R	R	95.00%	3.47	0.463	0	0	1	0	2	2,423.08	249	270	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	EDVTPPLSPDDLK	K	Y	95.00%	2.59	0.288	0	2	0	0	2	1,585.64	1049	1061	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	EGPVGGESDSEEMFEK	R	T	95.00%	2.74	0.411	0	1	0	0	2	1,806.68	404	419	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	GLPSTSSKEDVTPPLSPDDLK	K	Y	95.00%	2.86	0.276	0	1	0	0	2	2,343.04	1041	1061	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	IGDGLSPLPHLTESSSFLSTVTSVSR	K	D	95.00%	3.62	0.133	0	0	1	0	2	2,767.36	531	556	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	REGPVGGESDSEEMFEK	K	T	95.00%	3.52	0.324	0	2	1	0	2	1,962.78	403	419	TRUE	
SNU216LR_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	11	0.07%	7.54%	SLYGDVDSPLPTGEAGGPPSTR	K	E	95.00%	4.83	0.547	0	1	0	0	2	2,253.01	177	198	TRUE	
SNU216LR_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	5	5	6	0.04%	7.93%	ATDEDMQSLASLMSMK	K	Q	95.00%	2.97	0.254	0	1	0	0	2	1,837.74	164	179	TRUE	
SNU216LR_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	5	5	6	0.04%	7.93%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	2.88	0.479	0	2	0	0	2	1,927.99	389	406	TRUE	
SNU216LR_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	5	5	6	0.04%	7.93%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	6.87	0.542	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216LR_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	5	5	6	0.04%	7.93%	KPSEDEVLNK	R	G	93.00%	2.72	0.117	0	1	0	0	2	1,238.57	985	994	TRUE	
SNU216LR_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	5	5	6	0.04%	7.93%	STPPPNNLVNPVQELETER	K	R	95.00%	3.28	0.381	0	1	0	0	2	2,214.04	342	360	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	8.28%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	3.71	0.273	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	8.28%	EVDGLLTSEPMGSPVSSK	K	T	92.30%	2.96	0.107	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	8.28%	GPPQSPVFEGVYNNSR	K	M	95.00%	3.17	0.572	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	8.28%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.69	0.406	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	8.28%	QGSGRESPSLASR	R	E	91.80%	2.32	0.154	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	8.28%	TLSSPSNRPSGETSVPPPPAVGR	K	M	81.70%	2.99	0.141	0	0	1	0	2	2,370.15	421	443	TRUE	
SNU216LR_PC1_02	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	RKTPEASAIGLHQDPELGDAALR	R	S	95.00%	4.99	0.408	0	0	0	1	2	2,525.25	729	751	TRUE	
SNU216LR_PC1_02	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	SLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	5.15	0.582	0	0	1	0	2	2,577.24	647	671	TRUE	
SNU216LR_PC1_02	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	1	1	1	0.01%	0.99%	EKQEEEVDYESEEEEER	K	E	95.00%	4.68	0.503	0	1	0	0	2	2,265.86	1419	1435	TRUE	
SNU216LR_PC1_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.86	0.614	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC1_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	4.8	0.567	0	1	0	0	2	2,778.97	238	262	TRUE	
SNU216LR_PC1_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.76	0.465	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	139,001.10	99.80%	2	2	2	0.01%	1.13%	KGSLAALYDLAVLK	R	K	95.00%	4.43	0.305	0	1	0	0	2	1,541.83	296	309	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	139,001.10	99.80%	2	2	2	0.01%	1.13%	KGSLAALYDLAVLKK	R	K	95.00%	2.98	0.342	0	0	1	0	2	1,669.93	296	310	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.15	0.4	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.36	0.551	0	3	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.16	0.476	0	0	1	1	2	2,726.13	369	391	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	KAEGEPQEESPLK	K	S	95.00%	3.24	0.271	0	1	1	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	KAEGEPQEESPLKSK	K	S	95.00%	4.38	0.377	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	KETQSPEQVKSEK	K	L	95.00%	3.54	0.323	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	LKDLFDYSPPLHK	K	N	95.00%	3.27	0.318	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	NTPSQHSHSIQHSPER	K	S	95.00%	3.52	0.388	0	1	1	0	2	1,921.83	256	271	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	3.57	0.57	0	2	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.77	0.247	0	0	1	1	2	2,903.23	181	204	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	SQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	2.61	0.213	0	0	1	0	2	2,688.10	183	204	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	4.11	0.476	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	20	25	0.15%	16.80%	YSPSQNSPIHHIPSR	R	R	95.00%	3.23	0.347	0	0	3	0	2	1,799.82	284	298	TRUE	
SNU216LR_PC1_02	KIBRA protein	IPI00217340	125,303.90	98.50%	1	1	1	0.01%	1.80%	VDKETNTETPAPSPTVVRPK	K	D	95.00%	2.96	0.228	0	0	1	0	2	2,246.11	887	906	TRUE	
SNU216LR_PC1_02	Kappa B and V(D)J recombination signal sequenci	IPI00328089	259,337.60	99.80%	1	1	1	0.01%	0.79%	SASEQSPNVSHSAHMTETR	R	S	95.00%	4.17	0.415	0	0	1	0	2	2,135.88	991	1009	TRUE	
SNU216LR_PC1_02	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	3	3	3	0.02%	3.03%	EHSNPSPSQDTDGTK	R	A	95.00%	3.59	0.394	0	1	0	0	2	1,679.65	95	109	TRUE	
SNU216LR_PC1_02	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	3	3	3	0.02%	3.03%	EVSPAPAVAGQSK	R	G	95.00%	2.17	0.319	0	1	0	0	2	1,320.62	1362	1374	TRUE	
SNU216LR_PC1_02	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	3	3	3	0.02%	3.03%	EYGSTSSIDVQGMPEQSFFDILNEFR	R	S	95.00%	5.53	0.0113	0	1	0	0	2	3,076.33	201	226	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	8	8	0.05%	6.15%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.89	0.565	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	8	8	0.05%	6.15%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	K	95.00%	4.2	0.413	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216LR_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	8	8	0.05%	6.15%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.85	0.613	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	8	8	0.05%	6.15%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	5.99	0.436	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216LR_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	8	8	0.05%	6.15%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	4.61	0.411	0	0	1	0	2	2,174.04	104	122	TRUE	
SNU216LR_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	6	8	8	0.05%	6.15%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.39	0.467	0	1	1	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC1_02	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	3	5	5	0.03%	2.31%	ADAPDAGAQSDSELPSYHQNDVSLDR	R	G	95.00%	5.33	0.49	0	1	1	0	2	2,838.19	1289	1314	TRUE	
SNU216LR_PC1_02	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	3	5	5	0.03%	2.31%	GYTSDSEVYTDHGR	R	P	95.00%	2.48	0.35	0	1	0	0	2	1,666.64	1315	1328	TRUE	
SNU216LR_PC1_02	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	3	5	5	0.03%	2.31%	GYTSDSEVYTDHGRPGK	R	I	95.00%	2.67	0.224	0	1	0	1	2	1,948.81	1315	1331	TRUE	
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	3	3	0.02%	1.31%	DEYQTSPPKVVEIGHQR	R	Q	95.00%	3.22	0.386	0	0	1	0	2	2,062.96	436	452	TRUE	
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	3	3	0.02%	1.31%	LRESPGSEQTPFMTAPEGK	K	G	95.00%	4.36	0.509	0	0	1	0	2	2,141.96	1763	1781	TRUE	
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	3	3	0.02%	1.31%	QGSFSEDVISHK	R	G	95.00%	2.71	0.333	0	1	1	0	2	1,413.60	2360	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	3	3	0.02%	1.31%	QKTPEGLQESANVK	R	I	95.00%	2.12	0.26	0	1	0	0	2	1,608.76	453	466	TRUE	
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	3	3	0.02%	1.31%	RQGSFSEDVISHK	K	G	95.00%	2.74	0.298	0	0	1	0	2	1,569.71	2359	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	3	3	0.02%	1.31%	SMDAMSSPTK	K	T	95.00%	2.62	0.488	1	1	0	0	2	1,134.42	2925	2934	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	3	3	3	0.02%	1.31%	SMDAMSSPTKTETVK	K	A	95.00%	4.01	0.0659	0	2	0	0	2	1,692.72	2925	2939	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_02	Phosphatidylinositol-4-phosphate 3-kinase C2 do	IPI00002580	190,744.00	99.80%	1	1	1	0.01%	1.01%	TRNPTFNEMLVYSGYSK	K	E	95.00%	2.43	0.241	0	0	1	0	2	2,182.89	1618	1634	TRUE	
SNU216LR_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.21%	HKYVSGSSPDLVTR	R	K	95.00%	2.8	0.268	0	0	1	0	2	1,625.77	587	600	TRUE	
SNU216LR_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.21%	NLNIINTHAYNQPEDLVYSQPEMR	R	E	95.00%	5.31	0.498	0	0	1	0	2	2,939.34	468	491	TRUE	
SNU216LR_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.21%	RHSLEVMNSMVR	K	G	95.00%	3.02	0.216	0	0	1	0	2	1,538.70	640	651	TRUE	
SNU216LR_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	4	4	4	0.02%	4.21%	YVSGSSPDLVTR	K	K	88.30%	1.91	0.202	0	1	0	0	2	1,360.61	589	600	TRUE	
SNU216LR_PC1_02	CAD protein	IPI00301263	242,982.50	100.00%	3	6	6	0.04%	2.43%	IHRASDPGLPAEEPK	R	E	95.00%	3.17	0.283	0	0	1	0	2	1,696.81	1855	1869	TRUE	
SNU216LR_PC1_02	CAD protein	IPI00301263	242,982.50	100.00%	3	6	6	0.04%	2.43%	IHRASDPGLPAEEPKEK	R	S	95.00%	3.82	0.338	0	0	1	1	2	1,953.94	1855	1871	TRUE	
SNU216LR_PC1_02	CAD protein	IPI00301263	242,982.50	100.00%	3	6	6	0.04%	2.43%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	5.2	0.425	0	0	1	1	2	4,052.11	1898	1934	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	5.9	0.568	0	0	1	0	2	3,065.37	341	365	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	ESEKQQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.35	0.444	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.56	0.373	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	3.46	0.377	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	SLSPGKENVSALDMEK	K	E	95.00%	3.43	0.46	0	1	1	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	3.89	0.376	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216LR_PC1_02	Mediator of RNA polymerase II transcription subu	IPI00004068,IPI00640149,IP	243,081.20	99.80%	2	2	2	0.01%	1.58%	GDLAFGAPGPRPPSPFDDPADDPEHK	R	E	95.00%	3.2	0.326	0	0	1	0	2	2,782.22	622	647	TRUE	
SNU216LR_PC1_02	Mediator of RNA polymerase II transcription subu	IPI00004068,IPI00640149,IP	243,081.20	99.80%	2	2	2	0.01%	1.58%	GDLAFGAPGPRPPSPFDDPADDPEHKEAEG	R	L	95.00%	4.25	0.327	0	0	0	1	2	3,644.58	622	656	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	5.09%	EGSPIPHDPEFGSK	R	L	95.00%	2.58	0.413	0	0	1	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	5.09%	SAPASPTHPGLMSPR	R	S	95.00%	2.08	0.286	0	1	0	0	2	1,585.72	253	267	TRUE	
SNU216LR_PC1_02	374 kDa protein	IPI00470478,IPI00642126	373,852.30	99.80%	1	1	1	0.01%	0.49%	DFATPSLHTSDQSPGK	R	H	95.00%	2.81	0.345	0	1	0	0	2	1,767.76	334	349	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	99.30%	2	2	2	0.01%	3.32%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	4.26	0.215	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	99.30%	2	2	2	0.01%	3.32%	HRHSPTGPPGFPR	R	D	85.80%	2.22	0.231	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	1	1	1	0.01%	15.50%	DLLHPSPEEEKRK	K	H	95.00%	3.33	0.164	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.55	0.259	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	DNSPPPAFKPEPPK	R	A	95.00%	3.17	0.509	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	GRSIDQDYER	R	A	95.00%	2.59	0.16	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	GSYGSDAEEEEYR	R	Q	95.00%	2.73	0.488	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.18	0.375	0	1	1	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	HQYSDYDYHSSSEKLK	R	E	95.00%	3.28	0.308	0	0	1	0	2	2,146.82	421	436	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.56	0.548	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	RHQYSDYDYHSSSEK	R	L	95.00%	2.35	0.332	0	1	0	0	2	2,061.74	420	434	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	SIDQDYER	R	A	95.00%	1.96	0.202	1	0	0	0	2	1,105.42	244	251	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	5.54	0.496	0	0	2	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	SREHPHSRSPSPEPR	R	G	95.00%	2.36	0.379	0	1	0	0	2	1,995.76	286	300	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	SRSWEDSPER	R	G	95.00%	2.48	0.228	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	SSEPVQHEESIRKPSPEPR	R	A	79.90%	2.85	0.125	0	0	1	0	2	2,269.06	952	970	TRUE	
SNU216LR_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	19	0.12%	13.50%	SWEDSPER	R	G	95.00%	1.63	0.201	1	0	0	0	2	1,085.39	170	177	TRUE	
SNU216LR_PC1_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	4	4	0.02%	4.44%	ESVSPEDSEK	K	K	95.00%	1.95	0.247	0	1	0	0	2	1,186.45	365	374	TRUE	
SNU216LR_PC1_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	4	4	0.02%	4.44%	IIYDSDSESEETLQVK	R	N	95.00%	4.13	0.108	0	1	0	0	2	1,935.85	65	80	TRUE	
SNU216LR_PC1_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	4	4	0.02%	4.44%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	4.49	0.424	0	0	1	1	2	2,798.45	152	176	TRUE	
SNU216LR_PC1_02	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	98.60%	1	1	1	0.01%	1.74%	ALVVPEPEPDSDSNQER	K	K	95.00%	3.69	0.551	0	1	0	0	2	1,961.85	126	142	TRUE	
SNU216LR_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.80%	2	2	2	0.01%	2.64%	HLYISSSNPDLITR	R	R	95.00%	2.24	0.348	0	1	0	0	2	1,695.81	584	597	TRUE	
SNU216LR_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.80%	2	2	2	0.01%	2.64%	RNSIEVAGLSHGLEGLR	K	L	95.00%	5.1	0.447	0	0	1	0	2	1,887.94	635	651	TRUE	
SNU216LR_PC1_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bip	IPI00376976,IPI00410303	125,764.00	99.80%	2	2	3	0.02%	3.18%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	3.61	0.192	0	0	2	0	2	2,396.04	714	733	TRUE	
SNU216LR_PC1_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bip	IPI00376976,IPI00410303	125,764.00	99.80%	2	2	3	0.02%	3.18%	TLSDPPSPLPHGPPNK	R	G	95.00%	3.14	0.348	0	1	0	0	2	1,813.79	840	855	TRUE	
SNU216LR_PC1_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	3	0.02%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	4.31	0.351	0	1	1	0	2	1,673.69	221	235	TRUE	
SNU216LR_PC1_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	3	0.02%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	2.74	0.222	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC1_02	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	100.00%	3	3	3	0.02%	3.05%	AVPVESPVQKV	K	-	95.00%	1.95	0.33	0	1	0	0	2	1,232.63	422	432	TRUE	
SNU216LR_PC1_02	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	100.00%	3	3	3	0.02%	3.05%	KAVPVESPVQK	K	-	95.00%	2.05	0.292	0	1	0	0	2	1,261.66	421	431	TRUE	
SNU216LR_PC1_02	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	100.00%	3	3	3	0.02%	3.05%	KAVPVESPVQKV	K	-	95.00%	2.84	0.466	0	1	0	0	2	1,360.72	421	432	TRUE	
SNU216LR_PC1_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	2	4	5	0.03%	1.96%	GDLSDVEEEEEEEMDVDEATGAVK	R	K	95.00%	5.06	0.429	0	2	1	0	2	2,705.05	829	852	TRUE	
SNU216LR_PC1_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	2	4	5	0.03%	1.96%	GDLSDVEEEEEEEMDVDEATGAVKK	R	H	95.00%	4.74	0.568	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216LR_PC1_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.00%	1	1	1	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	4.2	0.324	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	8	10	0.06%	4.70%	DRPVSQPSLVGSK	K	E	88.70%	2.23	0.198	0	1	0	0	2	1,449.71	163	175	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	8	10	0.06%	4.70%	DVDDGSGSPHSPHQLSSK	R	S	95.00%	2.22	0.327	0	2	1	0	2	2,089.73	2022	2039	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	8	10	0.06%	4.70%	EKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	4.85	0.34	0	0	1	0	2	2,774.27	1997	2021	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	8	10	0.06%	4.70%	KEKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	4.95	0.444	0	0	1	1	2	2,902.36	1996	2021	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	8	10	0.06%	4.70%	SGSGGGSAKEPQEER	R	S	95.00%	3.2	0.465	0	2	0	0	2	1,555.64	183	197	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	6	8	10	0.06%	4.70%	VFPSEITDTVAASTAQSPGMNLSHSASSLSL	K	A	95.00%	5.24	0.0583	0	0	0	1	2	4,301.05	1273	1312	TRUE	
SNU216LR_PC1_02	Band 4.1-like protein 2	IPI00015973	112,587.80	100.00%	3	3	3	0.02%	7.06%	EVAENQQNQSSDPEEEKGSQPPPAAESQS	K	R	95.00%	4.59	0.513	0	0	1	0	2	3,533.53	29	60	TRUE	
SNU216LR_PC1_02	Band 4.1-like protein 2	IPI00015973	112,587.80	100.00%	3	3	3	0.02%	7.06%	EVRSPTKAPHLQLIEGK	R	K	95.00%	2.55	0.282	0	0	0	1	2	1,983.04	595	611	TRUE	
SNU216LR_PC1_02	Band 4.1-like protein 2	IPI00015973	112,587.80	100.00%	3	3	3	0.02%	7.06%	ITPLSLQTQGSSHETLNIVEEK	R	K	95.00%	3.19	0.182	0	0	1	0	2	2,504.23	672	693	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	ASGSENEGDYNPGRK	K	T	95.00%	2.53	0.286	0	1	0	0	2	1,660.66	1549	1563	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	ASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	4.29	0.299	0	0	1	0	2	3,210.37	1399	1427	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	FDSNEEDSASVFSPSFGLK	K	Q	95.00%	4.08	0.576	0	1	1	0	2	2,142.89	1464	1482	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	KASGSENEGDYNPGR	R	K	95.00%	2.72	0.394	0	1	0	0	2	1,740.63	1548	1562	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	KASGSENEGDYNPGRK	R	T	95.00%	3.64	0.38	0	1	1	0	2	1,788.76	1548	1563	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.78	0.492	0	0	2	0	2	3,017.35	1574	1599	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	RKASGSENEGDYNPGR	K	K	92.40%	2.41	0.194	0	1	0	0	2	1,896.73	1547	1562	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	5.03	0.221	0	1	0	0	2	2,875.18	1457	1482	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	VKASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	6.88	0.498	0	0	3	0	2	3,437.53	1397	1427	TRUE	
SNU216LR_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	10	12	15	0.09%	7.22%	VVEAVNSDSDSEFGIPK	K	K	95.00%	3.09	0.369	0	1	0	0	2	1,872.83	1516	1532	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	7	11	19	0.12%	5.66%	KQSFDDNDSEELEDKDSK	K	S	95.00%	4.94	0.388	0	2	0	0	2	2,208.88	105	122	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	7	11	19	0.12%	5.66%	KWDGSEEDEDNSKK	K	I	95.00%	3.11	0.421	0	2	1	0	2	1,746.69	160	173	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	7	11	19	0.12%	5.66%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.88	0.478	0	2	2	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	7	11	19	0.12%	5.66%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.87	0.386	0	2	1	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	7	11	19	0.12%	5.66%	VEMYSGSDDDDDFNK	K	L	95.00%	3.34	0.499	0	1	0	0	2	1,816.63	131	145	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	7	11	19	0.12%	5.66%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.9	0.429	0	3	2	0	2	2,154.86	131	148	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	7	11	19	0.12%	5.66%	WDGSEEDEDNSKK	K	I	95.00%	1.99	0.228	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC1_02	Insulin receptor substrate 1	IPI00019471	131,591.20	99.50%	1	1	1	0.01%	2.09%	ASSDGEGTMSRPASVDGSPVSPSTNR	R	T	95.00%	2.72	0.242	0	0	1	0	2	2,629.12	328	353	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	100.00%	3	5	5	0.03%	1.49%	EQAPDISPK	R	S	95.00%	2.32	0.228	1	1	0	0	2	1,064.47	941	949	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	100.00%	3	5	5	0.03%	1.49%	GQVIIISDSDDDDDER	R	I	95.00%	3.07	0.282	0	1	0	0	2	1,871.75	1011	1026	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	100.00%	3	5	5	0.03%	1.49%	KSSPFKDLMTVPESR	K	D	95.00%	3.83	0.388	0	1	1	0	2	1,801.86	909	923	TRUE	
SNU216LR_PC1_02	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	99.80%	2	2	2	0.01%	1.37%	GSEGYLAATYPTVGQTSPR	K	A	95.00%	4.01	0.0285	0	1	0	0	2	2,034.92	2478	2496	TRUE	
SNU216LR_PC1_02	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	99.80%	2	2	2	0.01%	1.37%	KVSVSESNVLLDEEVLTDPK	R	I	95.00%	3.92	0.397	0	0	1	0	2	2,281.12	2574	2593	TRUE	
SNU216LR_PC1_02	146 kDa protein	IPI00215638,IPI00742905	140,884.40	100.00%	1	2	2	0.01%	3.35%	SEEVPAFGVASPPPLTDTPDTTANAEGDLPT	K	A	95.00%	5.33	0.129	0	0	1	1	2	4,489.15	77	120	TRUE	
SNU216LR_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	6.39%	AQQELVPPQQQASPPQLPK	R	A	95.00%	2.91	0.168	0	0	1	0	2	2,164.08	879	897	TRUE	
SNU216LR_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	6.39%	GSVSQPSTPSPPKPTGIFQTSANSSFEPVK	R	S	82.90%	4.92	0.0508	0	0	1	0	2	3,139.50	408	437	TRUE	
SNU216LR_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	6.39%	LLPSAPQTLPDGPLASPAR	R	V	95.00%	3.49	0.52	0	1	0	0	2	1,981.02	1771	1789	TRUE	
SNU216LR_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	6.39%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	5.38	0.0115	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216LR_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	6.39%	SNFSSGPGFPEYGYPADTVWPAMEQVSSRI	R	F	90.60%	6.53	0.0007	0	0	1	0	2	3,882.70	1232	1266	TRUE	
SNU216LR_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	6.39%	SSLSSHSHQSQIYR	R	S	89.70%	2.22	0.236	0	1	0	0	2	1,696.74	1190	1203	TRUE	
SNU216LR_PC1_02	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	5	0.03%	3.48%	KVSLVLEK	R	M	95.00%	2.57	0.265	0	1	0	0	2	995.5538	336	343	TRUE	
SNU216LR_PC1_02	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	5	0.03%	3.48%	QPAQSQNLSPLSGFSR	K	S	95.00%	3.09	0.405	0	1	0	0	2	1,796.83	250	265	TRUE	
SNU216LR_PC1_02	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	5	0.03%	3.48%	SHSQASLAGPGPVDPSNR	R	S	95.00%	4.76	0.489	0	2	1	0	2	1,856.83	135	152	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	1	1	1	0.01%	2.78%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.47	0.476	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC1_02	PREDICTED: mitogen-activated protein kinase kin	IPI00012318	185,158.40	99.80%	2	2	2	0.01%	1.83%	LSASSEDISER	K	L	95.00%	2.07	0.394	0	1	0	0	2	1,273.53	1106	1116	TRUE	
SNU216LR_PC1_02	PREDICTED: mitogen-activated protein kinase kin	IPI00012318	185,158.40	99.80%	2	2	2	0.01%	1.83%	SHDFYSHELSSPVDSPSSLR	R	A	95.00%	3.32	0.277	0	0	1	0	2	2,327.00	683	702	TRUE	
SNU216LR_PC1_02	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	1	1	1	0.01%	1.33%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.82	0.153	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	IKSSPSPEVVKPK	K	I	95.00%	2.9	0.282	0	1	0	0	2	1,555.75	636	648	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	KGSDSSIPDEEK	R	M	95.00%	2.83	0.244	0	1	0	0	2	1,371.57	315	326	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	LHKRSPPPETIK	K	S	94.50%	2.46	0.17	0	0	1	0	2	1,482.78	613	624	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	LTPPESQSPLHWLADLAEQK	K	A	85.00%	2.44	0.182	0	0	1	0	2	2,340.13	2000	2019	TRUE	
SNU216LR_PC1_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	3	3	3	0.02%	4.99%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.05	0.1	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC1_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	3	3	3	0.02%	4.99%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	4.01	0.442	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216LR_PC1_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	3	3	3	0.02%	4.99%	QVLQSTQSPR	R	T	95.00%	2.82	0.321	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	6	6	0.04%	10.10%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.81	0.453	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	6	6	0.04%	10.10%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.31	0.454	0	0	1	0	2	2,837.11	672	695	TRUE	
SNU216LR_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	6	6	0.04%	10.10%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.6	0.328	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	6	6	0.04%	10.10%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	4.89	0.36	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216LR_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	6	6	0.04%	10.10%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.72	0.286	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	6	6	6	0.04%	5.94%	ANQISPSNSSLK	K	N	95.00%	2.4	0.324	0	1	0	0	2	1,325.61	84	95	TRUE	
SNU216LR_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	6	6	6	0.04%	5.94%	EAPGSPPLSPR	R	G	95.00%	2.21	0.353	0	1	0	0	2	1,187.55	17	27	TRUE	
SNU216LR_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	6	6	6	0.04%	5.94%	GLLSPPMGQSGLR	R	E	95.00%	1.86	0.272	0	1	0	0	2	1,392.67	747	759	TRUE	
SNU216LR_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	6	6	6	0.04%	5.94%	RPSDLTISINQMGSPGMGHLKSPTLSQVHS	R	S	88.50%	6.7	-0.0118	0	0	0	1	2	4,443.16	913	953	TRUE	
SNU216LR_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	6	6	6	0.04%	5.94%	SPTLSQVHSPLVTSPSANLK	K	S	95.00%	3.38	0.25	0	0	1	0	2	2,143.08	934	953	TRUE	
SNU216LR_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	6	6	6	0.04%	5.94%	TAMPSPGVSQNK	K	Q	95.00%	2.12	0.234	0	1	0	0	2	1,296.57	1013	1024	TRUE	
SNU216LR_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	11	0.07%	14.50%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.78	0.499	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	11	0.07%	14.50%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.94	0.564	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	11	0.07%	14.50%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.13	0.486	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216LR_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	11	0.07%	14.50%	LRSPPEALVQGR	R	Y	95.00%	2.92	0.289	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	11	0.07%	14.50%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.81	0.368	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	11	0.07%	14.50%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.34	0.489	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	11	0.07%	14.50%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.94	0.403	0	0	2	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.80%	2	2	2	0.01%	2.71%	APSPPLSQVFQTR	R	A	95.00%	2.23	0.265	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216LR_PC1_02	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.80%	2	2	2	0.01%	2.71%	SSPVESLKK	R	E	95.00%	1.64	0.314	0	1	0	0	2	1,054.52	77	85	TRUE	
SNU216LR_PC1_02	pre-mRNA cleavage complex II protein Pcf11	IPI00016387	173,051.00	99.70%	1	1	1	0.01%	0.51%	SPIIHSPK	R	R	93.60%	1.93	0.187	0	1	0	0	2	958.4759	489	496	TRUE	
SNU216LR_PC1_02	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	5	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.17	0.603	0	0	2	0	2	3,332.21	541	570	TRUE	
SNU216LR_PC1_02	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	5	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	5.06	0.322	0	0	1	2	2	4,263.69	541	580	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	ALQLSNSPGASSAFLK	K	A	95.00%	3.7	0.326	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	DEDEGIPSENEEEKK	R	M	95.00%	2.33	0.263	0	1	0	0	2	1,827.72	2342	2356	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	ENALSSGTLQEEQRTPPPGQDTQQFHEK	K	S	95.00%	2.88	0.294	0	0	0	1	2	3,232.45	939	966	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	FLSHSTDSLNK	K	I	95.00%	2.5	0.154	0	1	0	0	2	1,328.59	1929	1939	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.72	0.22	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	RAETFGGFDSHQMNASK	R	G	95.00%	3.1	0.231	0	0	1	0	2	1,962.82	2468	2484	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	H	95.00%	5.07	0.507	0	0	1	0	2	3,230.52	1604	1635	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	5.06	0.398	0	0	0	1	2	4,169.94	1604	1643	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	9	9	9	0.06%	5.54%	SGSLDSELSVSPK	K	R	95.00%	2.78	0.368	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216LR_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	4	7	8	0.05%	7.90%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.18	0.323	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	4	7	8	0.05%	7.90%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.79	0.382	0	1	1	0	2	2,624.06	152	174	TRUE	
SNU216LR_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	4	7	8	0.05%	7.90%	SGDETPGSEVPGDK	R	A	95.00%	2.31	0.252	0	2	0	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	4	7	8	0.05%	7.90%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.06	0.503	0	0	1	1	2	4,198.92	226	261	TRUE	
SNU216LR_PC1_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.86	0.333	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216LR_PC1_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	4.18	0.486	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216LR_PC1_02	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	3.69	0.469	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216LR_PC1_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	2	2	0.01%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	6.62	0.533	0	0	1	0	2	3,538.48	736	766	TRUE	
SNU216LR_PC1_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	2	2	0.01%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	4.31	0.461	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	AESGDSLGSEDRDLLYSIDAYR	R	S	95.00%	3.01	0.357	0	1	1	0	2	2,512.09	656	677	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	3.85	0.508	0	1	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	ATSPVKSTTSITDAK	K	S	82.40%	3.43	0.0049	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	DKSTTPGGTGIKPFLER	K	F	95.00%	3.79	0.343	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	EIEMSVDDDDINSSK	R	V	95.00%	2.66	0.405	0	1	0	0	2	1,776.69	549	563	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	NKASPQSEFMPSK	K	G	95.00%	3.49	0.36	0	1	1	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	QPLSEASNQQPLSGGEEK	R	S	94.60%	2.9	0.156	0	1	0	0	2	1,978.88	42	59	TRUE	
SNU216LR_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	11	11	0.07%	10.50%	TPISPLKTGVSKPIVK	K	S	95.00%	3.08	0.324	0	0	1	0	2	1,745.00	320	335	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	99.80%	1	2	2	0.01%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.24	0.518	0	1	1	0	2	2,727.04	12	35	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	3	3	3	0.02%	3.25%	EKTESELKFEEDER	R	W	95.00%	2.64	0.255	0	0	1	0	2	1,848.79	272	285	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	3	3	3	0.02%	3.25%	KSPESEILSLHLLVEELR	R	L	95.00%	4.84	0.456	0	0	1	0	2	2,172.13	713	730	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	3	3	3	0.02%	3.25%	RDSDSFLNIFPEK	R	Q	95.00%	3.17	0.265	0	1	0	0	2	1,647.74	759	771	TRUE	
SNU216LR_PC1_02	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	99.90%	1	1	3	0.02%	1.19%	DASDGEDEKPPLPPR	R	S	95.00%	2.85	0.333	0	3	0	0	2	1,702.73	130	144	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	DAELQDQEFGKRDSLGTYSSR	R	D	95.00%	3.92	0.198	0	1	0	0	2	2,482.09	859	879	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.3	0.298	0	0	0	1	2	2,929.37	1015	1043	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	DSLGTYSSR	R	D	84.50%	1.81	0.119	1	0	0	0	2	1,065.42	871	879	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	DVSLGDWEFGKRDSLGAYASQDANEQGQ	R	R	95.00%	6.39	0.552	0	0	1	0	2	3,536.56	880	911	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	FSEGVLQSPSQDQEK	R	L	95.00%	3.12	0.237	0	1	0	0	2	1,758.76	428	442	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.04	0.436	0	2	1	0	2	2,090.97	1023	1043	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	KEVLASPDR	R	L	95.00%	2.19	0.229	0	1	0	0	2	1,094.52	173	181	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	LDSPPPSPITEASEAAEAAEAGNLAVSSR	R	E	95.00%	4.9	0.412	0	0	1	0	2	2,917.35	492	520	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	NRSAEEGELAESK	R	S	95.00%	2.63	0.302	0	0	1	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	PAVEASTGGEATQETGKEEAGKEEPPPLTPP	R	C	95.00%	4.33	0.359	0	0	1	1	2	3,411.60	103	135	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	5.55	0.566	0	1	1	0	2	2,302.99	891	911	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	7.05	0.43	0	1	2	0	2	2,459.10	891	912	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	7.87	0.589	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	RPSQGPPARSPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.04	0.468	0	0	1	0	2	3,477.58	1543	1572	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	SAEEGELAESK	R	S	95.00%	2.13	0.373	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	SFGTRPLSSGFSPEEAQQQDEEFEK	R	K	83.10%	4.88	0.0402	0	0	1	0	2	2,910.25	976	1000	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	4.12	0.513	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	SQEADVQDWEFR	R	K	95.00%	2.98	0.43	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	SSGSEGSSPNWLQALK	K	L	95.00%	2.56	0.308	0	1	0	0	2	1,727.76	1708	1723	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	VPSSDEEVVEEPQSR	R	R	95.00%	4.61	0.529	0	2	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	VVGKPAQLGTQRSQEADVQDWEFR	R	K	95.00%	3.16	0.456	0	0	1	0	2	2,824.34	824	847	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	WLDDLLASPPPSGGGAR	R	R	95.00%	2.47	0.231	0	1	0	0	2	1,788.83	684	700	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	WSDQGPAQTSR	R	R	95.00%	2.14	0.425	0	1	0	0	2	1,312.53	1532	1542	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.29	0.518	0	1	1	0	2	2,166.01	590	608	TRUE	
SNU216LR_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	25	32	35	0.22%	22.30%	YSSQDADEQDWEFQKR	R	D	95.00%	4.7	0.594	0	1	1	0	2	2,111.83	918	933	TRUE	
SNU216LR_PC1_02	Isoform 1 of Transcription elongation factor SPT5	IPI00298058,IPI00479229,IP	120,999.90	99.80%	1	1	1	0.01%	3.40%	SAAGSEKEEEPEDEEEEEEEEEYDEEEEEEDD	R	K	95.00%	7.12	0.662	0	0	1	0	2	4,494.64	32	68	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGR	K	R	95.00%	2.36	0.293	0	0	1	0	2	1,631.76	1881	1894	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGRR	K	K	95.00%	2.56	0.247	0	0	1	0	2	1,787.86	1881	1895	TRUE	
SNU216LR_PC1_02	ABT1-associated protein	IPI00024167	98,800.70	99.80%	2	2	2	0.01%	3.17%	DGTSPEEEIEIER	K	Q	95.00%	2.39	0.439	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216LR_PC1_02	ABT1-associated protein	IPI00024167	98,800.70	99.80%	2	2	2	0.01%	3.17%	TLDSGTSEIVKSPR	R	I	95.00%	3.17	0.279	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216LR_PC1_02	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	2	2	2	0.01%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENRSVSGI	R	V	94.10%	5.6	0.0391	0	0	0	1	2	4,396.09	1141	1179	TRUE	
SNU216LR_PC1_02	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	2	2	2	0.01%	1.94%	SVSGFLHFDTATK	R	V	95.00%	2.28	0.391	0	1	0	0	2	1,489.67	1167	1179	TRUE	
SNU216LR_PC1_02	ankyrin repeat domain protein 17 isoform a	IPI00745557	275,075.90	99.80%	2	2	2	0.01%	2.03%	EHYPVSSPSSPSPPAQPGGVSR	K	N	95.00%	4.53	0.0192	0	0	1	0	2	2,380.00	2042	2063	TRUE	
SNU216LR_PC1_02	ankyrin repeat domain protein 17 isoform a	IPI00745557	275,075.90	99.80%	2	2	2	0.01%	2.03%	SSSHLPANSQDVQGYITNQSPESIVEEAQGI	K	L	95.00%	6.51	0.592	0	0	1	0	2	3,380.53	784	814	TRUE	
SNU216LR_PC1_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	98.80%	1	1	1	0.01%	11.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.39	0.498	0	0	1	0	2	3,657.52	143	174	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	AKDDDDSDIPTAQR	K	K	95.00%	3.27	0.347	0	1	0	0	2	1,626.66	473	486	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	ATTPASTANSDVATIPTDTPLKEENEGFVK	K	V	95.00%	6.73	0.0107	0	0	1	0	2	3,184.49	260	289	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	4.9	0.539	0	1	2	0	2	2,585.34	199	222	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	GGETPGSEQWK	K	F	95.00%	2.48	0.315	0	1	0	0	2	1,255.50	223	233	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	GSSTPTKGIENK	K	A	90.00%	2.2	0.201	0	1	0	0	2	1,298.60	348	359	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	LHQLSGSDQLESTAHSR	K	I	95.00%	5.08	0.467	0	1	2	0	2	1,945.88	179	195	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	NVSTGSAENEEKSEVQAIIESTPELDMDKDL	R	G	95.00%	7.42	0.532	0	0	1	1	2	3,893.75	313	347	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	SASQSSLDKLDQELK	R	E	95.00%	3.86	0.4	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	SASQSSLDKLDQELKEQQK	R	E	95.00%	3.74	0.393	0	1	2	0	2	2,242.06	714	732	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	SHTSLKDELSDVSQGGSK	R	A	95.00%	3.44	0.268	0	0	1	0	2	1,954.88	242	259	TRUE	
SNU216LR_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	11	15	18	0.11%	19.50%	TKLHQLSGSDQLESTAHSR	R	I	95.00%	4.35	0.418	0	0	1	0	2	2,175.02	177	195	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	2	2	2	0.01%	2.04%	SFLSEPSSPGR	R	T	95.00%	2.33	0.46	0	1	0	0	2	1,243.54	1572	1582	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	2	2	2	0.01%	2.04%	VISHDRDSPPPPPPPPPPPQPQPSLK	R	R	95.00%	6.31	0.392	0	0	1	0	2	2,854.43	131	156	TRUE	
SNU216LR_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	10	0.06%	3.42%	EEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.39	0.541	0	1	0	0	2	2,439.00	15	38	TRUE	
SNU216LR_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	10	0.06%	3.42%	REEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.17	0.535	0	0	3	0	2	2,675.07	14	38	TRUE	
SNU216LR_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	10	0.06%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.24	0.487	0	0	3	0	2	2,751.20	13	38	TRUE	
SNU216LR_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	5	10	0.06%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.21	0.496	0	2	1	0	2	1,971.82	39	56	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.68	0.243	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	EGPEPPEEVPPPTTPPVPK	K	V	95.00%	3.32	0.397	0	1	0	0	2	2,073.98	597	615	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	ERGTPPVDPK	R	L	93.90%	2.33	0.175	0	1	0	0	2	1,175.55	779	788	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	GSETGSETHESDLAPSDK	R	E	95.00%	3.11	0.282	0	1	0	0	2	1,926.76	1105	1122	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	KGNSPNSEPPTPK	K	T	95.00%	2.99	0.306	0	2	0	0	2	1,432.65	377	389	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	KQSSSEISLAVER	R	A	87.70%	2	0.19	0	1	0	0	2	1,513.73	454	466	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	LAWVGDVFTATPAEPRPLTSPLR	K	Q	95.00%	3.16	0.286	0	0	1	0	2	2,574.31	789	811	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	3.01	0.451	0	1	2	1	2	2,537.95	339	359	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	10	12	0.07%	5.47%	RKQSSSEISLAVER	R	A	95.00%	2.43	0.275	0	0	1	0	2	1,669.83	453	466	TRUE	
SNU216LR_PC1_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	4	0.02%	5.08%	KVTSPLQSPTK	R	A	95.00%	2.56	0.341	0	1	0	0	2	1,265.65	900	910	TRUE	
SNU216LR_PC1_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	4	0.02%	5.08%	SMPSMGYMTHTVSAPSLHGK	R	S	95.00%	3.18	0.339	0	0	1	0	2	2,198.94	631	650	TRUE	
SNU216LR_PC1_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	4	0.02%	5.08%	STRHPSGGSSPPPR	K	N	95.00%	2.8	0.376	0	0	1	0	2	1,499.68	476	489	TRUE	
SNU216LR_PC1_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	4	0.02%	5.08%	SVDISLGDSPRR	R	A	82.30%	2.2	0.152	0	1	0	0	2	1,381.65	604	615	TRUE	
SNU216LR_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	6	7	7	0.04%	3.52%	EVSPSDVR	R	E	95.00%	1.77	0.337	0	1	0	0	2	968.4085	1951	1958	TRUE	
SNU216LR_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	6	7	7	0.04%	3.52%	NLSFNELYPSGTLK	R	L	95.00%	2.75	0.347	0	1	0	0	2	1,662.78	1548	1561	TRUE	
SNU216LR_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	6	7	7	0.04%	3.52%	SLPSSSQLKGSPQAISR	R	A	94.00%	2.82	0.155	0	0	1	0	2	1,822.91	1159	1175	TRUE	
SNU216LR_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	6	7	7	0.04%	3.52%	STPLASPSPSPGRSPQR	R	L	95.00%	3.33	0.422	0	1	1	0	2	1,801.86	1218	1234	TRUE	
SNU216LR_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	6	7	7	0.04%	3.52%	TTSFFLNSPEK	R	E	95.00%	2.23	0.245	0	1	0	0	2	1,350.60	1285	1295	TRUE	
SNU216LR_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	6	7	7	0.04%	3.52%	TTSFFLNSPEKEHQEMDEGSQSLEK	R	L	95.00%	5.66	0.189	0	0	1	0	2	2,978.28	1285	1309	TRUE	
SNU216LR_PC1_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.00%	1	1	1	0.01%	0.05%	ELSATSSAQKITKSVK	K	A	95.00%	2.5	0.318	0	0	1	0	2	1,757.90	753	768	TRUE	
SNU216LR_PC1_02	CDNA FLJ16420 fis, clone BRACE3003053. (Fragm	IPI00442150	155,044.50	99.80%	1	1	1	0.01%	2.59%	KSESPFRETEPLVSPHQDK	K	L	95.00%	4.02	0.318	0	0	1	0	2	2,291.07	741	759	FALSE	IPI00307733
SNU216LR_PC1_02	CDNA FLJ16420 fis, clone BRACE3003053. (Fragm	IPI00442150	155,044.50	99.80%	1	1	1	0.01%	2.59%	MEIGDTLSTAEESSPPK	K	S	95.00%	3.89	0.5	0	1	0	0	2	1,871.80	118	134	TRUE	
SNU216LR_PC1_02	CDNA FLJ16420 fis, clone BRACE3003053. (Fragm	IPI00442150	155,044.50	99.80%	1	1	1	0.01%	2.59%	SESPFRETEPLVSPHQDK	K	L	95.00%	3.15	0.199	0	0	1	0	2	2,162.98	742	759	FALSE	IPI00307733
SNU216LR_PC1_02	Cleavage and polyadenylation specificity factor, 1	IPI00026219	160,885.90	100.00%	1	1	2	0.01%	2.70%	SGPEAEGLGSETSPTVDDEEEMLYGDSGSLF	R	R	95.00%	8.05	0	0	0	2	0	2	4,169.75	725	763	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	5	6	6	0.04%	3.55%	EKSESGGSEYGTGPGR	R	K	95.00%	2.61	0.358	0	1	0	0	2	1,757.64	131	146	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	5	6	6	0.04%	3.55%	ELQGDGPPSSPTNDPTVK	K	Y	95.00%	4.41	0.458	0	1	0	0	2	1,918.84	749	766	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	5	6	6	0.04%	3.55%	KNDMDEPPPLDYGSGEDDGK	K	S	95.00%	4.5	0.434	0	1	1	0	2	2,258.88	629	648	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	5	6	6	0.04%	3.55%	METEADAPSPAPSLGER	K	L	95.00%	3.28	0.381	0	1	0	0	2	1,917.73	1638	1654	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	5	6	6	0.04%	3.55%	SESGGSEYGTGPGR	K	K	95.00%	2.57	0.45	0	1	0	0	2	1,420.54	133	146	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	ASVSPMDEPVPDSESPIEK	R	V	95.00%	4.38	0.505	0	1	0	0	2	2,093.90	1249	1267	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	EVPSKEEPSPVKAEVAEK	K	Q	95.00%	3.06	0.238	0	1	1	0	2	2,032.98	480	497	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	HMDPPPAPVQDRSPSPR	K	H	95.00%	2.84	0.232	0	0	1	0	2	2,043.85	2071	2087	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	KLGDVSPTQIDVSQFGSFKEDTK	R	M	95.00%	5.83	0.544	0	0	1	0	2	2,606.24	1370	1392	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	TATAGPGTTKTTK	K	S	95.00%	2.26	0.28	0	1	0	0	2	1,474.56	2208	2220	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	TTSPPEVSGYSYEK	K	T	95.00%	2.46	0.491	0	1	0	0	2	1,624.68	1837	1850	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	VLSPLRSPPLIGSESAYESFLSADDK	K	A	95.00%	3.11	0.326	0	0	1	0	2	2,858.39	1268	1293	TRUE	
SNU216LR_PC1_02	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	8	9	9	0.06%	5.75%	VQSLEGEKLSPK	K	S	95.00%	2.91	0.322	0	1	0	0	2	1,394.69	1644	1655	TRUE	
SNU216LR_PC1_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.30%	2	3	5	0.03%	3.80%	PFSAPKPQTSPSPK	K	R	86.40%	2.43	0.125	0	1	0	0	2	1,548.75	298	311	TRUE	
SNU216LR_PC1_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.30%	2	3	5	0.03%	3.80%	SGPKPFSAPKPQTSPSPK	K	R	95.00%	4.65	0.516	0	3	1	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC1_02	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	100.00%	3	3	3	0.02%	2.87%	EKELSPPPGLPSK	R	I	95.00%	2.41	0.278	0	0	1	0	2	1,458.72	1195	1207	TRUE	
SNU216LR_PC1_02	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	100.00%	3	3	3	0.02%	2.87%	KIPEPSPVTR	K	R	95.00%	2.04	0.307	0	1	0	0	2	1,203.61	1221	1230	TRUE	
SNU216LR_PC1_02	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	100.00%	3	3	3	0.02%	2.87%	KLSSSDAPAQDTGSSAAAVETDASR	R	T	95.00%	5.95	0.0495	0	1	0	0	2	2,502.10	838	862	TRUE	
SNU216LR_PC1_02	Isoform 1 of Rap guanine nucleotide exchange fa	IPI00008865,IPI00291839,IP	157,499.50	99.70%	1	1	1	0.01%	0.50%	RSSLLNAK	R	K	94.10%	2.48	0.156	0	1	0	0	2	968.4925	1092	1099	TRUE	
SNU216LR_PC1_02	SCC-112 protein	IPI00303063	150,835.50	100.00%	2	2	2	0.01%	2.77%	AAVGQESPGGLEAGNAK	R	A	95.00%	2.91	0.236	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216LR_PC1_02	SCC-112 protein	IPI00303063	150,835.50	100.00%	2	2	2	0.01%	2.77%	EQSSEAAETGVSENEENPVR	R	I	95.00%	3.03	0.3	0	1	0	0	2	2,241.91	1184	1203	TRUE	
SNU216LR_PC1_02	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	99.80%	2	2	2	0.01%	2.85%	RLSKPPFQTNPSPEMVSK	R	L	95.00%	3.45	0.31	0	0	1	0	2	2,123.04	578	595	TRUE	
SNU216LR_PC1_02	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	99.80%	2	2	2	0.01%	2.85%	VHADLVISKPVSKSPER	K	L	95.00%	3.23	0.454	0	0	1	0	2	1,942.02	679	695	TRUE	
SNU216LR_PC1_02	Histone deacetylase 2	IPI00289601	55,365.50	99.80%	1	1	1	0.01%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	3.74	0.359	0	0	1	0	2	3,665.55	373	405	TRUE	
SNU216LR_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	EKKPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.73	0.424	0	0	0	1	2	2,717.25	518	542	TRUE	
SNU216LR_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	KPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.33	0.496	0	0	3	0	2	2,460.11	520	542	TRUE	
SNU216LR_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	SSPVKKPSLLK	K	A	92.00%	2.43	0.193	0	0	1	0	2	1,263.71	556	566	TRUE	
SNU216LR_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	TGASSLLNKSSPVK	R	K	95.00%	3.53	0.384	0	1	0	0	2	1,468.74	547	560	TRUE	
SNU216LR_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	4.85%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.27	0.219	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216LR_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	4.85%	ARHDTPDPSPLR	R	G	95.00%	1.89	0.265	0	1	0	0	2	1,521.62	155	166	TRUE	
SNU216LR_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	4.85%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.1	0.34	0	1	0	0	2	1,861.85	269	284	TRUE	
SNU216LR_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	4.85%	HDTPDPSPLR	R	G	95.00%	2.37	0.243	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216LR_PC1_02	Talin-1	IPI00298994	271,170.80	100.00%	3	4	4	0.02%	0.94%	DHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	4.97	0.487	0	0	1	0	2	2,530.07	407	428	TRUE	
SNU216LR_PC1_02	Talin-1	IPI00298994	271,170.80	100.00%	3	4	4	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPK	K	K	95.00%	6.53	0.474	0	0	1	0	2	2,617.10	405	427	TRUE	
SNU216LR_PC1_02	Talin-1	IPI00298994	271,170.80	100.00%	3	4	4	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	5.81	0.486	0	0	1	1	2	2,745.20	405	428	TRUE	
SNU216LR_PC1_02	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	99.80%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	95.00%	2.15	0.287	0	1	0	0	2	1,768.67	272	284	TRUE	
SNU216LR_PC1_02	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	1	2	2	0.01%	1.27%	AKPAMPQDSVPSPR	K	S	95.00%	3.01	0.356	0	1	1	0	2	1,560.72	470	483	TRUE	
SNU216LR_PC1_02	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	2	2	2	0.01%	2.01%	AAQQQQPSASPR	R	A	95.00%	2.52	0.161	0	1	0	0	2	1,348.60	1444	1455	TRUE	
SNU216LR_PC1_02	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	2	2	2	0.01%	2.01%	YIEGLSAESNSISKWDQTLAAR	K	R	93.50%	2.87	0.164	0	0	1	0	2	2,599.15	1613	1634	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	DSKPIALKEEIVTPK	R	E	95.00%	2.53	0.211	0	0	1	0	2	1,747.92	502	516	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	ESKGSPVFLPR	K	K	95.00%	2.12	0.3	0	1	0	0	2	1,296.63	419	429	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	95.00%	3.64	0.33	0	0	2	0	2	2,545.18	1069	1093	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	4.15	0.462	0	0	1	0	2	2,811.39	664	689	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	4.53	0.388	0	0	2	0	2	2,300.18	381	401	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	4.51	0.525	0	0	1	0	2	2,673.28	1068	1093	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	LYNSEESRPYTNK	R	V	86.20%	2.63	0.12	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	NSSPAPPQPAPGK	K	V	95.00%	2.51	0.315	0	1	0	0	2	1,327.60	1081	1093	TRUE	
SNU216LR_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	9	9	11	0.07%	8.86%	QDDSPSGASYGQDYDLSPSR	K	S	85.30%	3.3	0.0261	0	1	0	0	2	2,304.83	233	252	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	AEASSPVPYLSPETNPASSTSAVNHNVNLT	K	L	82.40%	5.48	0.0161	0	0	1	0	2	3,503.64	923	955	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	4.95	0.536	0	1	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	3.43	0.272	0	0	2	0	2	2,290.07	266	286	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	ATLLNVPDLSDSIHSANASERDDISEIQSLAS	R	S	95.00%	5.78	0.0728	0	0	0	1	2	4,000.85	266	302	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	DDISEIQSLASDHSGR	R	S	95.00%	2.94	0.228	0	1	1	0	2	1,809.77	287	302	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	95.00%	4.61	0.389	0	0	1	1	2	3,211.37	883	909	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	HTSDYEDTDTEGGAYTDQELDETLNDEVGT	R	S	95.00%	7.66	0.119	0	0	1	0	2	4,251.75	839	876	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	IDSPGFKPASQQK	R	A	95.00%	2.61	0.353	0	1	1	0	2	1,482.70	910	922	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	ISKPGAVSTPVK	R	H	95.00%	2.38	0.267	0	0	1	0	2	1,263.67	346	357	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	5.04	0.438	0	0	1	1	2	2,165.08	346	365	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.46	0.447	0	0	2	1	2	3,571.59	111	140	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	LEEPTPAPSTSYSPQADSLR	R	T	95.00%	4.31	0.0387	0	1	0	0	2	2,226.00	956	975	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	RYEPIQATPPPPPLPSQYAQPSQPVTSASLHS	K	G	95.00%	4.94	0.44	0	0	0	1	2	3,899.95	1418	1452	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	SEPSDHSRHSPQQPSNGSLR	R	S	95.00%	2.61	0.185	0	0	1	0	2	2,282.99	320	339	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	SFENKPPAHIAASHLSEPAKPAHSQNQSNF	R	G	95.00%	4.27	0.3	0	0	0	1	2	3,960.83	1366	1401	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	4.64	0.437	0	0	1	1	2	3,866.70	877	909	TRUE	
SNU216LR_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	24	26	0.16%	19.50%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.18	0.344	0	0	1	0	2	3,523.46	112	140	TRUE	
SNU216LR_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	4	4	4	0.02%	6.68%	LDSSPVLSPGNK	K	A	95.00%	2.67	0.459	0	1	0	0	2	1,293.61	775	786	TRUE	
SNU216LR_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	4	4	4	0.02%	6.68%	NLLHADSNGYTNLPDVVQPSHSPTENSK	R	G	95.00%	4.3	0.281	0	0	1	0	2	3,114.42	897	924	TRUE	
SNU216LR_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	4	4	4	0.02%	6.68%	QNSDPTSEGPGPSPNPPAWVRPDNEAPPK	R	V	95.00%	3.57	0.265	0	0	1	0	2	3,118.39	639	667	TRUE	
SNU216LR_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	4	4	4	0.02%	6.68%	SDSVLPASHGHLPQAGSLER	R	N	95.00%	3.65	0.301	0	0	1	0	2	2,138.00	747	766	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	DLEPGEVPSDSDEDGEHK	R	S	95.00%	3.09	0.471	0	2	0	0	2	2,034.78	1372	1389	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	ESGVVAVSPEKSESPQKEDGLSSQLK	R	S	95.00%	4.16	0.373	0	0	1	0	2	2,795.33	2113	2138	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	HGSFHEDEDPIGSPR	R	L	95.00%	2.88	0.439	0	1	2	0	2	1,759.71	1266	1280	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	LSPPVASGGIPHQSPPTK	K	V	95.00%	2.37	0.369	0	1	0	0	2	1,849.92	2480	2497	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	RPQSPGASPSQAER	R	L	95.00%	2.35	0.221	0	0	1	0	2	1,627.66	733	746	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	SDPVDPDKEPEKEDVSASGPSPEATQLAK	K	Q	95.00%	5.59	0.457	0	0	1	0	2	3,103.40	2139	2167	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	SESPQKEDGLSSQLK	K	S	95.00%	2.52	0.373	0	1	0	0	2	1,712.77	2124	2138	TRUE	
SNU216LR_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	11	0.07%	3.85%	SLVHEVGKPPQDVTDDSPPSK	R	K	95.00%	3.97	0.362	0	0	1	0	2	2,312.08	1206	1226	TRUE	
SNU216LR_PC1_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	6	0.04%	4.42%	GLLYDSDEEDEERPAR	R	K	95.00%	2.72	0.216	0	0	1	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC1_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	6	0.04%	4.42%	GLLYDSDEEDEERPARK	R	R	95.00%	2.51	0.274	0	0	1	0	2	2,101.91	134	150	TRUE	
SNU216LR_PC1_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	6	0.04%	4.42%	GNDPLTSSPGR	R	S	95.00%	2.3	0.43	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC1_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	6	0.04%	4.42%	RGLLYDSDEEDEERPAR	R	K	95.00%	3.43	0.342	0	1	1	0	2	2,129.91	133	149	TRUE	
SNU216LR_PC1_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	6	0.04%	4.42%	RTDALTSSPGR	R	D	95.00%	2.68	0.313	0	0	1	0	2	1,240.57	34	44	TRUE	
SNU216LR_PC1_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.90%	2	3	3	0.02%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	5.98	0.493	0	0	1	1	2	3,734.84	125	160	TRUE	
SNU216LR_PC1_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.90%	2	3	3	0.02%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.25	0.355	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216LR_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	6	6	0.04%	5.14%	AGAEDDEEKGEGTPR	K	E	95.00%	3.19	0.556	0	1	0	0	2	1,640.64	150	164	TRUE	
SNU216LR_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	6	6	0.04%	5.14%	AGAEDDEEKGEGTPREEGK	K	A	95.00%	2.06	0.302	0	1	0	0	2	2,083.85	150	168	TRUE	
SNU216LR_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	6	6	0.04%	5.14%	GPSQEEEDNHSDEEDR	R	A	95.00%	3.78	0.499	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216LR_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	6	6	0.04%	5.14%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	2.58	0.432	0	1	1	0	2	2,464.94	57	77	TRUE	
SNU216LR_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	5	6	6	0.04%	5.14%	LGVSVSPSR	K	A	95.00%	2.29	0.273	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	9	13	0.08%	3.16%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.98	0.459	0	1	1	0	2	2,224.85	760	778	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	9	13	0.08%	3.16%	EADDDEEVDDNIPEMPSPKK	K	M	95.00%	4.81	0.509	0	2	1	0	2	2,352.94	760	779	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	9	13	0.08%	3.16%	SDGEAKPEPSPSPR	K	I	95.00%	2.97	0.489	0	2	0	0	2	1,533.66	205	218	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	9	13	0.08%	3.16%	SKSDGEAKPEPSPSPR	K	I	95.00%	3.13	0.225	0	1	1	0	2	1,748.79	203	218	TRUE	
SNU216LR_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	9	13	0.08%	3.16%	VGMADANSPPKPLSKPR	R	T	95.00%	4.15	0.401	0	1	3	0	2	1,844.91	182	198	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	AAMYDIISSPSK	K	D	85.80%	2.19	0.165	0	1	0	0	2	1,362.60	342	353	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	AAMYDIISSPSKDSTK	K	L	95.00%	4.53	0.0172	0	1	0	0	2	1,793.80	342	357	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	AITSLLGGGSPK	K	N	95.00%	2.47	0.245	0	1	0	0	2	1,180.60	2649	2660	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	DVPPDILLDSPER	R	K	95.00%	2.14	0.25	0	1	0	0	2	1,545.72	309	321	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	DVPPDILLDSPERK	R	Q	94.80%	2.31	0.181	0	1	0	0	2	1,673.82	309	322	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	NNTAAETEDDESDGEDR	K	G	95.00%	3.47	0.521	0	1	0	0	2	1,947.67	2661	2677	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	NNTAAETEDDESDGEDRGGGTSGSLRR	K	S	95.00%	3.59	0.288	0	0	1	0	2	2,876.16	2661	2687	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	8	8	8	0.05%	3.82%	VRSSDMDQQEDMISGVENSNVSENDIPFN	R	T	95.00%	4.47	0.455	0	0	1	0	2	4,324.86	365	402	TRUE	
SNU216LR_PC1_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	99.80%	2	2	2	0.01%	3.91%	ESTSSKSPPR	K	K	95.00%	1.86	0.301	0	1	0	0	2	1,155.50	776	785	TRUE	
SNU216LR_PC1_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	99.80%	2	2	2	0.01%	3.91%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.24	0.417	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216LR_PC1_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	99.80%	2	2	2	0.01%	2.33%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	3.52	0.0494	0	1	0	0	2	2,209.84	78	96	TRUE	
SNU216LR_PC1_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	99.80%	2	2	2	0.01%	2.33%	KAQAVSEEEEEEEGK	R	S	95.00%	3.11	0.381	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216LR_PC1_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	94.50%	6.09	0.0278	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216LR_PC1_02	claspin	IPI00160348,IPI00744511,IP	151,097.60	100.00%	3	4	4	0.02%	4.78%	NFVFHTLSPVKAEAAK	R	E	95.00%	3.01	0.409	0	1	1	0	2	1,838.92	1282	1297	TRUE	
SNU216LR_PC1_02	claspin	IPI00160348,IPI00744511,IP	151,097.60	100.00%	3	4	4	0.02%	4.78%	NIDDASQMDLFHRDSDDDQTEEQLDESEA	K	W	95.00%	4.81	0.434	0	0	1	0	2	3,604.43	1142	1171	TRUE	
SNU216LR_PC1_02	claspin	IPI00160348,IPI00744511,IP	151,097.60	100.00%	3	4	4	0.02%	4.78%	TTYDSAEEENKENLYAGK	K	N	95.00%	3.83	0.462	0	1	0	0	2	2,141.89	79	96	TRUE	
SNU216LR_PC1_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.6	0.448	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC1_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	5.47	0.461	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	3	3	4	0.02%	5.35%	ILDILGETCKSEPVK	K	E	91.30%	2.43	0.15	0	1	0	0	2	1,861.84	217	231	TRUE	IPI00005648
SNU216LR_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	3	3	4	0.02%	5.35%	MSSPEDDSDTKR	K	L	95.00%	2.54	0.338	0	2	0	0	2	1,447.54	382	393	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	3	3	4	0.02%	5.35%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.1	0.449	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	DQMEGSPNSSESFEHIAR	R	S	95.00%	3.16	0.367	0	1	0	0	2	2,100.83	776	793	TRUE	
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	LPDLSPVENKEHKPGPIGK	K	E	95.00%	3.42	0.425	0	0	1	0	2	2,135.09	2103	2121	TRUE	
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	QDSNRSEKEATPVVHETEPESGSQPR	R	P	95.00%	3.25	0.377	0	0	1	0	2	3,054.28	633	658	TRUE	
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	QRGSETDTDSEIHESASDKDSLSK	R	G	95.00%	4.64	0.453	0	0	0	1	2	2,702.14	1262	1285	TRUE	
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	RSVSHGSNHTQKPDEQR	K	S	95.00%	2.83	0.252	0	0	0	1	2	2,042.92	925	941	TRUE	
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	SESSDFEVVPK	R	R	90.30%	1.95	0.247	0	1	0	0	2	1,303.55	1248	1258	TRUE	
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	SVSHGSNHTQKPDEQR	R	S	95.00%	2.57	0.39	0	0	0	1	2	1,886.81	926	941	TRUE	
SNU216LR_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,998.30	100.00%	8	8	8	0.05%	5.03%	VKDAQQVEPEGQEKPSPATVR	K	S	95.00%	4.4	0.444	0	0	1	0	2	2,373.14	2130	2150	TRUE	
SNU216LR_PC1_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.90%	1	1	1	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	95.00%	2.54	0.25	0	0	1	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	2.24%	RHDEDEDDSLKDR	R	E	95.00%	2.9	0.223	0	0	1	0	2	1,709.68	891	903	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	2.24%	RRSNTLDIMDGR	R	I	95.00%	3.27	0.435	0	0	1	0	2	1,513.69	1515	1526	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	2.24%	RSNTLDIMDGR	R	I	95.00%	2.36	0.276	0	1	0	0	2	1,357.59	1516	1526	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	2.24%	SNTLDIMDGR	R	I	95.00%	2.82	0.477	0	1	0	0	2	1,201.49	1517	1526	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	2.24%	STSSTSSGSNSNALVPVSWK	R	R	89.20%	3.22	0.0477	0	1	0	0	2	2,075.93	1932	1951	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	6	6	6	0.04%	2.24%	TYGGDTGSPEISFTK	K	I	88.60%	2.27	0.161	0	1	0	0	2	1,639.69	1867	1881	TRUE	
SNU216LR_PC1_02	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	99.80%	2	2	2	0.01%	1.50%	APLKPYPVSPSDK	K	V	95.00%	2.98	0.413	0	1	0	0	2	1,478.73	1043	1055	TRUE	
SNU216LR_PC1_02	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	99.80%	2	2	2	0.01%	1.50%	APLKPYPVSPSDKVLIQEK	K	T	95.00%	3.8	0.481	0	0	1	0	2	2,189.16	1043	1061	TRUE	
SNU216LR_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	13	0.08%	5.81%	AGAGMITQHSSNASPINR	R	I	95.00%	3.29	0.224	0	1	0	0	2	1,891.85	989	1006	TRUE	
SNU216LR_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	13	0.08%	5.81%	DGQDAIAQSPEK	K	E	95.00%	2.97	0.397	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216LR_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	13	0.08%	5.81%	DGQDAIAQSPEKESK	K	D	95.00%	4	0.372	0	1	0	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	13	0.08%	5.81%	DGQDAIAQSPEKESKDYEMNANHK	K	D	95.00%	5.94	0.386	0	0	1	1	2	2,785.18	281	304	TRUE	
SNU216LR_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	13	0.08%	5.81%	ISSKSPGHMVILDQTK	K	G	95.00%	3.71	0.475	0	2	3	0	2	1,900.86	549	564	TRUE	
SNU216LR_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	13	0.08%	5.81%	RISSKSPGHMVILDQTK	K	G	95.00%	3.23	0.276	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216LR_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	7	10	13	0.08%	5.81%	SPGHMVILDQTK	K	G	95.00%	2.4	0.177	0	0	1	0	2	1,405.65	553	564	TRUE	
SNU216LR_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	3	4	0.02%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	7.2	0.517	0	0	2	0	2	3,353.45	35	69	TRUE	
SNU216LR_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	3	4	0.02%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	6.19	0.514	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216LR_PC1_02	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	3	3	3	0.02%	1.93%	EENPESDGEPVVEDGTSVK	K	T	95.00%	3.93	0.396	0	1	0	0	2	2,096.85	261	279	TRUE	
SNU216LR_PC1_02	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	3	3	3	0.02%	1.93%	TSSFTEQLDEGTPNR	R	E	95.00%	3.1	0.299	0	1	0	0	2	1,761.73	39	53	TRUE	
SNU216LR_PC1_02	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	3	3	3	0.02%	1.93%	VPSVESLFR	R	S	95.00%	1.97	0.258	0	1	0	0	2	1,113.53	69	77	TRUE	
SNU216LR_PC1_02	Proline and glutamic acid rich nuclear protein isof	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	3.07%	GDSNANSDPSPSASEK	K	I	95.00%	2.51	0.257	0	0	1	0	2	1,722.59	511	526	TRUE	
SNU216LR_PC1_02	Proline and glutamic acid rich nuclear protein isof	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	3.07%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.4	0.311	0	1	0	0	2	1,606.75	478	493	TRUE	
SNU216LR_PC1_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	107,193.00	100.00%	3	3	3	0.02%	3.38%	DRTPPLLYR	R	D	95.00%	2.25	0.32	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216LR_PC1_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	107,193.00	100.00%	3	3	3	0.02%	3.38%	HLDRSPESDRPR	R	K	87.10%	2.43	0.207	0	0	1	0	2	1,544.70	652	663	TRUE	
SNU216LR_PC1_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	107,193.00	100.00%	3	3	3	0.02%	3.38%	SLSPGGAALGYR	R	D	95.00%	2.39	0.215	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	11	12	0.07%	5.75%	AEPSEVDMNSPK	K	S	95.00%	2.26	0.266	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	11	12	0.07%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	4.03	0.449	0	2	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	11	12	0.07%	5.75%	KEEPSQNDISPK	K	T	95.00%	2.88	0.319	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	11	12	0.07%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.39	0.444	0	1	1	0	2	1,655.73	60	73	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	11	12	0.07%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.5	0.359	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	11	12	0.07%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	4.03	0.437	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	11	12	0.07%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	4.07	0.48	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216LR_PC1_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.27	0.531	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC1_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.13	0.222	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC1_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	2.76	0.193	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC1_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	SPGAPGPLTLK	R	E	95.00%	1.81	0.357	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	5	6	6	0.04%	2.96%	ESTPSEEPSPPHNSK	K	H	95.00%	2.83	0.256	0	1	0	0	2	1,702.70	1495	1509	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	5	6	6	0.04%	2.96%	KDSSSEVFSDAAK	R	E	95.00%	3.79	0.461	0	1	0	0	2	1,450.61	921	933	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	5	6	6	0.04%	2.96%	SKSYDEGLDDYREDAK	R	L	95.00%	3.34	0.464	0	1	1	0	2	1,970.80	878	893	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	5	6	6	0.04%	2.96%	TQSPHSPKEESER	K	K	95.00%	3.05	0.495	0	1	0	0	2	1,591.67	1093	1105	TRUE	
SNU216LR_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	5	6	6	0.04%	2.96%	TQSPHSPKEESERK	K	L	95.00%	2.66	0.379	0	0	1	0	2	1,719.77	1093	1106	TRUE	
SNU216LR_PC1_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	3	3	3	0.02%	2.69%	AEEGKSPFRESSGDGMK	R	M	95.00%	3.41	0.42	0	0	1	0	2	1,891.79	753	769	TRUE	
SNU216LR_PC1_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	3	3	3	0.02%	2.69%	APSLTDLVK	K	S	84.90%	1.88	0.174	0	1	0	0	2	1,023.51	1053	1061	TRUE	
SNU216LR_PC1_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	3	3	3	0.02%	2.69%	LVEPHSPSPSSK	R	F	95.00%	2.53	0.395	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216LR_PC1_02	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.88%	RVSGDAAQDLDR	R	G	95.00%	2.72	0.154	0	1	0	0	2	1,382.61	560	571	TRUE	
SNU216LR_PC1_02	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.88%	SSEGGVGVGPGGGDEPPTSPR	K	Q	95.00%	3.74	0.459	0	1	0	0	2	1,975.84	1187	1207	TRUE	
SNU216LR_PC1_02	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.88%	TASEGDGGAAAGAAAAGAR	R	P	95.00%	4.22	0.6	0	1	0	0	2	1,611.68	365	383	TRUE	
SNU216LR_PC1_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.04	0.268	0	0	2	0	2	2,664.20	232	256	TRUE	
SNU216LR_PC1_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	4.03	0.26	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC26115 isofo	IPI00030466	210,116.80	100.00%	4	6	8	0.05%	3.16%	ASPPAESMSVYR	R	S	95.00%	2.09	0.406	0	1	0	0	2	1,374.58	1454	1465	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC26115 isofo	IPI00030466	210,116.80	100.00%	4	6	8	0.05%	3.16%	DSAYISSSPLGSHQVFDFR	R	S	95.00%	4.5	0.0179	0	1	1	0	2	2,192.96	1361	1379	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC26115 isofo	IPI00030466	210,116.80	100.00%	4	6	8	0.05%	3.16%	EYPSPPPSPLR	K	R	95.00%	2.36	0.257	0	0	1	0	2	1,399.57	1437	1447	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC26115 isofo	IPI00030466	210,116.80	100.00%	4	6	8	0.05%	3.16%	PSQGLPVIQSPPSSPPHR	R	D	95.00%	4.67	0.449	0	2	2	0	2	2,040.93	1343	1360	TRUE	
SNU216LR_PC1_02	Pericentrin	IPI00479143	378,077.40	99.80%	2	2	2	0.01%	0.99%	KSPVGMLDLSSWSSPEVLR	R	K	95.00%	3.86	0.505	0	1	0	0	2	2,168.05	2213	2231	TRUE	
SNU216LR_PC1_02	Pericentrin	IPI00479143	378,077.40	99.80%	2	2	2	0.01%	0.99%	RESEVLDLKEQLEK	R	M	95.00%	3.5	0.216	0	0	1	0	2	1,795.88	1651	1664	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	6	6	0.04%	4.93%	ERGSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	7.74	0.595	0	0	1	0	2	3,198.54	273	302	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	6	6	0.04%	4.93%	GQSQLSNPTDDSWK	R	G	95.00%	2.84	0.426	0	1	0	0	2	1,642.67	1523	1536	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	6	6	0.04%	4.93%	GSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	4.94	0.525	0	0	1	1	2	2,913.40	275	302	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	6	6	0.04%	4.93%	HSQAQSKPTTPEKTDLTNGEHAR	K	S	95.00%	3.49	0.274	0	0	0	1	2	2,613.21	235	257	TRUE	
SNU216LR_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	6	6	0.04%	4.93%	QSLSSADNLESDAQGHQVAAR	R	F	95.00%	4.15	0.242	0	0	1	0	2	2,263.99	345	365	TRUE	
SNU216LR_PC1_02	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,395.60	100.00%	3	3	4	0.02%	2.33%	AESDGEEKEEVKEELGR	K	P	95.00%	4.09	0.469	0	0	1	0	2	2,013.87	2599	2615	TRUE	
SNU216LR_PC1_02	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,395.60	100.00%	3	3	4	0.02%	2.33%	SLSDNGQPGTPDPADSGGTSAK	K	E	95.00%	3.9	0.229	0	2	0	0	2	2,138.89	1732	1753	TRUE	
SNU216LR_PC1_02	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,395.60	100.00%	3	3	4	0.02%	2.33%	SVGDESWEQTQEGDVGALYHEQLALK	K	T	95.00%	5.2	0.437	0	0	1	0	2	2,969.32	783	808	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	HRSIHEVDISNLEAALR	R	A	95.00%	3.55	0.247	0	0	1	0	2	2,040.00	885	901	TRUE	
SNU216LR_PC1_02	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	TKSPTDDEVTPSAVVR	R	R	95.00%	3.82	0.571	0	1	1	0	2	1,781.83	795	810	TRUE	
SNU216LR_PC1_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	99.40%	1	1	1	0.01%	2.05%	GDDDEESDEEAVKK	K	T	95.00%	3.14	0.307	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216LR_PC1_02	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	EIPEDVDMEEEEKESEDSDEENDFTEK	K	V	95.00%	2.68	0.229	0	0	1	0	2	3,277.17	766	791	TRUE	
SNU216LR_PC1_02	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	VQDTSNTGLGEDIIHQLSK	K	S	95.00%	5.43	0.444	0	1	1	0	2	2,135.00	792	810	TRUE	
SNU216LR_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	7	0.04%	5.85%	GPTPPAMGPR	R	D	95.00%	2.3	0.444	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	7	0.04%	5.85%	LSASTASELSPK	R	S	95.00%	2.62	0.207	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216LR_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	7	0.04%	5.85%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.57	0.36	0	2	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	7	0.04%	5.85%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	3.8	0.339	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	7	0.04%	5.85%	SRGPTPPAMGPR	K	D	83.50%	2.25	0.161	0	0	1	0	2	1,303.60	93	104	TRUE	
SNU216LR_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.00%	EDILENEDEQNSPPK	K	K	95.00%	3.64	0.27	0	1	0	0	2	1,836.75	42	56	TRUE	
SNU216LR_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.00%	GHTASESDEQQWPEEK	R	R	95.00%	3.28	0.454	0	2	1	0	2	1,937.76	23	38	TRUE	
SNU216LR_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.00%	GHTASESDEQQWPEEKR	R	L	95.00%	3.89	0.505	0	1	0	0	2	2,093.86	23	39	TRUE	
SNU216LR_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.00%	LKEDILENEDEQNSPPK	R	K	95.00%	5.21	0.318	0	1	1	0	2	2,077.93	40	56	TRUE	
SNU216LR_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.00%	LKEDILENEDEQNSPPKK	R	G	95.00%	5.15	0.226	0	1	0	0	2	2,206.03	40	57	TRUE	
SNU216LR_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.00%	RLKEDILENEDEQNSPPK	K	K	95.00%	4.18	0.293	0	0	1	0	2	2,234.03	39	56	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	2	3	4	0.02%	2.09%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.89	0.389	0	2	0	0	2	1,868.75	1461	1477	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	2	3	4	0.02%	2.09%	NSKSPEEHLEEMMK	K	M	95.00%	4.05	0.33	0	1	1	0	2	1,768.73	358	371	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase MRCK beta	IPI00477763	194,318.00	100.00%	1	2	4	0.02%	1.23%	HSTPSNSSNPSGPPSPNSPHR	K	S	95.00%	4.36	0.363	0	1	3	0	2	2,300.91	1676	1696	TRUE	
SNU216LR_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	5	7	7	0.04%	3.05%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	5.62	0.495	0	1	1	0	2	2,461.21	1678	1699	TRUE	
SNU216LR_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	5	7	7	0.04%	3.05%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.59	0.346	0	0	1	1	2	3,457.49	2117	2144	TRUE	
SNU216LR_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	5	7	7	0.04%	3.05%	ESDQTLAALLSPK	K	E	95.00%	2.28	0.269	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216LR_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	5	7	7	0.04%	3.05%	SAASPVVSSMPER	K	A	95.00%	2.45	0.354	0	1	0	0	2	1,397.61	1766	1778	TRUE	
SNU216LR_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	5	7	7	0.04%	3.05%	SVESTSPEPSK	K	I	95.00%	1.7	0.317	1	0	0	0	2	1,227.51	278	288	TRUE	
SNU216LR_PC1_02	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	3	4	4	0.02%	1.56%	SLLGIDTEDAIQGR	R	N	95.00%	3.52	0.533	0	1	0	0	2	1,567.74	1750	1763	TRUE	
SNU216LR_PC1_02	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	3	4	4	0.02%	1.56%	SVPVNNLPERSPTDSPR	K	E	90.10%	2.59	0.186	0	1	1	0	2	1,944.92	3165	3181	TRUE	
SNU216LR_PC1_02	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	3	4	4	0.02%	1.56%	VAQRSPVDSGTILREPTTK	K	S	95.00%	4.69	0.355	0	0	1	0	2	2,135.09	3146	3164	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	4	4	0.02%	1.16%	HEDEQALLDQNSQTPPPSPFSVQAFNK	R	G	95.00%	5.39	0.479	0	0	1	0	2	3,104.40	2632	2658	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	4	4	0.02%	1.16%	SKSDSYTLDPDTLR	R	K	85.00%	3.28	0.0195	0	1	0	0	2	1,677.74	2831	2844	TRUE	
SNU216LR_PC1_02	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	4	4	0.02%	1.16%	SLSPNHNTLQTLK	R	S	95.00%	2.48	0.228	0	1	1	0	2	1,532.75	2749	2761	TRUE	
SNU216LR_PC1_02	RNA binding motif protein 15B	IPI00175136	97,208.40	99.90%	2	2	2	0.01%	2.70%	DRTPPHLLYSDR	R	D	95.00%	2.85	0.442	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216LR_PC1_02	RNA binding motif protein 15B	IPI00175136	97,208.40	99.90%	2	2	2	0.01%	2.70%	TFLEGDWTSPSK	R	S	95.00%	2.57	0.246	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216LR_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	4	4	4	0.02%	7.26%	DKSDSDTEGLLFSR	R	D	95.00%	3.1	0.398	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216LR_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	4	4	4	0.02%	7.26%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.77	0.4	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	4	4	4	0.02%	7.26%	SDSDTEGLLFSR	K	D	95.00%	2.38	0.285	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216LR_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	4	4	4	0.02%	7.26%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	R	T	93.60%	6.62	0.0073	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	99.80%	1	2	2	0.01%	1.45%	RDSPLQGSGQQNSQAGQR	R	N	95.00%	4.93	0.558	0	1	1	0	2	1,993.88	637	654	TRUE	
SNU216LR_PC1_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	4	4	0.02%	3.98%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	3.46	0.491	0	1	1	0	2	2,075.92	342	359	TRUE	
SNU216LR_PC1_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	4	4	0.02%	3.98%	KRSPSPSPTPEAK	R	K	95.00%	3.12	0.316	0	1	1	0	2	1,461.71	300	312	TRUE	
SNU216LR_PC1_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	4	4	0.02%	3.98%	TLTDEVNSPDSDRR	K	D	95.00%	3.21	0.273	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216LR_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	7	8	8	0.05%	10.10%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	3.9	0.336	0	1	1	0	2	2,421.09	968	990	TRUE	
SNU216LR_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	7	8	8	0.05%	10.10%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	3.43	0.276	0	0	1	0	2	2,439.07	279	299	TRUE	
SNU216LR_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	7	8	8	0.05%	10.10%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	4.24	0.393	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216LR_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	7	8	8	0.05%	10.10%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	4.13	0.262	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216LR_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	7	8	8	0.05%	10.10%	MEVDRSPGLPMSDLK	K	T	95.00%	2.78	0.188	0	1	0	0	2	1,754.79	614	628	TRUE	
SNU216LR_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	7	8	8	0.05%	10.10%	SKSNPDFLKK	K	D	95.00%	2.66	0.203	0	0	1	0	2	1,243.61	991	1000	TRUE	
SNU216LR_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	7	8	8	0.05%	10.10%	YKDIYTELSIAK	K	A	94.60%	2.88	0.177	0	1	0	0	2	1,523.74	941	952	TRUE	
SNU216LR_PC1_02	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	3	0.02%	5.02%	EEDFRRPSEEDFR	R	R	95.00%	2.49	0.271	0	0	1	0	2	1,791.73	584	596	TRUE	
SNU216LR_PC1_02	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	3	0.02%	5.02%	FPPEDFRHSPEDFR	R	R	86.60%	2.42	0.2	0	0	1	0	2	1,855.78	567	580	TRUE	
SNU216LR_PC1_02	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	3	0.02%	5.02%	SRSPLGFYVHLK	R	N	95.00%	3.23	0.415	0	0	1	0	2	1,483.75	278	289	TRUE	
SNU216LR_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00034006	178,974.60	100.00%	1	1	1	0.01%	2.02%	GAAAADLLSSSPESQHGGTQSPGGGQPLL	R	V	82.10%	5.76	0.0062	0	0	1	0	2	3,224.52	1113	1145	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	DSSFTEVPRSPK	R	H	95.00%	3.13	0.422	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	FSSSIENSDSPVR	K	S	95.00%	3.13	0.412	0	1	0	0	2	1,504.63	485	497	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.58	0.402	0	1	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	SNEEEETSDSSLEK	R	Q	95.00%	2.82	0.272	0	1	0	0	2	1,663.62	56	69	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	SPSFGDPQLSPEAR	R	P	95.00%	2.6	0.184	0	1	0	0	2	1,567.68	261	274	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	SPSFGDPQLSPEARPR	R	C	95.00%	3.04	0.208	0	1	1	0	2	1,900.80	261	276	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.13	0.595	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	3.43	0.395	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216LR_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	11	11	0.07%	6.60%	YGSFEEAEASYPILNR	K	A	95.00%	3.88	0.223	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216LR_PC1_02	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.30%	2	2	2	0.01%	6.05%	MTNNEDSLSPTSSTLSNLELDAAEKDR	R	K	85.70%	4.81	0.0477	0	0	1	0	2	3,018.32	549	575	TRUE	
SNU216LR_PC1_02	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.30%	2	2	2	0.01%	6.05%	NAPLPSLQNGPNTPNKPSSPPPPQQFVVQI	R	T	95.00%	3.25	0.15	0	0	0	1	2	4,154.09	793	831	TRUE	
SNU216LR_PC1_02	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	1	1	1	0.01%	1.53%	GDTPGHATPGHGGATSSARK	R	N	83.20%	2.5	0.202	0	0	1	0	2	1,941.86	271	290	TRUE	
SNU216LR_PC1_02	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	AQSNGSGNGSDSEMDTSSLER	K	G	95.00%	4.1	0.507	0	1	0	0	2	2,208.83	1125	1145	TRUE	
SNU216LR_PC1_02	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	KVSIVSKPVLYR	R	T	95.00%	3.3	0.382	0	1	1	0	2	1,468.83	1148	1159	TRUE	
SNU216LR_PC1_02	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	NEEENIYSVPHDSTQGK	R	I	95.00%	3.66	0.502	0	1	0	0	2	2,026.84	1099	1115	TRUE	
SNU216LR_PC1_02	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	NQKNSLSDPNIDR	R	I	88.50%	2.64	0.0963	0	1	0	0	2	1,580.71	585	597	TRUE	
SNU216LR_PC1_02	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	TSFSVGSDDELGPIR	R	K	95.00%	2.31	0.307	0	1	0	0	2	1,659.73	1173	1187	TRUE	
SNU216LR_PC1_02	Isoform 1 of Alsin	IPI00295004	183,668.60	99.80%	2	2	2	0.01%	2.23%	RLSLPGLLSQVSPR	R	L	95.00%	2.78	0.179	0	0	1	0	2	1,682.84	481	494	TRUE	
SNU216LR_PC1_02	Isoform 1 of Alsin	IPI00295004	183,668.60	99.80%	2	2	2	0.01%	2.23%	SESPEPGYVVTSSGLLLPVLLPR	R	L	95.00%	4.71	0.0258	0	1	0	0	2	2,490.29	1462	1484	TRUE	
SNU216LR_PC1_02	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	3	4	4	0.02%	1.64%	RISQSQPVR	R	G	91.70%	1.93	0.207	0	1	0	0	2	1,150.57	1547	1555	TRUE	
SNU216LR_PC1_02	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	3	4	4	0.02%	1.64%	STPAPKEEEKVNEEQWSLR	R	E	95.00%	3.44	0.505	0	0	1	0	2	2,337.08	636	654	TRUE	
SNU216LR_PC1_02	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	3	4	4	0.02%	1.64%	TASPEDSDMPDHDLEPPR	K	F	95.00%	3.46	0.409	0	1	1	0	2	2,088.82	1306	1323	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	7	7	7	0.04%	3.56%	ALQHTESPSETNKPHSK	K	S	95.00%	3.16	0.335	0	0	0	1	2	1,970.90	94	110	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	7	7	7	0.04%	3.56%	DDSLDLSPQGR	R	L	95.00%	2.7	0.192	0	1	0	0	2	1,282.53	985	995	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	7	7	7	0.04%	3.56%	HLAESESLLTSPPK	K	A	95.00%	2.81	0.285	0	1	0	0	2	1,588.76	932	945	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	7	7	7	0.04%	3.56%	KRSESPPAELPSLR	K	R	95.00%	3.27	0.351	0	0	1	0	2	1,726.79	308	321	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	7	7	7	0.04%	3.56%	RSESPPAELPSLR	K	R	95.00%	3.29	0.358	0	0	1	0	2	1,518.73	309	321	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	7	7	7	0.04%	3.56%	SESPPAELPSLR	R	R	95.00%	2.46	0.434	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216LR_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	7	7	7	0.04%	3.56%	YSPPRDDDKVDNQAK	K	S	95.00%	2.5	0.247	0	0	1	0	2	1,827.79	1015	1029	TRUE	
SNU216LR_PC1_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.91	0.402	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC1_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	3.28	0.382	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC1_02	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	4	4	0.02%	2.62%	AQTLPTSVVTITSESSPGKR	R	E	95.00%	4.61	0.0253	0	1	0	0	2	2,139.07	2326	2345	TRUE	
SNU216LR_PC1_02	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	4	4	0.02%	2.62%	RPPSPEPSTK	R	V	95.00%	2.6	0.401	1	1	0	0	2	1,175.55	2099	2108	TRUE	
SNU216LR_PC1_02	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	4	4	0.02%	2.62%	VSEEAESQQQWDTSKGEQVSQNGLPAEQ	K	M	95.00%	5.37	0.42	0	0	1	0	2	3,566.57	2109	2140	TRUE	
SNU216LR_PC1_02	Cytoskeleton-associated protein 5	IPI00028275,IPI00472887	225,515.80	100.00%	1	1	1	0.01%	1.38%	HSTSGTDEGEDGDEPDDGSNDVVDLLPR	K	T	95.00%	6.41	0.0304	0	0	1	0	2	3,008.19	827	854	TRUE	
SNU216LR_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	7	7	7	0.04%	4.70%	ELDPSLVSANDSPSGMQTR	R	C	95.00%	4.26	0.0862	0	0	1	0	2	2,083.90	2150	2168	TRUE	
SNU216LR_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	7	7	7	0.04%	4.70%	GQSPLAPLLETLEDPSASHGGQTDAYLTLTS	R	M	95.00%	5.56	0.596	0	0	1	0	2	3,405.62	5	36	TRUE	
SNU216LR_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	7	7	7	0.04%	4.70%	NVSQESLETKEEKPEETPK	K	M	82.30%	3.06	0.115	0	0	1	0	2	2,282.04	1871	1889	TRUE	
SNU216LR_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	7	7	7	0.04%	4.70%	SLSPDEER	K	L	93.70%	1.81	0.234	0	1	0	0	2	1,012.40	2391	2398	TRUE	
SNU216LR_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	7	7	7	0.04%	4.70%	SNESVDIQDQEEK	K	V	95.00%	3.08	0.401	0	1	0	0	2	1,600.64	1576	1588	TRUE	
SNU216LR_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	7	7	7	0.04%	4.70%	SPLHIKDDVLPK	K	Q	79.50%	2.28	0.197	0	0	1	0	2	1,441.75	1454	1465	TRUE	
SNU216LR_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	7	7	7	0.04%	4.70%	SQEDEISSPVNK	R	V	95.00%	2.48	0.304	0	1	0	0	2	1,412.59	2189	2200	TRUE	
SNU216LR_PC1_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	3	0.02%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	4.7	0.517	0	1	1	0	2	2,577.16	2398	2420	TRUE	
SNU216LR_PC1_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	3	0.02%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	2.85	0.193	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216LR_PC1_02	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	99.80%	2	2	2	0.01%	1.40%	TASPPALPK	R	I	95.00%	1.87	0.331	0	1	0	0	2	961.4756	641	649	TRUE	
SNU216LR_PC1_02	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	99.80%	2	2	2	0.01%	1.40%	TSSPPSSPQHSPALR	R	D	95.00%	2.43	0.37	0	1	0	0	2	1,628.74	737	751	TRUE	
SNU216LR_PC1_02	palladin	IPI00292009	122,047.90	100.00%	3	4	5	0.03%	3.35%	GRSPRSPSGHPHVR	R	R	95.00%	3.16	0.413	0	0	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC1_02	palladin	IPI00292009	122,047.90	100.00%	3	4	5	0.03%	3.35%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	2.74	0.371	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC1_02	palladin	IPI00292009	122,047.90	100.00%	3	4	5	0.03%	3.35%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	4.75	0.604	0	0	2	0	2	2,474.40	632	654	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	4	4	0.02%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	4.19	0.459	0	0	0	1	2	1,836.88	210	226	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	4	4	0.02%	4.79%	RPDDVPLSLPSK	K	R	95.00%	4	0.362	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	4	4	0.02%	4.79%	RPDDVPLSLPSPSK	K	A	95.00%	3.02	0.334	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	7	8	0.05%	6.89%	EPVEETTKSPSDVNISAQPALSNFISQLEPEV	R	I	95.00%	4.95	0.323	0	0	1	1	2	4,224.06	748	785	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	7	8	0.05%	6.89%	GGNLPPVSPNDSGAK	K	I	95.00%	3.07	0.43	0	1	0	0	2	1,489.67	659	673	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	7	8	0.05%	6.89%	KKSVGGDSDTEDMR	R	S	95.00%	3.3	0.438	0	2	0	0	2	1,604.66	296	309	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	7	8	0.05%	6.89%	LIPITGGNARSPEDQLGK	K	H	95.00%	3.79	0.423	0	1	0	0	2	1,945.97	521	538	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	7	8	0.05%	6.89%	SPEDQLGK	R	H	93.00%	1.61	0.21	1	0	0	0	2	953.3978	531	538	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	6	7	8	0.05%	6.89%	SVGGDSDTEDMR	K	S	95.00%	2.27	0.409	0	1	0	0	2	1,348.47	298	309	TRUE	
SNU216LR_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	6	7	0.04%	7.13%	EVSSRPSTPGLSVVSGISATSEDIPNKIEDLR	R	S	94.90%	6.08	0.0261	0	0	2	1	2	3,420.69	594	625	TRUE	
SNU216LR_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	6	7	0.04%	7.13%	RPMSDPSWNR	R	R	95.00%	2.19	0.236	0	1	0	0	2	1,325.55	750	759	TRUE	
SNU216LR_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	6	7	0.04%	7.13%	RTSPSDGAMANYESTEVMGDGESAHDSPR	K	D	95.00%	8.38	0.014	0	0	1	0	2	3,134.25	854	882	TRUE	
SNU216LR_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	6	7	0.04%	7.13%	SRSSDIVSSVR	R	R	95.00%	2.98	0.264	0	1	0	0	2	1,272.59	739	749	TRUE	
SNU216LR_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	6	7	0.04%	7.13%	SSSLEMTPYNTPQLSPATTPANKK	K	N	95.00%	2.96	0.218	0	0	1	0	2	2,643.24	291	314	TRUE	
SNU216LR_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	KISGTTALQEALK	R	E	95.00%	3.31	0.46	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216LR_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	KISGTTALQEALKEK	R	Q	95.00%	3.86	0.345	0	0	1	0	2	1,696.89	346	360	TRUE	
SNU216LR_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	SPSASSLSSMSSVASSVSSR	R	P	95.00%	4.32	0.0429	0	1	0	0	2	1,980.86	310	329	TRUE	
SNU216LR_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	SPSASSLSSMSSVASSVSSRPSR	R	T	95.00%	2.8	0.204	0	0	1	0	2	2,321.04	310	332	TRUE	
SNU216LR_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	TASESISNLSEAGSIK	K	K	95.00%	2.74	0.221	0	1	0	0	2	1,673.76	191	206	TRUE	
SNU216LR_PC1_02	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	GRNDSGEENVPLDLTR	R	E	95.00%	2.65	0.316	0	1	0	0	2	1,851.82	17	32	TRUE	
SNU216LR_PC1_02	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	3.32	0.349	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	3	3	3	0.02%	1.80%	GPVGTVSEAQLAR	K	R	95.00%	2.07	0.357	0	1	0	0	2	1,364.66	168	180	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	3	3	3	0.02%	1.80%	HTIIPAKSPEK	R	C	95.00%	2.26	0.459	0	1	0	0	2	1,300.67	1908	1918	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	3	3	3	0.02%	1.80%	SRSLSQIHEAAVR	R	M	95.00%	2.79	0.349	0	0	1	0	2	1,533.75	727	739	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	3	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.84	0.369	0	2	0	0	2	1,876.68	490	504	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	3	0.02%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.31	0.229	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 11	IPI00007411,IPI00161614	163,031.60	99.80%	2	2	2	0.01%	1.63%	NVIPDTPPSTPLVPSR	R	A	95.00%	2.19	0.374	0	1	0	0	2	1,769.88	1095	1110	TRUE	
SNU216LR_PC1_02	A-kinase anchor protein 11	IPI00007411,IPI00161614	163,031.60	99.80%	2	2	2	0.01%	1.63%	SVSPTFLNPSDENLK	R	T	95.00%	3.26	0.458	0	1	0	0	2	1,727.79	1240	1254	TRUE	
SNU216LR_PC1_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	3	3	0.02%	7.12%	HKSDVEIPATVTAFSFEDDTVPLSPLK	R	Y	95.00%	5.45	0.565	0	0	1	0	2	3,023.47	400	426	TRUE	
SNU216LR_PC1_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	3	3	0.02%	7.12%	IEEVLSPEGSPSKSPSK	K	K	91.60%	2.95	0.175	0	0	1	0	2	1,850.88	636	652	TRUE	
SNU216LR_PC1_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	3	3	0.02%	7.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	5.31	0.386	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216LR_PC1_02	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.90%	2	3	3	0.02%	3.53%	SSSPGKPQAVSSLNSSHSR	R	S	95.00%	3.99	0.427	0	1	1	0	2	1,992.91	178	196	TRUE	
SNU216LR_PC1_02	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.90%	2	3	3	0.02%	3.53%	YPESNRTPVKPSSVEEEDSFFR	K	Q	95.00%	4.01	0.308	0	0	1	0	2	2,680.19	668	689	TRUE	
SNU216LR_PC1_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	99.30%	2	2	2	0.01%	2.23%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.28	0.101	0	1	0	0	2	2,020.86	302	320	TRUE	
SNU216LR_PC1_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	99.30%	2	2	2	0.01%	2.23%	SSLGQSASETEEDTVSVSKK	R	E	86.00%	3.01	0.0585	0	0	1	0	2	2,228.92	302	321	TRUE	
SNU216LR_PC1_02	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	2	2	2	0.01%	0.45%	SLQQLAEER	R	S	95.00%	1.91	0.24	0	1	0	0	2	1,153.53	1217	1225	TRUE	
SNU216LR_PC1_02	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	2	2	2	0.01%	0.45%	WRSLQQLAEER	R	S	95.00%	2.58	0.347	0	1	0	0	2	1,495.71	1215	1225	TRUE	
SNU216LR_PC1_02	Baculoviral IAP repeat-containing protein 6	IPI00299635	527,609.80	99.80%	1	1	1	0.01%	0.39%	LEGDSDDLLEDSDSEEHSR	K	S	95.00%	4.23	0.333	0	1	0	0	2	2,227.85	441	459	TRUE	
SNU216LR_PC1_02	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.33%	ASASRPQPAPADGADPPPAEEPEARPDGEC	R	A	95.00%	4.25	0.149	0	0	1	0	2	3,388.51	92	125	TRUE	
SNU216LR_PC1_02	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.33%	HQDGLPYIDDSPSSSPHLSSK	R	G	80.90%	2.56	0.174	0	0	1	0	2	2,347.02	449	469	TRUE	
SNU216LR_PC1_02	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.33%	PQPAPADGADPPPAEEPEARPDGEGSPGK	R	A	95.00%	3.7	0.345	0	0	1	0	2	2,916.27	97	125	TRUE	
SNU216LR_PC1_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	4	7	0.04%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4	0.39	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216LR_PC1_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	4	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.29	0.465	0	0	0	1	2	2,727.34	846	871	TRUE	
SNU216LR_PC1_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	4	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.8	0.461	0	0	3	2	2	3,113.52	846	874	TRUE	
SNU216LR_PC1_02	neuroblastoma-amplified protein	IPI00333913	268,577.00	99.80%	1	1	1	0.01%	0.84%	AGEEDEGEEDSDSDYEISAK	R	A	95.00%	4.09	0.479	0	1	0	0	2	2,254.80	463	482	TRUE	
SNU216LR_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	3.84%	EDPQARPLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	6.78	0.547	0	0	1	1	2	3,121.35	1851	1879	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	3.84%	KNSSTDQGSDEEGSLQK	R	E	95.00%	3.11	0.245	0	1	0	0	2	1,889.78	1081	1097	TRUE	
SNU216LR_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	3.84%	NSSTDQGSDEEGSLQK	K	E	95.00%	2.86	0.374	0	1	0	0	2	1,761.68	1082	1097	TRUE	
SNU216LR_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	3.84%	NSSTDQGSDEEGSLQKEQESAMDKHNLER	K	K	90.00%	4	0.0917	0	0	0	1	2	3,329.39	1082	1110	TRUE	
SNU216LR_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	3.84%	PLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	5.85	0.584	0	0	1	0	2	2,425.03	1857	1879	TRUE	
SNU216LR_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	6	7	8	0.05%	3.84%	RASWASENGETDAEGTQMTPAK	R	R	95.00%	2.98	0.448	0	2	0	0	2	2,496.97	1884	1905	TRUE	
SNU216LR_PC1_02	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	1	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	3.94	0.354	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	AAKLSEGSQPAEEEEDQETPSR	R	N	95.00%	4.93	0.564	0	2	1	0	2	2,468.05	236	257	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	AESPAEKVPEESVLPLVQK	K	S	95.00%	4.68	0.511	0	1	1	0	2	2,130.07	488	506	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	ASLVALPEQTASEEETPPPLLTK	K	E	95.00%	3.6	0.356	0	1	1	0	2	2,501.24	399	421	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	EASSPPPHPQLHSEEEIEPMEGPAPPVLIQLS	K	E	95.00%	4.57	0.41	0	0	0	1	2	4,490.09	422	462	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.63	0.458	0	2	0	0	2	1,578.65	832	847	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	GVPAGNSDTEGGQPGRK	K	R	81.80%	2.03	0.214	0	1	0	0	2	1,706.75	832	848	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	LSEGSQPAEEEEDQETPSR	K	N	95.00%	4.3	0.458	0	3	0	0	2	2,197.88	239	257	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	4.22	0.357	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.67	0.337	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	TAQVPSPPR	R	G	95.00%	2.27	0.374	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	TTSPLEEEER	K	E	95.00%	1.72	0.289	0	1	0	0	2	1,270.52	363	372	TRUE	
SNU216LR_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	12	16	21	0.13%	14.40%	TTSPLEEEEREIK	K	S	95.00%	2.23	0.308	0	1	0	0	2	1,640.74	363	375	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	3	3	0.02%	4.10%	DKEVSDDEAEEKEDK	R	E	95.00%	3.14	0.125	0	1	0	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	3	3	0.02%	4.10%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	3.82	0.322	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	3	3	0.02%	4.10%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.74	0.438	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC1_02	proteasome (prosome, macropain) activator subu	IPI00005260	198,366.10	99.80%	1	1	1	0.01%	0.75%	NPSINQILLSPEK	K	I	95.00%	3.4	0.413	0	1	0	0	2	1,532.77	998	1010	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEK	R	N	95.00%	5.32	0.557	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEKNETEPPK	R	G	95.00%	6.8	0.418	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEKNETEPPKGK	R	K	95.00%	3.95	0.143	0	0	1	0	2	3,454.51	412	441	TRUE	
SNU216LR_PC1_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	KDSNELSDSAGEEDSADLKR	K	A	95.00%	3.32	0.196	0	0	1	0	2	2,325.91	709	728	TRUE	
SNU216LR_PC1_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	KTESPIKLSPATPSR	K	K	95.00%	3.38	0.248	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216LR_PC1_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	SPPLPAVIR	R	N	95.00%	1.75	0.262	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216LR_PC1_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	4	4	0.02%	6.19%	SVAVSDEEEVEEEAER	R	R	95.00%	3.67	0.39	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	DSEDVSERDSDKEMATK	R	S	95.00%	3.89	0.409	0	2	1	0	2	2,021.80	111	127	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	EDEKGDDVDDPENQNSALADTDASGGLTK	K	Q	95.00%	7.45	0.0013	0	0	1	0	2	4,011.67	1696	1733	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	GLAEVQQDGEAEEGATSDGEK	K	K	95.00%	3.84	0.38	0	3	1	0	2	2,199.89	581	601	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	KDEGEGAAGAGDHQDPSLGAGEAASK	K	E	95.00%	4.35	0.236	0	0	1	0	2	2,505.05	202	227	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	LSAEYEKVELPSEEQVSGSQQPSEEKPAPLAT	R	I	95.00%	5.58	0.348	0	0	0	1	2	4,213.96	369	406	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	5.28	0.544	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	RPSESDKEDELDK	R	V	95.00%	2.27	0.268	0	1	0	0	2	1,627.69	624	636	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	SAESPTSPVTSETGSTFK	K	K	95.00%	4.05	0.0512	0	1	0	0	2	1,892.82	279	296	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	VELPSEEQVSGSQQPSEEKPAPLATEVFDEK	K	I	95.00%	4.59	0.516	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	10	12	15	0.09%	11.90%	VLSKPPEGVVSEVEMLSSQER	K	M	95.00%	3.87	0.329	0	0	1	0	2	2,380.15	487	507	TRUE	
SNU216LR_PC1_02	PREDICTED: RW1 protein isoform 1	IPI00401611	205,143.20	99.80%	2	2	2	0.01%	2.02%	DFDHHDSPALEVFTEQPPSPLPK	K	S	95.00%	4.5	0.463	0	0	1	0	2	2,683.21	1357	1379	TRUE	
SNU216LR_PC1_02	PREDICTED: RW1 protein isoform 1	IPI00401611	205,143.20	99.80%	2	2	2	0.01%	2.02%	RSSDPWSNSHFPHEN	R	-	95.00%	2.98	0.212	0	0	1	0	2	1,876.74	1869	1883	TRUE	
SNU216LR_PC1_02	Isoform 2 of Histone-lysine N-methyltransferase,	IPI00170643,IPI00289034	184,858.00	99.80%	2	2	2	0.01%	1.84%	GKGALGRELEPDASR	R	L	95.00%	2.74	0.185	0	0	1	0	2	1,635.79	675	689	TRUE	
SNU216LR_PC1_02	Isoform 2 of Histone-lysine N-methyltransferase,	IPI00170643,IPI00289034	184,858.00	99.80%	2	2	2	0.01%	1.84%	VAGPADAPMDSGAEEEK	K	A	95.00%	3.3	0.377	0	1	0	0	2	1,753.70	364	380	TRUE	
SNU216LR_PC1_02	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.07%	IIPELVGSPTQSTSSR	K	T	91.00%	2.7	0.113	0	1	0	0	2	1,751.86	1468	1483	TRUE	
SNU216LR_PC1_02	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.07%	LKAESISEEADSEPGR	K	S	95.00%	2.5	0.258	0	1	0	0	2	1,877.76	1782	1797	TRUE	
SNU216LR_PC1_02	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.07%	RLSLDIQSPPNIGLR	R	R	95.00%	3.24	0.456	0	1	1	0	2	1,758.93	694	708	TRUE	
SNU216LR_PC1_02	Midasin	IPI00167941	632,826.30	100.00%	1	2	2	0.01%	0.34%	AEENTDQASPQEDYAGFER	K	L	95.00%	4.73	0.59	0	1	1	0	2	2,236.87	4530	4548	TRUE	
SNU216LR_PC1_02	CREB-binding protein	IPI00023339,IPI00619932	265,331.20	99.90%	1	1	1	0.01%	0.49%	SISPSALQDLLR	R	T	95.00%	2.46	0.408	0	1	0	0	2	1,379.69	2061	2072	TRUE	
SNU216LR_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	203,354.00	100.00%	4	4	5	0.03%	3.17%	AASSPSNPAALPVASDSSPMGSK	K	T	95.00%	4.04	0.346	0	2	0	0	2	2,208.98	1105	1127	TRUE	
SNU216LR_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	203,354.00	100.00%	4	4	5	0.03%	3.17%	ETDSPSTPGKDQR	K	S	95.00%	2.81	0.326	0	1	0	0	2	1,497.62	1130	1142	TRUE	
SNU216LR_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	203,354.00	100.00%	4	4	5	0.03%	3.17%	GAGGSPVGVEEGLVNVGTGQK	K	L	95.00%	3.51	0.571	0	1	0	0	2	1,991.94	1370	1390	TRUE	
SNU216LR_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	203,354.00	100.00%	4	4	5	0.03%	3.17%	TKETDSPSTPGKDQR	K	S	95.00%	3.12	0.283	0	1	0	0	2	1,726.76	1128	1142	TRUE	
SNU216LR_PC1_02	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	1	1	1	0.01%	1.78%	TSSAFVGKTPEASPEPK	K	D	95.00%	2.51	0.296	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216LR_PC1_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	4.19%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.4	0.5	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216LR_PC1_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	4.19%	GLWSTDSAEEDKETK	R	R	95.00%	2.97	0.257	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216LR_PC1_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	4.19%	GLWSTDSAEEDKETKR	R	N	95.00%	3.04	0.279	0	0	1	0	2	1,931.84	397	412	TRUE	
SNU216LR_PC1_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	6	0.04%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	5.29	0.458	0	3	0	0	2	2,279.96	480	500	TRUE	
SNU216LR_PC1_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	6	0.04%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	3	0.428	0	1	0	0	2	1,925.87	463	479	TRUE	
SNU216LR_PC1_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	6	0.04%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4.31	0.411	0	1	1	0	2	2,270.04	460	479	TRUE	
SNU216LR_PC1_02	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	2	2	2	0.01%	2.89%	LRRPSVNGEPGSVPPPR	R	A	95.00%	3.54	0.273	0	0	1	0	2	1,894.96	1253	1269	TRUE	
SNU216LR_PC1_02	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	2	2	2	0.01%	2.89%	PSDVGNLDDFAESDEDEAHGPGAPEAR	K	A	95.00%	4.68	0.511	0	0	1	0	2	2,877.15	179	205	TRUE	
SNU216LR_PC1_02	CDNA FLJ40166 fis, clone TESTI2016197	IPI00030790,IPI00297877	56,309.10	99.80%	2	2	2	0.01%	6.92%	SSPGPDTLVVLEFNPASK	R	S	95.00%	3.24	0.5	0	1	0	0	2	1,937.93	160	177	TRUE	
SNU216LR_PC1_02	CDNA FLJ40166 fis, clone TESTI2016197	IPI00030790,IPI00297877	56,309.10	99.80%	2	2	2	0.01%	6.92%	VVSPTKEQVSDTEDKQR	R	M	95.00%	4.65	0.505	0	0	1	0	2	2,025.95	359	375	TRUE	
SNU216LR_PC1_02	Shroom-related protein	IPI00152881	216,663.20	100.00%	3	3	3	0.02%	3.26%	DRPGSPESPLLDAPFSR	R	A	95.00%	3.63	0.313	0	0	1	0	2	1,920.89	905	921	TRUE	
SNU216LR_PC1_02	Shroom-related protein	IPI00152881	216,663.20	100.00%	3	3	3	0.02%	3.26%	PSSAHVGLRSPEASASASPHTPR	R	E	95.00%	4.65	0.453	0	0	0	1	2	2,379.12	960	982	TRUE	
SNU216LR_PC1_02	Shroom-related protein	IPI00152881	216,663.20	100.00%	3	3	3	0.02%	3.26%	SPFIEEQLHTVLEKSPENSPPVKPK	K	H	88.60%	3	0.164	0	0	0	1	2	2,910.47	424	448	TRUE	
SNU216LR_PC1_02	COPA protein	IPI00646493	139,327.40	100.00%	2	2	2	0.01%	1.05%	KNLSPGAVESDVR	K	G	95.00%	3.04	0.418	0	1	0	0	2	1,451.69	170	182	TRUE	
SNU216LR_PC1_02	COPA protein	IPI00646493	139,327.40	100.00%	2	2	2	0.01%	1.05%	NLSPGAVESDVR	K	G	95.00%	2.84	0.448	0	1	0	0	2	1,323.59	171	182	TRUE	
SNU216LR_PC1_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	3	0.02%	1.68%	AEDSDSEPEPEDNVR	K	L	95.00%	2.4	0.37	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216LR_PC1_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	3	0.02%	1.68%	KAEDSDSEPEPEDNVR	R	L	95.00%	3.45	0.434	0	2	0	0	2	1,976.72	495	510	TRUE	
SNU216LR_PC1_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	RPESPSEISPIK	K	G	95.00%	2.48	0.214	0	1	0	0	2	1,419.69	262	273	TRUE	
SNU216LR_PC1_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	RPESPSEISPIKGSVR	K	T	95.00%	2.83	0.372	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216LR_PC1_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.12	0.197	0	1	0	0	2	2,653.07	108	131	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00018321	143,159.40	100.00%	2	3	3	0.02%	2.01%	GESAPVRKNTR	K	Q	95.00%	1.99	0.308	0	1	0	0	2	1,374.59	1188	1198	TRUE	
SNU216LR_PC1_02	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00018321	143,159.40	100.00%	2	3	3	0.02%	2.01%	NYGYNPSPVKPEGLR	R	R	95.00%	2.9	0.37	0	1	1	0	2	1,770.82	1060	1074	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	3	3	3	0.02%	1.36%	KLANDFPLDLSPVK	R	K	95.00%	3.44	0.442	0	1	0	0	2	1,636.83	678	691	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	3	3	3	0.02%	1.36%	LANDFPLDLSPVK	K	K	95.00%	2.13	0.317	0	1	0	0	2	1,508.74	679	691	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	3	3	3	0.02%	1.36%	NNSRVSPVPLSGAAAGTEQK	R	T	95.00%	3.07	0.255	0	0	1	0	2	2,062.99	2167	2186	TRUE	
SNU216LR_PC1_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSSLTNDVAK	K	Q	95.00%	5.17	0.15	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216LR_PC1_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	4.1	0.391	0	1	0	0	2	1,896.90	850	867	TRUE	
SNU216LR_PC1_02	Isoform 1 of A-kinase anchor protein 9	IPI00019223,IPI00220624,IP	455,420.10	100.00%	1	1	1	0.01%	0.82%	EEEFGVDDSYSEQGAQDSPTHLEMMESELA	R	Q	95.00%	6.61	0.0377	0	0	1	0	2	3,625.45	148	179	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	AVIVSSPK	K	A	95.00%	2.11	0.34	1	1	0	0	2	880.454	1396	1403	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	HLEAADKGHSPAQKPK	K	T	95.00%	4.51	0.531	0	1	1	1	2	1,793.87	596	611	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	IDLPEVQIEHDPELEKESPGLK	K	N	95.00%	4.71	0.331	0	0	1	0	2	2,595.26	1083	1104	TRUE	
SNU216LR_PC1_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	SRSPMHYMYRPR	R	S	95.00%	2.5	0.286	0	0	0	1	2	1,660.72	508	519	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	SPEPEATLTFPFLDK	K	M	95.00%	3.37	0.389	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216LR_PC1_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	4.18	0.505	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216LR_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	7	9	9	0.06%	4.85%	AFGPGLQGGSAGSPAR	K	F	95.00%	3.01	0.391	0	1	0	0	2	1,509.68	1071	1086	TRUE	
SNU216LR_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	7	9	9	0.06%	4.85%	EGPYSISVLYGDEEVPRSPFK	K	V	95.00%	4.05	0.408	0	1	1	0	2	2,449.13	1515	1535	TRUE	
SNU216LR_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	7	9	9	0.06%	4.85%	FADQHVPGSPFSVK	K	V	95.00%	2.8	0.294	0	1	0	0	2	1,595.73	2119	2132	TRUE	
SNU216LR_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	7	9	9	0.06%	4.85%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	4.92	0.441	0	1	1	0	2	2,547.16	2310	2332	TRUE	
SNU216LR_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	7	9	9	0.06%	4.85%	GAGSYTIMVLFADQATPTSPIR	R	V	95.00%	3.95	0.428	0	1	0	0	2	2,376.13	841	862	TRUE	
SNU216LR_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	7	9	9	0.06%	4.85%	IPEISIQDMTAQVTSPSGK	K	T	95.00%	4.18	0.446	0	0	1	0	2	2,081.98	2165	2183	TRUE	
SNU216LR_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	7	9	9	0.06%	4.85%	RLTVSSLQESGLK	R	V	95.00%	2.73	0.301	0	1	0	0	2	1,497.77	2333	2345	TRUE	
SNU216LR_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	5	6	6	0.04%	4.63%	DDATPVRDEPMDAESITFK	K	S	95.00%	2.82	0.221	0	1	0	0	2	2,216.94	804	822	TRUE	
SNU216LR_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	5	6	6	0.04%	4.63%	LEVTEIVKPSPK	K	R	95.00%	3.26	0.344	0	1	1	0	2	1,419.75	993	1004	TRUE	
SNU216LR_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	5	6	6	0.04%	4.63%	NLQPLMRSPISR	R	Q	95.00%	3.33	0.323	0	1	0	0	2	1,491.75	176	187	TRUE	
SNU216LR_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	5	6	6	0.04%	4.63%	VTGTEGSSSTLVDYTSTSSTGGSPVR	K	K	95.00%	4.47	0.0616	0	1	0	0	2	2,613.16	1078	1103	TRUE	
SNU216LR_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	5	6	6	0.04%	4.63%	WDKDDFESEEEDVK	K	S	95.00%	3.37	0.223	0	1	0	0	2	1,850.70	1144	1157	TRUE	
SNU216LR_PC1_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	2	2	2	0.01%	2.72%	SEDESETEDEEEK	R	S	95.00%	1.65	0.517	0	1	0	0	2	1,715.51	668	680	TRUE	
SNU216LR_PC1_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	2	2	2	0.01%	2.72%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	5.41	0.587	0	0	1	0	2	2,764.06	668	689	TRUE	
SNU216LR_PC1_02	Diacylglycerol O-acyltransferase 1	IPI00015799,IPI00735571,IP	55,280.00	99.80%	1	1	1	0.01%	4.30%	TGSRPSSHGGGGPAAAEEEVR	R	D	95.00%	3.18	0.279	0	0	1	0	2	2,088.91	12	32	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	GPKPEPPGSGSPAPPR	R	R	95.00%	3.47	0.517	0	2	0	0	2	1,607.76	730	745	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	GPKPEPPGSGSPAPPRR	R	R	95.00%	3.37	0.414	0	0	1	0	2	1,763.86	730	746	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	KPSVSEEVQATPNK	R	A	95.00%	4.35	0.552	0	1	0	0	2	1,593.75	1105	1118	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	QEPGGSHGSETEDTGR	K	S	95.00%	3.01	0.483	0	1	0	0	2	1,723.66	645	660	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	SWGHESPEER	R	H	95.00%	1.92	0.238	0	1	0	0	2	1,293.49	1009	1018	TRUE	
SNU216LR_PC1_02	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	2	2	3	0.02%	3.56%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	3.68	0.516	0	0	2	0	2	3,364.33	341	369	TRUE	
SNU216LR_PC1_02	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	2	2	3	0.02%	3.56%	EKLQSFDSPER	R	K	95.00%	2.53	0.22	0	1	0	0	2	1,415.62	1018	1028	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.57%	AFKPEETSSNSDPPSPPVLNNSHPVPR	R	S	95.00%	4.06	0.454	0	0	1	1	2	2,980.38	641	667	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.57%	KPISDNSFSSDEEQSTGPIK	R	Y	95.00%	3.37	0.203	0	1	1	0	2	2,325.95	1295	1314	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.57%	LDSSPVSSPR	R	K	95.00%	2.12	0.324	0	1	0	0	2	1,124.50	946	955	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.57%	SFLESNYFTKPNLK	R	H	95.00%	2.94	0.316	0	1	0	0	2	1,767.84	1046	1059	TRUE	
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	AGTPIRDSHSPDLQLPTPEVIPSSGSK	K	L	95.00%	5.16	0.394	0	0	1	0	2	2,866.40	310	336	TRUE	
SNU216LR_PC1_02	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	DSHSPDLQLPTPEVIPSSGSK	R	L	95.00%	3.39	0.327	0	0	1	0	2	2,271.05	316	336	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	4	4	5	0.03%	3.82%	HFSTLKDDDLVEFSDLESEDDERPR	R	S	95.00%	4.26	0.234	0	0	0	1	2	3,074.33	1272	1296	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	4	4	5	0.03%	3.82%	NTSSDNSDVEVMPAQSPR	R	E	95.00%	3.52	0.378	0	2	0	0	2	2,013.82	412	429	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	4	4	5	0.03%	3.82%	TASPLPLRPDAPVEKSPEETATQVPSLESLTLI	R	L	95.00%	5.59	0.118	0	0	1	0	2	3,581.84	1858	1890	TRUE	
SNU216LR_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	4	4	5	0.03%	3.82%	VSPSDTTPLVSR	R	S	95.00%	2.62	0.361	0	1	0	0	2	1,338.63	1910	1921	TRUE	
SNU216LR_PC1_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.68	0.316	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC1_02	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.94%	AKSEDSDVELSD	K	-	94.30%	1.66	0.28	0	1	0	0	2	1,454.50	1392	1403	TRUE	
SNU216LR_PC1_02	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.94%	RVTQHESDNENEIQIQNK	R	L	95.00%	3.75	0.204	0	1	0	0	2	2,262.01	61	78	TRUE	
SNU216LR_PC1_02	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.94%	VTQHESDNENEIQIQNK	R	L	95.00%	4.48	0.317	0	1	1	0	2	2,105.91	62	78	TRUE	
SNU216LR_PC1_02	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	100.00%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGGSSASGLAK	K	V	95.00%	4.45	0.202	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	7	9	14	0.09%	4.85%	KNSLISSLEEEVSILNR	R	Q	95.00%	4.28	0.47	0	2	2	0	2	2,011.01	1223	1239	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	7	9	14	0.09%	4.85%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	3.09	0.347	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	7	9	14	0.09%	4.85%	LPPKVESLESLYFTPIPAR	R	S	95.00%	3.6	0.451	0	0	1	0	2	2,237.16	1763	1781	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	7	9	14	0.09%	4.85%	QAASPLEPK	K	E	88.80%	1.75	0.216	0	1	0	0	2	1,020.48	268	276	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	7	9	14	0.09%	4.85%	RVSLEPHQGPGTPESK	K	K	95.00%	3.22	0.315	0	0	1	0	2	1,798.85	1989	2004	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	7	9	14	0.09%	4.85%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.39	0.512	0	3	2	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	7	9	14	0.09%	4.85%	VSLEPHQGPGTPESK	R	K	95.00%	2.94	0.295	0	1	0	0	2	1,642.75	1990	2004	TRUE	
SNU216LR_PC1_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	6	8	0.05%	5.33%	ENPPVEDSSDEDDKR	R	N	95.00%	3.02	0.497	0	2	1	0	2	1,811.70	491	505	TRUE	
SNU216LR_PC1_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	6	8	0.05%	5.33%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	4.24	0.391	0	1	2	0	2	2,824.10	491	513	TRUE	
SNU216LR_PC1_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	6	8	0.05%	5.33%	HKSSLNSSPWSGLMALGNSR	K	H	95.00%	3.21	0.268	0	0	1	0	2	2,209.02	11	30	TRUE	
SNU216LR_PC1_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	4	6	8	0.05%	5.33%	RENPPVEDSSDEDDKR	K	N	95.00%	3.51	0.417	0	1	0	0	2	2,047.76	490	505	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	3	0.02%	2.47%	ELEQHIQTSDPENFQSEER	R	S	95.00%	4.15	0.381	0	0	1	0	2	2,396.00	837	855	TRUE	
SNU216LR_PC1_02	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	3	0.02%	2.47%	LFVLLPEQSPVSYSK	R	R	95.00%	2.98	0.319	0	2	0	0	2	1,786.90	736	750	TRUE	
SNU216LR_PC1_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	6	0.04%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.7	0.349	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216LR_PC1_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	6	0.04%	6.17%	WLDESDAEMELR	R	A	95.00%	2.59	0.334	0	5	0	0	2	1,573.62	110	121	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	99.50%	2	2	2	0.01%	7.72%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	5.48	0.565	0	0	1	0	2	3,107.21	566	591	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	99.50%	2	2	2	0.01%	7.72%	SWASLFHDSKPSSSSPVAYVETKYSPPAISPL	K	Q	89.90%	5.44	0.0318	0	0	0	1	2	3,958.92	346	381	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	10.40%	LPLVPESPRR	R	M	95.00%	2.17	0.203	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	10.40%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	3.28	0.478	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	10.40%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	3.74	0.513	0	1	1	0	2	2,008.94	381	399	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	10.40%	SQDATFSPGSEQAEK	R	S	95.00%	2.93	0.237	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	10.40%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	4.82	0.162	0	0	1	0	2	2,455.11	329	351	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	9	0.06%	15.70%	IPGGNIYISPLKSPYK	R	I	95.00%	2.84	0.324	0	1	0	0	2	1,826.95	799	814	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	9	0.06%	15.70%	ISEGLPTPTKMTPR	K	S	95.00%	2.36	0.207	0	1	0	0	2	1,607.79	815	828	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	9	0.06%	15.70%	KSNLDEEVNVIPPHTPVR	R	T	95.00%	4.05	0.301	0	0	1	0	2	2,124.05	359	376	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	9	0.06%	15.70%	KTAATAAAAAAEPPAPPPPPPPEEDPEQDS(	R	L	95.00%	7.28	0.621	0	0	1	1	2	3,976.89	8	46	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	9	0.06%	15.70%	LFLDHDKTLQTDSIDSFETQRTPR	R	K	95.00%	5.48	0.411	0	0	1	1	2	2,943.39	335	358	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	9	0.06%	15.70%	LKTNILQYASTRPPTLSPIPHIPR	R	S	95.00%	3.31	0.412	0	0	0	1	2	2,793.52	764	787	TRUE	
SNU216LR_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	7	9	9	0.06%	15.70%	TAVIPINGSPR	K	T	95.00%	2.3	0.347	0	1	0	0	2	1,204.61	241	251	TRUE	
SNU216LR_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	5	6	6	0.04%	5.34%	IDTHPSPSHSSTVK	K	D	95.00%	2.79	0.262	0	0	1	0	2	1,572.71	1337	1350	TRUE	
SNU216LR_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	5	6	6	0.04%	5.34%	KIDTHPSPSHSSTVK	R	D	95.00%	2.89	0.194	0	0	1	0	2	1,700.80	1336	1350	TRUE	
SNU216LR_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	5	6	6	0.04%	5.34%	LYINHTPPPLSKSKER	K	E	95.00%	2.91	0.263	0	0	1	1	2	1,960.01	1363	1378	TRUE	
SNU216LR_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	5	6	6	0.04%	5.34%	NAVASVQNGPGGGPSSSSIGSASKSDESST	R	E	93.60%	5.48	0.0442	0	0	1	0	2	3,647.59	1118	1154	TRUE	
SNU216LR_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	5	6	6	0.04%	5.34%	TPVSGSLKSPVPR	K	S	95.00%	2.28	0.257	0	0	1	0	2	1,404.72	1308	1320	TRUE	
SNU216LR_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	AATTATPAATTSPK	K	E	95.00%	2.72	0.296	0	1	0	0	2	1,368.64	1111	1124	TRUE	
SNU216LR_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	FSPFLQTAEDNTQDEVAGAPADHHGPSDE	K	L	95.00%	3.97	0.227	0	0	0	1	2	4,129.72	1193	1230	TRUE	
SNU216LR_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	IHEKDPNSATATAPPSPLK	K	R	95.00%	3.05	0.224	0	0	1	0	2	2,054.00	146	164	TRUE	
SNU216LR_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	QVAGDAPVEQATAETASPVHR	R	E	95.00%	4.2	0.222	0	0	1	0	2	2,214.02	1359	1379	TRUE	
SNU216LR_PC1_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.2	0.381	0	1	1	0	2	1,656.70	340	354	TRUE	
SNU216LR_PC1_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.07	0.338	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	P	95.00%	3.53	0.449	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.29	0.333	0	0	1	0	2	3,054.38	939	964	TRUE	
SNU216LR_PC1_02	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	5	0.03%	4.36%	FHSPSTTWSPNK	R	D	87.80%	2.28	0.139	0	1	0	0	2	1,468.63	479	490	TRUE	
SNU216LR_PC1_02	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	5	0.03%	4.36%	FHSPSTTWSPNKDTPQEK	R	K	95.00%	3.93	0.468	0	0	2	0	2	2,166.95	479	496	TRUE	
SNU216LR_PC1_02	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	5	0.03%	4.36%	TEELIESPKLESSEGEIIQTVDR	K	Q	95.00%	5.26	0.445	0	0	1	0	2	2,682.28	287	309	TRUE	
SNU216LR_PC1_02	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	5	0.03%	4.36%	VKDSSPGEK	R	S	82.10%	1.61	0.246	0	1	0	0	2	1,026.45	583	591	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	AALAPAKESPR	R	K	95.00%	2.33	0.498	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	AALAPAKESPRK	R	G	95.00%	2.66	0.22	0	1	1	0	2	1,318.69	821	832	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	KLSGDQPAAR	R	T	95.00%	2.04	0.318	0	1	0	0	2	1,122.53	1271	1280	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	LDSSPSVSSTLAAK	K	D	83.60%	2.77	0.0729	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.13	0.0806	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	PTSSPAKGPPQK	K	A	95.00%	3.02	0.338	0	1	1	0	2	1,274.61	503	514	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	QEAKPQQAAGMLSPK	K	T	95.00%	2.7	0.221	0	1	0	0	2	1,663.79	1168	1182	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	RKLSGDQPAAR	K	T	88.70%	2.81	0.156	0	0	1	0	2	1,278.63	1270	1280	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	SAEPSANTTLVSETEEEGSVPAFGAAAK	K	P	95.00%	5.01	0.0799	0	0	1	0	2	2,830.27	160	187	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	SLGNILQAKPTSSPAK	K	G	95.00%	3.51	0.455	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.15	0.475	0	0	2	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	TQPSSGVDSAVGTLPATSPQSTSVQAK	R	G	95.00%	4.84	0.0142	0	1	0	0	2	2,681.27	1017	1043	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	TSQVGAASAPAKESPR	K	K	95.00%	3.15	0.42	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	TSQVGAASAPAKESPRK	K	G	95.00%	3.79	0.489	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	21	22	0.14%	12.60%	TVANLLSGKSPR	K	K	95.00%	2.87	0.343	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nance-Horan syndrome protein	IPI00375220,IPI00554497,IP	160,797.50	99.90%	2	2	2	0.01%	0.92%	RVQQEIDSDESPVAR	R	E	95.00%	3.03	0.409	0	1	0	0	2	1,808.82	231	245	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nance-Horan syndrome protein	IPI00375220,IPI00554497,IP	160,797.50	99.90%	2	2	2	0.01%	0.92%	VQQEIDSDESPVAR	R	E	95.00%	2.49	0.215	0	1	0	0	2	1,652.72	232	245	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	4.02	0.371	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.22	0.361	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	7.71	0.588	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	6.24%	DKASPEPEKDFSEK	K	A	95.00%	2.92	0.236	0	0	1	0	2	1,686.73	684	697	TRUE	
SNU216LR_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	6.24%	ELSESVQQQSTPVPLISPK	K	R	95.00%	2.9	0.363	0	1	1	0	2	2,147.06	550	568	TRUE	
SNU216LR_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	6.24%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.38	0.467	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	6.24%	RISLSDMPR	R	S	95.00%	1.88	0.276	0	1	0	0	2	1,154.54	442	450	TRUE	
SNU216LR_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	6.24%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.63	0.38	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216LR_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	6.24%	VKLNFDMTASPK	K	I	81.80%	1.95	0.194	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	AADISLDNLVEGK	K	R	95.00%	2.47	0.314	0	1	0	0	2	1,424.67	1614	1626	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	EEKSVEYEGDLK	K	S	95.00%	2.81	0.404	0	1	0	0	2	1,505.64	806	817	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	89.30%	5.55	0.0281	0	0	1	0	2	4,155.93	277	312	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	ETAVPGPLGIEDISPNLSPDDK	R	S	95.00%	3.26	0.495	0	0	1	0	2	2,344.10	1413	1434	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	ETAVPGPLGIEDISPNLSPDDKSFSR	R	V	95.00%	3.86	0.374	0	0	1	0	2	2,821.33	1413	1438	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	GGPGKLSPR	R	K	84.70%	1.48	0.268	0	1	0	0	2	948.4665	1356	1364	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	GNLLHFPSSQGEEEK	R	E	95.00%	2.83	0.284	0	1	0	0	2	1,751.76	1060	1074	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	GNLLHFPSSQGEEEKEK	R	L	95.00%	3.7	0.466	0	1	0	0	2	2,008.90	1060	1076	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	GNLLHFPSSQGEEEKEKLEGDHTIR	R	Q	95.00%	4.32	0.35	0	0	1	0	2	2,930.37	1060	1084	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	95.00%	3.53	0.368	0	0	0	1	2	4,330.76	1201	1238	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	5.41	0.491	0	1	1	0	2	2,641.12	536	558	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	KLITSEEERSPAK	R	R	95.00%	2.91	0.238	0	1	1	0	2	1,567.77	1669	1681	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	KNGSTAVAESVASPQK	R	T	95.00%	3.85	0.433	0	1	0	0	2	1,653.78	1016	1031	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	LDTKEEKSVEYEGDLK	K	S	95.00%	3.67	0.291	0	1	1	0	2	1,962.89	802	817	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	LITSEEERSPAK	K	R	91.20%	2.2	0.164	0	1	0	0	2	1,439.68	1670	1681	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	LSDVDANTAIKHEEQSNEDIPIAEQSSK	R	D	95.00%	4.8	0.395	0	0	1	0	2	3,148.43	207	234	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	LVSPETEASEESLQFNLEKPATGER	K	K	95.00%	4.33	0.332	0	0	2	0	2	2,841.32	991	1015	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.07	0.504	0	1	1	0	2	2,539.15	1107	1129	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	6.92	0.591	0	1	2	0	2	2,881.31	1107	1132	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	NGSTAVAESVASPQK	K	T	95.00%	3.09	0.385	0	1	0	0	2	1,525.69	1017	1031	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	QDKPMDTSVLSEEGGEPFQKK	R	L	95.00%	3.56	0.209	0	0	1	0	2	2,430.09	388	408	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	4.97	0.479	0	1	4	1	2	2,457.22	1085	1106	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	5.62	0.46	0	0	1	0	2	3,282.51	1459	1490	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	SDSPEIPFQAAAGPSDGLDASSPGNSFVGLF	R	V	95.00%	4.86	0.361	0	0	1	0	2	3,126.41	1460	1490	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	SEDMPFSPK	R	A	95.00%	2.3	0.341	1	2	0	0	2	1,117.43	259	267	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	SEDPPTTPIR	R	G	95.00%	1.96	0.23	0	1	0	0	2	1,192.52	1050	1059	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	SGTAETEPVEQDSSQPSLPLVR	K	A	95.00%	4.89	0.543	0	1	0	0	2	2,407.10	818	839	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	SNVSSPATPTASSSSSTTPTR	R	K	95.00%	4.63	0	0	1	0	0	2	2,102.92	1631	1651	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	SPEPEVLSTQEDLFDQSNK	K	T	95.00%	4.75	0.554	0	1	0	0	2	2,242.98	294	312	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	STPFIVPSSPTEQEGR	R	Q	95.00%	3.07	0.432	0	1	1	0	2	1,811.82	372	387	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	STPFIVPSSPTEQEGRQDKPMDTSVLSEEGG	R	K	87.90%	6.01	0.0097	0	0	1	1	2	4,014.83	372	407	TRUE	
SNU216LR_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	32	42	48	0.29%	23.60%	TSSGTSLSAMHSSGSSGK	R	G	83.50%	3.21	0.0304	0	1	0	0	2	1,748.72	1315	1332	TRUE	
SNU216LR_PC1_02	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	98.70%	1	1	1	0.01%	1.56%	VQAYEEPSVASSPNGK	R	E	95.00%	3.55	0.497	0	1	0	0	2	1,742.76	719	734	TRUE	
SNU216LR_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	7	9	11	0.07%	4.68%	KKPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	5.4	0.466	0	1	1	0	2	2,321.10	1391	1413	TRUE	
SNU216LR_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	7	9	11	0.07%	4.68%	KPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	4.43	0.106	0	1	0	0	2	2,193.01	1392	1413	TRUE	
SNU216LR_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	7	9	11	0.07%	4.68%	LPELDPRGSDEENLDSETSASTESLLEER	R	A	95.00%	5.84	0.44	0	0	1	0	2	3,298.45	1985	2013	TRUE	
SNU216LR_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	7	9	11	0.07%	4.68%	SPLEHSSPEK	R	E	95.00%	2.39	0.169	0	1	0	0	2	1,190.51	1109	1118	TRUE	
SNU216LR_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	7	9	11	0.07%	4.68%	SPLEHSSPEKEAPSPEK	R	T	95.00%	3.33	0.37	0	2	0	0	2	2,008.83	1109	1125	TRUE	
SNU216LR_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	7	9	11	0.07%	4.68%	VQEKPDSPGGSTQIQR	R	Y	95.00%	3.69	0.347	0	1	1	0	2	1,806.84	1284	1299	TRUE	
SNU216LR_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	7	9	11	0.07%	4.68%	VSPPAPGSAPETPEDK	R	S	95.00%	2.88	0.334	0	2	0	0	2	1,658.73	1260	1275	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	10	11	0.07%	6.09%	DNSTMGYMMAK	R	K	95.00%	1.06	0.435	0	0	1	0	2	1,488.40	612	622	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	10	11	0.07%	6.09%	EISDDEAEEEKGEK	K	E	95.00%	3.68	0.394	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	10	11	0.07%	6.09%	EKEISDDEAEEEK	R	G	95.00%	3.02	0.431	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	10	11	0.07%	6.09%	EKEISDDEAEEEKGEK	R	E	95.00%	3.39	0.419	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	10	11	0.07%	6.09%	IEDVGSDEEDDSGK	K	D	95.00%	3.02	0.513	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	10	11	0.07%	6.09%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.69	0.507	0	1	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	10	11	0.07%	6.09%	IEDVGSDEEDDSGKDKK	K	K	95.00%	2.67	0.436	0	2	1	0	2	2,025.76	249	265	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	ADEGKKETSPESSLIQDEIAVK	K	L	95.00%	4.05	0.233	0	0	1	0	2	2,454.17	1147	1168	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	DGSPEAPASPEREEVALSEYK	K	T	95.00%	2.79	0.378	0	1	1	0	2	2,420.99	1345	1365	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	ESQPSPPAQEAGYSTLAQSYPSDLPEEPSSP	K	M	95.00%	4.21	0.372	0	0	1	0	2	3,739.63	625	658	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	ETSPESSLIQDEIAVK	K	L	95.00%	3.39	0.418	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	GHDLSPLASDILTNTSGSMDEGDDYLPATTI	R	A	87.70%	5.79	0.0286	0	0	1	0	2	3,711.66	721	755	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	4.19	0.415	0	1	1	0	2	2,144.06	275	293	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	RKSVPSETVVEDSR	R	T	95.00%	3.09	0.292	0	1	1	0	2	1,668.80	831	844	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	RPSPHDEEEFEVEEAAEAQAEPK	R	D	95.00%	5.7	0.444	0	0	1	0	2	2,704.14	1322	1344	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	SVPSETVVEDSR	K	T	95.00%	2.17	0.424	0	1	0	0	2	1,384.60	833	844	TRUE	
SNU216LR_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	10	13	13	0.08%	9.96%	VDHGAEIITQSPGR	R	S	95.00%	3.31	0.498	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	7	8	8	0.05%	5.67%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	3.03	0.415	0	1	1	0	2	2,327.88	548	567	TRUE	
SNU216LR_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	7	8	8	0.05%	5.67%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	2.47	0.274	0	0	1	0	2	2,563.19	145	166	TRUE	
SNU216LR_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	7	8	8	0.05%	5.67%	LLSPRPSLLTPTGDPR	R	A	95.00%	3.27	0.313	0	0	1	0	2	1,799.94	937	952	TRUE	
SNU216LR_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	7	8	8	0.05%	5.67%	PASHSHAHQHSPISPR	R	T	95.00%	2.4	0.218	0	0	1	0	2	1,905.79	1858	1873	TRUE	
SNU216LR_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	7	8	8	0.05%	5.67%	SLGYHGSSYSPEGVEPVSPVSSPSLTHDK	R	G	83.80%	4.99	0.0369	0	0	1	0	2	3,160.35	2047	2075	TRUE	
SNU216LR_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	7	8	8	0.05%	5.67%	TDDTSGEDNDEKEAVASK	K	G	95.00%	2.84	0.274	0	1	0	0	2	2,070.74	550	567	TRUE	
SNU216LR_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	7	8	8	0.05%	5.67%	VHEPPREDAAPTKPAPPAPPPPQNLQPESD	K	G	95.00%	4.68	0.489	0	0	0	1	2	4,265.04	981	1020	TRUE	
SNU216LR_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.02%	5.20%	GPTSTSIDNIDGTPVRDER	R	S	95.00%	2.44	0.248	0	1	0	0	2	2,109.95	685	703	TRUE	
SNU216LR_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.02%	5.20%	SATPEPVTDNR	K	D	95.00%	1.83	0.301	0	1	0	0	2	1,266.54	330	340	TRUE	
SNU216LR_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.02%	5.20%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	4.37	0.0644	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216LR_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.02%	5.20%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	4.66	0.43	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216LR_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	4	6	6	0.04%	2.76%	AAHVPENSDTEQDVLTVKPVR	R	K	95.00%	4.91	0.499	0	0	1	1	2	2,385.14	1363	1383	TRUE	
SNU216LR_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	4	6	6	0.04%	2.76%	AAHVPENSDTEQDVLTVKPVRK	R	V	95.00%	4.32	0.386	0	0	1	1	2	2,513.24	1363	1384	TRUE	
SNU216LR_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	4	6	6	0.04%	2.76%	RHSAQLSSDHIIPLMHLAK	R	D	95.00%	3.37	0.4	0	0	0	1	2	2,234.13	935	953	TRUE	
SNU216LR_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	4	6	6	0.04%	2.76%	SLSESSVIMDR	R	A	95.00%	2.16	0.287	0	1	0	0	2	1,303.56	859	869	TRUE	
SNU216LR_PC1_02	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	3.70%	AHSPALGVHSFSGVQR	R	F	95.00%	3.18	0.383	0	0	1	0	2	1,729.82	353	368	TRUE	
SNU216LR_PC1_02	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	3.70%	NFDFEGSLSPVIAPK	R	K	95.00%	3.05	0.239	0	1	0	0	2	1,700.79	680	694	TRUE	
SNU216LR_PC1_02	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	3.70%	QLQPASELWSSDGAAGLVGSLQEVTIHEK	R	Q	95.00%	3.88	0.43	0	0	1	0	2	3,130.51	41	69	TRUE	
SNU216LR_PC1_02	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	3.70%	SPSISNMAALSR	R	A	93.70%	1.83	0.261	0	1	0	0	2	1,313.59	341	352	TRUE	
SNU216LR_PC1_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	HEHPPNPPVSPGK	R	T	95.00%	3.04	0.391	0	0	1	0	2	1,472.67	664	676	TRUE	
SNU216LR_PC1_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	MESSFGSPSKQESSESLPK	K	E	95.00%	4.51	0.0219	0	1	0	0	2	2,121.90	471	489	TRUE	
SNU216LR_PC1_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	RHEHPPNPPVSPGK	K	T	95.00%	3.21	0.318	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216LR_PC1_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	SKSEDMDNVQSK	R	R	95.00%	2.93	0.288	0	1	0	0	2	1,447.58	557	568	TRUE	
SNU216LR_PC1_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	2	2	2	0.01%	2.97%	ILATDVSSKNTPDSK	K	K	95.00%	2.71	0.231	0	1	0	0	2	1,655.79	120	134	TRUE	
SNU216LR_PC1_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	2	2	2	0.01%	2.97%	SEESPVYSNSSVR	K	N	95.00%	2.37	0.244	0	1	0	0	2	1,520.63	535	547	TRUE	
SNU216LR_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	7	8	0.05%	2.35%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.6	0.47	0	1	0	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	7	8	0.05%	2.35%	AQLEPVASPAK	K	K	95.00%	2.49	0.285	1	0	0	0	2	1,190.58	1428	1438	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	7	8	0.05%	2.35%	ARSDEGQLSPATR	R	G	95.00%	3.46	0.427	0	0	1	0	2	1,467.66	712	724	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	7	8	0.05%	2.35%	GYYSPYSVSGSGSTAGSR	K	T	94.00%	3.59	0.0341	0	1	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	7	8	0.05%	2.35%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	2.59	0.185	0	1	0	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	7	8	0.05%	2.35%	SDEGQLSPATR	R	G	95.00%	2.29	0.301	0	1	0	0	2	1,240.52	714	724	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	7	8	0.05%	2.35%	SSSVGSSSSYPISPAVSR	R	T	92.90%	3.75	0.0309	0	2	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	9	10	0.06%	4.88%	DTEQKELDQDMVTEDEDDPGSHKR	K	G	95.00%	5.01	0.46	0	0	1	1	2	2,897.18	720	743	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	9	10	0.06%	4.88%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	4.39	0.381	0	1	2	0	2	2,295.91	725	743	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	9	10	0.06%	4.88%	HSHGPLQADVFVELLSPR	R	R	95.00%	4.11	0.473	0	0	1	0	2	2,082.02	1339	1356	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	9	10	0.06%	4.88%	KRQSPEPSPVTLGR	R	R	95.00%	2.52	0.397	0	1	1	0	2	1,631.83	1411	1424	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	9	10	0.06%	4.88%	LGLHVTPSNVDQVSTPPAAK	K	K	95.00%	3.72	0.446	0	0	1	0	2	2,111.05	1534	1553	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	9	10	0.06%	4.88%	RQSPEPSPVTLGR	K	R	95.00%	2.91	0.374	0	0	1	0	2	1,503.73	1412	1424	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	228,170.70	100.00%	2	2	2	0.01%	2.71%	GPSAGGGPGSGTSPQVEWTAR	R	R	95.00%	4.56	0.0798	0	1	0	0	2	2,035.89	33	53	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	228,170.70	100.00%	2	2	2	0.01%	2.71%	LEEGVASDEEAEEAQPGSGPSPEPEGSPPAF	R	-	95.00%	4.16	0.368	0	0	1	0	2	3,391.41	1964	1996	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	EAQQKVPDEEENEESDNEKETEK	K	S	95.00%	4.03	0.247	0	0	1	0	2	2,814.15	1173	1195	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	95.00%	4.28	0.0122	0	1	0	0	2	2,784.31	1467	1492	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	4.82	0.516	0	2	2	0	2	2,366.08	1320	1340	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	IKNENTEGSPQEDGVELEGLKQR	K	L	95.00%	5.05	0.55	0	0	1	0	2	2,650.24	1320	1342	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	KIKNENTEGSPQEDGVELEGLK	K	Q	95.00%	4.32	0.36	0	0	2	0	2	2,494.17	1319	1340	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	KPSTSDDSDSNFEK	R	I	91.00%	3.69	0	0	1	0	0	2	1,636.64	1548	1561	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	KTQMAEVLPSPR	K	G	95.00%	3.08	0.458	0	1	0	0	2	1,436.70	1285	1296	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	NENTEGSPQEDGVELEGLK	K	Q	95.00%	3.23	0.428	0	1	1	0	2	2,124.90	1322	1340	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	SKGESDDFHMDFDSAVAPR	K	A	95.00%	3	0.323	0	0	1	0	2	2,190.88	1572	1590	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	SVVSDLEADDVK	K	G	95.00%	3.03	0.434	0	3	0	0	2	1,436.56	1455	1466	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	SVVSDLEADDVKGSVPLSSSPPATHFPDETE	K	K	95.00%	4.71	0.308	0	0	3	1	2	4,041.92	1455	1492	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	TQMAEVLPSPR	K	G	95.00%	2.58	0.375	0	2	0	0	2	1,308.60	1286	1296	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	VPDEEENEESDNEK	K	E	95.00%	2.31	0.2	0	1	0	0	2	1,742.63	1178	1191	TRUE	
SNU216LR_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	14	17	26	0.16%	8.30%	VPDEEENEESDNEKETEK	K	S	95.00%	4.44	0.493	0	2	0	0	2	2,229.86	1178	1195	TRUE	
SNU216LR_PC1_02	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.80%	1	2	2	0.01%	1.63%	ASPSPQPSSQPLQIHR	R	Q	95.00%	4.19	0.408	0	1	1	0	2	1,809.86	143	158	TRUE	
SNU216LR_PC1_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	2	3	4	0.02%	2.63%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	5.41	0.521	0	2	1	0	2	2,296.94	948	966	TRUE	
SNU216LR_PC1_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	2	3	4	0.02%	2.63%	NVHSEDFENR	R	I	83.90%	2.02	0.153	0	1	0	0	2	1,326.51	95	104	TRUE	
SNU216LR_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	4	5	5	0.03%	2.82%	HSDNPSEEGEVKDDGLEK	R	S	95.00%	2.34	0.305	0	1	0	0	2	2,144.81	1368	1385	TRUE	
SNU216LR_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	4	5	5	0.03%	2.82%	KKQDSSDEDDDDDEAPK	R	R	95.00%	1.85	0.426	0	1	0	0	2	2,096.72	203	219	TRUE	
SNU216LR_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	4	5	5	0.03%	2.82%	LKEEHGIELSSPR	R	H	95.00%	3.29	0.416	0	1	1	0	2	1,574.76	1355	1367	TRUE	
SNU216LR_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	4	5	5	0.03%	2.82%	QDSSDEDDDDDEAPKR	K	Q	95.00%	2.09	0.488	0	1	0	0	2	1,996.63	205	220	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	ANTSGDFEKDDDAYK	K	T	95.00%	3.21	0.525	0	1	0	0	2	1,755.67	1990	2004	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	AVVSPPKFVFGSESVK	K	S	95.00%	2.51	0.37	0	0	1	0	2	1,757.89	2507	2522	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	DSLITPHVSR	K	S	95.00%	1.99	0.261	0	1	0	0	2	1,204.57	2446	2455	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	KKPEDSPSDDDVLIVYELTPTAEQK	K	A	95.00%	5.89	0.359	0	0	1	0	2	2,897.37	2621	2645	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	KQSLPATSIPTPASFK	R	F	95.00%	3.87	0.409	0	1	1	0	2	1,752.89	1507	1522	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	LNQSGTSVGTDEESDVTQEEER	K	D	95.00%	5.16	0.0797	0	1	1	0	2	2,490.02	2284	2305	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	LTPNAGSDRSFVWHALDYADELPKPEQLAI	K	F	95.00%	3.95	0.396	0	0	0	1	2	3,589.75	1254	1284	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	NADSEIKHSTPSPTR	R	Y	95.00%	2.33	0.325	0	2	0	0	2	1,799.74	770	784	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	NHETDGGSAHGDDDDDDGPHFEPVVPLPDI	K	T	95.00%	4.81	0.572	0	0	1	1	2	3,618.57	1153	1185	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.41	0.363	0	1	1	0	2	2,630.21	2595	2616	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	SALSPSKSPAK	K	L	95.00%	2.47	0.253	0	1	0	0	2	1,152.57	2273	2283	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	5.11	0.461	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216LR_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	18	19	0.12%	8.10%	YIASVQGSTPSPR	R	Q	91.90%	2.38	0.184	0	1	0	0	2	1,522.63	11	23	TRUE	
SNU216LR_PC1_02	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	4	4	5	0.03%	9.30%	HPEPVPEEGSEDELPPQVHKV	R	-	95.00%	3.81	0.241	0	0	1	0	2	2,429.10	819	839	TRUE	
SNU216LR_PC1_02	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	4	4	5	0.03%	9.30%	LEASYSDSPPGEEDLLVHVAEGSK	R	S	95.00%	3.62	0.379	0	0	1	0	2	2,609.17	11	34	TRUE	
SNU216LR_PC1_02	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	4	4	5	0.03%	9.30%	RESDESGESAPDEGGEGAR	R	A	95.00%	4.72	0.596	0	2	0	0	2	2,014.76	733	751	TRUE	
SNU216LR_PC1_02	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	4	4	5	0.03%	9.30%	SFSPLQPGQAPTGR	R	A	95.00%	1.98	0.273	0	1	0	0	2	1,522.71	654	667	TRUE	
SNU216LR_PC1_02	Utrophin	IPI00009329	394,494.50	100.00%	1	1	1	0.01%	0.41%	SSLLPTDYLVEINK	R	I	95.00%	1.91	0.25	0	1	0	0	2	1,671.82	1865	1878	TRUE	
SNU216LR_PC1_02	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	99.80%	2	2	2	0.01%	2.14%	AGSSPAQGAQNEPPR	K	L	95.00%	2.75	0.521	0	1	0	0	2	1,546.66	556	570	TRUE	
SNU216LR_PC1_02	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	99.80%	2	2	2	0.01%	2.14%	GNASPGAATHDSLSDYGPQDSRPTPMR	R	R	95.00%	3.54	0.313	0	0	1	0	2	2,865.23	963	989	TRUE	
SNU216LR_PC1_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	3	3	0.02%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.86	0.307	0	1	1	0	2	1,710.73	237	251	TRUE	
SNU216LR_PC1_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	3	3	0.02%	1.27%	SSDGSLSHEEDLAK	R	V	95.00%	2.82	0.357	0	1	0	0	2	1,554.63	238	251	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase MRCK gamma	IPI00454910	172,520.90	99.30%	2	2	2	0.01%	2.19%	GSGPQRPHSFSEALR	R	R	86.20%	2.38	0.189	0	1	0	0	2	1,705.78	1474	1488	TRUE	
SNU216LR_PC1_02	Serine/threonine-protein kinase MRCK gamma	IPI00454910	172,520.90	99.30%	2	2	2	0.01%	2.19%	RPASMGSEGLGGDADPMKR	R	K	95.00%	4.45	0.437	0	0	1	0	2	2,011.87	1489	1507	TRUE	
SNU216LR_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	6	8	9	0.06%	5.02%	GEEGSDDDETENGPKPK	K	K	95.00%	4.19	0.454	0	2	1	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	6	8	9	0.06%	5.02%	HPKGEEGSDDDETENGPKPK	R	K	95.00%	2.38	0.218	0	0	0	1	2	2,245.93	985	1004	TRUE	
SNU216LR_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	6	8	9	0.06%	5.02%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4	0.463	0	1	1	0	2	2,436.01	935	955	TRUE	
SNU216LR_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	6	8	9	0.06%	5.02%	KGSGSEQEGEDEEGGER	R	K	95.00%	3.5	0.584	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216LR_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	6	8	9	0.06%	5.02%	KGSGSEQEGEDEEGGERK	R	K	95.00%	1.99	0.391	0	1	0	0	2	2,067.75	961	978	TRUE	
SNU216LR_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	6	8	9	0.06%	5.02%	RKGSGSEQEGEDEEGGER	R	K	95.00%	3.32	0.523	0	1	0	0	2	2,095.76	960	977	TRUE	
SNU216LR_PC1_02	Condensin complex subunit 1	IPI00299524	157,173.30	99.80%	1	1	1	0.01%	1.36%	YQPLASTASDNDFVTPEPR	R	R	95.00%	3.85	0.048	0	1	0	0	2	2,187.96	1325	1343	TRUE	
SNU216LR_PC1_02	Isoform 1 of Eukaryotic translation initiation factc	IPI00646377	176,655.90	100.00%	2	2	2	0.01%	2.02%	GGSSKDLLDNQSQEEQRR	R	E	95.00%	4.07	0.428	0	0	1	0	2	2,126.95	1154	1171	TRUE	
SNU216LR_PC1_02	Isoform 1 of Eukaryotic translation initiation factc	IPI00646377	176,655.90	100.00%	2	2	2	0.01%	2.02%	RSPVPAQIAITVPK	R	T	95.00%	3.76	0.504	0	1	0	0	2	1,556.86	494	507	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	5	0.03%	6.47%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.4	0.25	0	0	2	0	2	2,279.98	667	686	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	5	0.03%	6.47%	GLAGPPASPGK	K	A	95.00%	2.27	0.53	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	5	0.03%	6.47%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.97	0.552	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	5	0.03%	6.47%	KLQLERPVSPETQADLQR	R	N	95.00%	3.25	0.377	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216LR_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	5	0.03%	5.22%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.68	0.471	0	1	1	0	2	2,262.99	1355	1377	TRUE	
SNU216LR_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	5	0.03%	5.22%	EASPAPLAQGEPGREDLPTRLPALGEAHVSF	R	A	95.00%	3.68	0.432	0	0	0	1	2	3,956.94	1200	1237	TRUE	
SNU216LR_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	5	0.03%	5.22%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	3.41	0.468	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216LR_PC1_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	KVSPIKINLK	R	N	95.00%	2.47	0.37	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216LR_PC1_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	3.62	0.506	0	1	0	0	2	1,941.82	934	951	TRUE	
SNU216LR_PC1_02	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	5	0.03%	1.72%	AMTMPPVSPVGAEGPVVLR	R	S	95.00%	3.03	0.376	0	1	0	0	2	1,987.97	2352	2370	TRUE	
SNU216LR_PC1_02	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	5	0.03%	1.72%	LEHSSFPEGPGPGSGDEANGPR	R	G	95.00%	5.47	0.494	0	2	2	0	2	2,273.95	2158	2179	TRUE	
SNU216LR_PC1_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	4	8	0.05%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	3.23	0.481	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216LR_PC1_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	4	8	0.05%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	5.38	0.489	0	1	2	4	2	2,333.13	446	466	TRUE	
SNU216LR_PC1_02	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	4	4	0.02%	2.81%	AHTPLNTPDPSTK	R	L	95.00%	2.83	0.205	0	1	0	0	2	1,458.66	1348	1360	TRUE	
SNU216LR_PC1_02	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	4	4	0.02%	2.81%	KSESPFRETEPLVSPHQDK	K	L	95.00%	4.02	0.318	0	0	1	0	2	2,291.07	238	256	TRUE	IPI00442150
SNU216LR_PC1_02	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	4	4	0.02%	2.81%	SESPFRETEPLVSPHQDK	K	L	95.00%	3.15	0.199	0	0	1	0	2	2,162.98	239	256	TRUE	IPI00442150
SNU216LR_PC1_02	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	4	4	0.02%	2.81%	VDSETNIEASKLPTSEPEADAEIEPK	K	E	95.00%	5.6	0.325	0	0	1	0	2	2,879.31	1435	1460	TRUE	
SNU216LR_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	7	8	0.05%	8.44%	ASEAASPLPDSPGDK	K	L	95.00%	3.27	0.339	0	1	0	0	2	1,521.65	1144	1158	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	7	8	0.05%	8.44%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	3.38	0.452	0	2	0	0	2	1,852.82	646	663	TRUE	
SNU216LR_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	7	8	0.05%	8.44%	KKSSSDPGIPGGPQAIPATNSPDHSDHTLSV	R	T	95.00%	6.11	0.408	0	0	0	1	2	4,320.98	359	401	TRUE	
SNU216LR_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	7	8	0.05%	8.44%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	5.19	0.5	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216LR_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	7	8	0.05%	8.44%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.05	0.564	0	1	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ADIDVSGPKVDVDVDPVNIEGPDAK	K	L	95.00%	3.69	0.247	0	0	1	0	2	2,644.24	1750	1774	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	5	0.484	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	AEAPLPSPK	K	L	95.00%	2.21	0.339	1	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	AGLRVSAPEVSVGHK	K	G	95.00%	3.17	0.385	0	0	1	0	2	1,586.81	80	94	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	APDVDVNIAGPDAALKVDVKSPK	K	T	95.00%	7.26	0.518	0	0	1	0	2	2,399.22	2128	2150	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.99	0.431	0	4	3	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	4.62	0.405	0	2	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	95.00%	4.2	0.0076	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	FGFGAKSPK	K	A	95.00%	2.11	0.301	0	1	0	0	2	1,018.48	2051	2059	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	FKAEAPLPSPK	K	L	95.00%	2.34	0.133	1	0	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	FKAEAPLPSPKLEGELQAPDLELSLPAIHVEG	K	A	95.00%	5.98	0.617	0	0	0	1	2	3,945.07	2173	2208	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GGVTGSPEASISGSK	K	G	95.00%	2.86	0.47	1	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.16	0.272	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GHYEVTGSDDETGK	K	L	95.00%	2.64	0.487	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.43	0.507	0	1	3	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	95.00%	4.99	0.114	0	0	1	1	2	2,730.26	2905	2930	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GKGGVTGSPEASISGSK	K	G	95.00%	4	0.134	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	3.04	0.263	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	GPAFNMASPESDFGINLK	K	G	95.00%	2.96	0.448	0	1	1	0	2	1,974.87	2616	2633	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ISAPNVDFNLEGPK	R	V	95.00%	2.82	0.493	0	1	1	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ISIPDVDLDLKGPK	K	V	95.00%	2.84	0.387	0	0	1	0	2	1,589.82	1920	1933	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ISIPDVGLHLK	K	G	91.40%	1.62	0.297	0	1	0	0	2	1,271.68	1204	1214	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	ISMSEVDLNVAAPK	R	V	95.00%	3.29	0.446	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	MPEMSIKPQKISIPDVGLHLK	K	G	95.00%	4.37	0.387	0	0	1	0	2	2,441.27	1194	1214	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	MSLPDVDLDLKGPK	K	M	95.00%	2.08	0.253	0	1	0	0	2	1,607.78	820	833	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	MYFPDVEFDIKSPK	K	F	95.00%	3.61	0.28	0	1	1	0	2	1,795.80	2159	2172	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	SKGHYEVTGSDDETGK	K	L	95.00%	3.16	0.504	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.55	0.0995	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	SNSFSDER	R	E	95.00%	2.44	0.363	0	0	1	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	92.80%	5.31	0.0473	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.48	0.139	0	0	1	0	2	2,194.92	2816	2836	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	VDINTPDVDVHGPDWHLK	K	M	95.00%	5.17	0.416	0	0	1	0	2	2,136.98	1833	1850	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	VEAPSLDVHMDSPDINIEGPDVK	K	I	95.00%	5.89	0.542	0	1	1	0	2	2,557.15	2020	2042	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	VKTPEMIIQKPK	K	I	95.00%	2.53	0.339	0	1	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	35	50	58	0.36%	14.40%	VSVGAPDLSLEAESGSIKLPK	K	M	95.00%	3.49	0.34	0	1	1	0	2	2,177.11	2456	2476	TRUE	
SNU216LR_PC1_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	KTPLALAGSPTPK	K	N	95.00%	2.78	0.36	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216LR_PC1_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	NPEDKSPQLSLSPRPASPK	K	A	95.00%	3.55	0.148	0	0	1	0	2	2,208.01	919	937	TRUE	
SNU216LR_PC1_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	TPLALAGSPTPK	K	N	95.00%	2.53	0.261	0	1	0	0	2	1,232.63	907	918	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.90%	2	2	2	0.01%	1.97%	AGDPGEMPQSPTGLGQPK	R	R	95.00%	2.65	0.343	0	1	0	0	2	1,862.80	1391	1408	TRUE	
SNU216LR_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.90%	2	2	2	0.01%	1.97%	ASPVTSPAAAFPTASPANK	K	D	95.00%	2.76	0.333	0	1	0	0	2	1,864.88	498	516	TRUE	
SNU216LR_PC1_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	AAVVTSPPPTTAPHK	R	E	95.00%	2.56	0.334	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC1_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	SPGSPVGEGTGSPPK	K	W	95.00%	3.21	0.5	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	4	4	0.02%	2.55%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	95.00%	4.81	0.181	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216LR_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	4	4	0.02%	2.55%	VASDTEEADR	K	T	95.00%	2.55	0.513	1	1	0	0	2	1,172.45	654	663	TRUE	
SNU216LR_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	4	4	0.02%	2.55%	VASDTEEADRTSSK	K	K	95.00%	2.34	0.266	0	1	0	0	2	1,575.65	654	667	TRUE	
SNU216LR_PC1_02	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	99.90%	1	1	1	0.01%	1.10%	NFYESDDDQKEK	K	T	95.00%	2.23	0.257	0	1	0	0	2	1,597.61	272	283	TRUE	
SNU216LR_PC1_02	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	DQHLNNSSSSPQR	R	S	95.00%	3.22	0.206	0	1	0	0	2	1,549.64	423	435	TRUE	
SNU216LR_PC1_02	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	ILEDHGSPAGEIDDEDKDKDETETVK	R	Q	95.00%	5.88	0.495	0	0	1	1	2	2,965.28	1724	1749	TRUE	
SNU216LR_PC1_02	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	KDEETEESEYDSEHENSEPVTNIR	R	N	95.00%	4.1	0.15	0	0	1	0	2	2,946.18	527	550	TRUE	
SNU216LR_PC1_02	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	VTNDISPESSPGVGR	R	R	95.00%	3.48	0.441	0	1	0	0	2	1,594.71	60	74	TRUE	
SNU216LR_PC1_02	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	99.80%	1	1	1	0.01%	5.00%	KLDDQSEDEALELEGPLITPGSGSIYSSPGLYS	K	T	95.00%	6.21	0.584	0	0	1	0	2	3,675.72	154	187	TRUE	
SNU216LR_PC1_02	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	5	5	0.03%	1.49%	RDSDGVDGFEAEGK	R	K	95.00%	4.02	0.485	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216LR_PC1_02	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	5	5	0.03%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.83	0.454	0	1	1	0	2	1,689.71	1052	1066	TRUE	
SNU216LR_PC1_02	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	5	5	0.03%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	4.02	0.373	0	1	1	0	2	1,717.72	1051	1065	TRUE	
SNU216LR_PC1_02	Isoform 1 of Filamin-C	IPI00178352,IPI00413958	291,286.30	99.80%	1	1	1	0.01%	0.33%	LGSFGSITR	R	Q	95.00%	1.85	0.251	0	1	0	0	2	1,017.48	2231	2239	TRUE	
SNU216LR_PC1_02	Protein diaphanous homolog 1	IPI00030876	138,984.10	100.00%	1	1	1	0.01%	1.28%	GRSPDELPSAGGDGGK	K	S	95.00%	4.02	0.55	0	1	0	0	2	1,579.68	20	35	TRUE	
SNU216LR_PC1_02	Matrin-3	IPI00017297	94,626.70	100.00%	2	3	4	0.02%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.52	0.398	0	0	1	2	2	2,598.14	186	207	TRUE	
SNU216LR_PC1_02	Matrin-3	IPI00017297	94,626.70	100.00%	2	3	4	0.02%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.64	0.321	0	0	1	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to rho guanine nucleotide exc	IPI00738223	128,198.80	99.80%	1	1	1	0.01%	1.35%	DYSTVSASPTALSTLK	R	Q	95.00%	2.35	0.349	0	1	0	0	2	1,720.80	655	670	TRUE	
SNU216LR_PC1_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.21	0.414	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC1_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.23	0.227	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216LR_PC1_02	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	1	1	1	0.01%	4.31%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	5	0.504	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216LR_PC1_02	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	4	4	0.02%	3.11%	GTLSDSEIETNSATSTIFGK	R	A	94.70%	4	0.0208	0	1	0	0	2	2,137.95	1198	1217	TRUE	
SNU216LR_PC1_02	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	4	4	0.02%	3.11%	KRSPTESVNTPVGK	R	D	95.00%	4.31	0.508	0	1	1	0	2	1,579.78	1037	1050	TRUE	
SNU216LR_PC1_02	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	4	4	0.02%	3.11%	LASDSDAESDSR	R	A	95.00%	2.32	0.329	0	1	0	0	2	1,332.50	816	827	TRUE	
SNU216LR_PC1_02	Calnexin precursor	IPI00020984	67,570.20	99.80%	2	2	2	0.01%	5.24%	AEEDEILNRSPR	K	N	95.00%	2.09	0.25	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC1_02	Calnexin precursor	IPI00020984	67,570.20	99.80%	2	2	2	0.01%	5.24%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.68	0.259	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216LR_PC1_02	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	NRPDSGVEEAWK	R	I	95.00%	3.35	0.456	0	1	0	0	2	1,467.63	883	894	TRUE	
SNU216LR_PC1_02	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	SIVVIHPDTGR	R	E	95.00%	2.7	0.186	0	1	0	0	2	1,273.63	1657	1667	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Nucleolar protein 9	IPI00002902	79,324.90	99.80%	1	1	1	0.01%	3.56%	LAAFADALEFADEEKESPVEFTGHK	R	L	95.00%	3.91	0.348	0	0	1	0	2	2,831.28	471	495	TRUE	
SNU216LR_PC1_02	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	100.00%	2	2	3	0.02%	1.94%	STELVLSPDMPR	R	T	95.00%	2.79	0.412	0	2	0	0	2	1,424.65	237	248	TRUE	
SNU216LR_PC1_02	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	100.00%	2	2	3	0.02%	1.94%	SVEHVSPDTADAESGKEIR	K	E	95.00%	4.26	0.392	0	0	1	0	2	2,106.93	261	279	TRUE	
SNU216LR_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	6	7	7	0.04%	4.34%	EGVQGPLNVSLSEEGK	K	S	95.00%	3.82	0.544	0	1	0	0	2	1,722.79	1177	1192	TRUE	
SNU216LR_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	6	7	7	0.04%	4.34%	GAILSEEELAAMSPTAAAVAK	K	I	95.00%	4.26	0.398	0	1	1	0	2	2,110.01	368	388	TRUE	
SNU216LR_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	6	7	7	0.04%	4.34%	GIASTSDPPTANIKPTPVVSTPSK	R	V	95.00%	2.99	0.196	0	0	1	0	2	2,445.23	1658	1681	TRUE	
SNU216LR_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	6	7	7	0.04%	4.34%	GIASTSDPPTANIKPTPVVSTPSKVTAAAMA	R	S	95.00%	3.62	0.213	0	0	1	0	2	3,455.65	1658	1691	TRUE	
SNU216LR_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	6	7	7	0.04%	4.34%	GNHVIRDEEVSSADISSSSEVISQHLVSYR	R	N	95.00%	7.02	0.0109	0	0	0	1	2	3,380.58	513	542	TRUE	
SNU216LR_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	6	7	7	0.04%	4.34%	KGAILSEEELAAMSPTAAAVAK	R	I	95.00%	3.67	0.355	0	0	1	0	2	2,238.11	367	388	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	4	4	0.02%	4.04%	GSVILDSGHLSTASSSDDLKGEEGSFR	R	G	85.20%	5.36	0.0456	0	0	1	0	2	2,831.27	88	114	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	4	4	0.02%	4.04%	NKLEGDSDVDSELEDRVDGVK	K	S	95.00%	4.82	0.392	0	0	1	0	2	2,399.06	1967	1987	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	4	4	0.02%	4.04%	SLAPDRSDDEHDPLDNTSRPR	K	Y	95.00%	3.88	0.406	0	0	1	0	2	2,473.07	2017	2037	TRUE	
SNU216LR_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	4	4	0.02%	4.04%	YSHSYLSDSDTEAK	R	L	95.00%	3.06	0.375	0	1	0	0	2	1,682.66	2038	2051	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	4	4	0.02%	2.75%	ASPGHSPHYFAASSPTSPNALPPAR	R	K	95.00%	3.61	0.364	0	0	1	0	2	2,597.19	1851	1875	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	4	4	0.02%	2.75%	DLAVPAALTPR	R	A	95.00%	2.89	0.515	0	1	0	0	2	1,203.61	1840	1850	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	4	4	0.02%	2.75%	KASPPSGLWSPAYASH	R	-	95.00%	2.8	0.318	0	1	1	0	2	1,735.78	1876	1891	TRUE	
SNU216LR_PC1_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	99.80%	2	2	2	0.01%	2.15%	NSSNTSVGSPSNTIGR	K	T	91.40%	3.46	0.0323	0	1	0	0	2	1,657.72	1055	1070	TRUE	
SNU216LR_PC1_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	99.80%	2	2	2	0.01%	2.15%	RQSSGSATNVASTPDNR	R	G	95.00%	2.76	0.382	0	1	0	0	2	1,827.80	644	660	TRUE	
SNU216LR_PC1_02	U5 small nuclear ribonucleoprotein 200 kDa helic	IPI00420014	244,513.80	100.00%	1	2	4	0.02%	0.75%	EEASDDDMEGDEAVVR	R	C	95.00%	4.37	0.569	0	3	1	0	2	1,862.66	222	237	TRUE	
SNU216LR_PC1_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	3	3	0.02%	8.78%	AAESETPGKSPEK	K	K	95.00%	2.99	0.442	0	1	0	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC1_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	3	3	0.02%	8.78%	ATNESEDEIPQLVPIGK	K	K	95.00%	2.2	0.353	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC1_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	3	3	0.02%	8.78%	KSPAKSPNPSTPR	K	G	95.00%	2.76	0.403	0	1	0	0	2	1,526.68	391	403	TRUE	
SNU216LR_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.68%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	2.81	0.346	0	1	0	0	2	1,983.92	2451	2470	TRUE	
SNU216LR_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.68%	KSADAGSQKDSDDSAATPQDETVEER	R	G	95.00%	3.51	0.245	0	0	1	0	2	2,817.17	1808	1833	TRUE	
SNU216LR_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.68%	LLVRPTSSETPSAAELVSAIEELVK	R	S	95.00%	4.77	0.004	0	1	1	0	2	2,719.42	1894	1918	TRUE	
SNU216LR_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.68%	SSMEMEGIFNHK	R	D	95.00%	3.41	0.39	0	1	1	0	2	1,489.59	1723	1734	TRUE	
SNU216LR_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	5	5	6	0.04%	7.68%	ALEEGDGSVSGSSPR	R	S	95.00%	3.36	0.405	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216LR_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	5	5	6	0.04%	7.68%	IDENSDKEMEVEESPEK	K	I	95.00%	4.21	0.38	0	2	0	0	2	2,087.84	493	509	TRUE	
SNU216LR_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	5	5	6	0.04%	7.68%	RPILQLSPPGPR	R	G	95.00%	2.15	0.283	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216LR_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	5	5	6	0.04%	7.68%	TGRDTPENGETAIGAENSEK	K	I	95.00%	3.3	0.331	0	1	0	0	2	2,155.91	473	492	TRUE	
SNU216LR_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	5	5	6	0.04%	7.68%	VQTTPKVEEEQDLK	K	F	95.00%	3.44	0.482	0	1	0	0	2	1,723.82	512	525	TRUE	
SNU216LR_PC1_02	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	3	3	3	0.02%	4.68%	IESDTEETQDTSVDHNETGNTGESSVEENEK	K	Q	95.00%	5.27	0.0733	0	0	1	0	2	3,490.38	1198	1228	TRUE	
SNU216LR_PC1_02	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	3	3	3	0.02%	4.68%	KPNIFYSGPASPARPR	R	Y	95.00%	3.57	0.366	0	1	0	0	2	1,837.91	317	332	TRUE	
SNU216LR_PC1_02	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	3	3	3	0.02%	4.68%	QNSTLVGDKRSDPEQNEK	K	L	93.60%	2.75	0.198	0	0	1	0	2	2,124.96	1129	1146	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NSSDQEGNNISSSSGHR	K	V	95.00%	3.5	0.483	0	1	0	0	2	1,855.72	275	291	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NTPVSPGSTFPDVKPDLEDVDGVLFVSFESK	K	E	95.00%	4.61	0.558	0	0	1	0	2	3,402.60	641	671	TRUE	
SNU216LR_PC1_02	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	SILPYPVSPK	K	Q	95.00%	2.17	0.18	0	1	0	0	2	1,180.60	917	926	TRUE	
SNU216LR_PC1_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	1	2	2	0.01%	2.42%	RGSIGENQIKDEK	K	I	95.00%	3.53	0.335	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC1_02	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	2	2	2	0.01%	1.88%	AQENYEGSEEVSPPQTK	R	D	95.00%	3.1	0.318	0	1	0	0	2	1,972.82	2552	2568	TRUE	
SNU216LR_PC1_02	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	2	2	2	0.01%	1.88%	RPYTGNPQYTYNNWSPPVQSNETSNGYFL	R	S	95.00%	5.33	0.106	0	0	1	0	2	3,759.65	2429	2459	TRUE	
SNU216LR_PC1_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.90%	2	2	2	0.01%	3.35%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.79	0.539	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC1_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.90%	2	2	2	0.01%	3.35%	VSAGEPGSHPSPAPR	K	R	95.00%	3.17	0.468	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216LR_PC1_02	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	4	4	5	0.03%	8.94%	ALTQPSPVSTPSSVQFFLQEDDSADR	R	K	83.50%	3.45	0.108	0	0	1	0	2	2,902.31	125	150	TRUE	
SNU216LR_PC1_02	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	4	4	5	0.03%	8.94%	NISAGSLGSLLGHHHGQQAESDPHVTEPLN	R	L	95.00%	3.56	0.33	0	0	0	1	2	3,824.78	427	463	TRUE	
SNU216LR_PC1_02	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	4	4	5	0.03%	8.94%	RRPGASPTGETPTIEEGEEDEDEASEAEGAR	R	A	95.00%	6.73	0.588	0	0	2	0	2	3,352.41	94	124	TRUE	
SNU216LR_PC1_02	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	4	4	5	0.03%	8.94%	TSPSSPAPLPHQEATPR	R	A	95.00%	2.67	0.419	0	1	0	0	2	1,852.86	155	171	TRUE	
SNU216LR_PC1_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	99.80%	2	3	5	0.03%	3.23%	DSSKGEDSAEETEAK	R	P	95.00%	2.39	0.234	0	1	0	0	2	1,662.64	475	489	TRUE	
SNU216LR_PC1_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	99.80%	2	3	5	0.03%	3.23%	RPMEEDGEEKSPSK	K	K	95.00%	4.18	0.442	0	2	2	0	2	1,698.70	372	385	TRUE	
SNU216LR_PC1_02	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.90%	2	2	2	0.01%	1.92%	GGDVSPSPYSSSSWR	R	R	95.00%	2.95	0.316	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216LR_PC1_02	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.90%	2	2	2	0.01%	1.92%	IEHAPSPSSGGTLK	K	N	95.00%	2.74	0.346	0	1	0	0	2	1,460.68	520	533	TRUE	
SNU216LR_PC1_02	Huntingtin	IPI00002335	347,859.30	99.80%	2	3	3	0.02%	0.54%	EKEPGEQASVPLSPK	K	K	95.00%	3.84	0.483	0	1	1	0	2	1,675.79	1189	1203	TRUE	
SNU216LR_PC1_02	Huntingtin	IPI00002335	347,859.30	99.80%	2	3	3	0.02%	0.54%	GKEKEPGEQASVPLSPK	K	K	95.00%	3.81	0.477	0	0	1	0	2	1,860.91	1187	1203	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	2	3	3	0.02%	0.48%	EASENETDMEDPR	K	E	95.00%	2.34	0.327	0	1	0	0	2	1,602.56	6359	6371	TRUE	
SNU216LR_PC1_02	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	2	3	3	0.02%	0.48%	RGSMSYLAAVEEEVEESSVK	R	S	95.00%	6	0.556	0	1	1	0	2	2,280.01	4106	4125	TRUE	
SNU216LR_PC1_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	1	1	0.01%	1.94%	RDYDDMSPR	R	R	95.00%	2.18	0.284	0	1	0	0	2	1,234.46	278	286	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	AAGARPLTSPESLSR	K	D	95.00%	2.75	0.372	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.17	0.244	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.43	0.464	0	2	1	0	2	1,798.73	964	980	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.5	0.453	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216LR_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.37	0.357	0	0	2	0	2	3,020.38	937	963	TRUE	
SNU216LR_PC1_02	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	2.51%	AQLGINEDHSEGDEK	R	S	95.00%	2.98	0.317	0	1	0	0	2	1,721.70	211	225	TRUE	
SNU216LR_PC1_02	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	2.51%	RSSTSSEPTPTVK	R	T	85.60%	2.49	0.154	0	1	0	0	2	1,456.67	830	842	TRUE	
SNU216LR_PC1_02	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	100.00%	4	5	5	0.03%	4.94%	KSDTPQSPSLNSSQPTNSADSK	K	K	95.00%	2.94	0.212	0	0	1	0	2	2,356.03	847	868	TRUE	
SNU216LR_PC1_02	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	100.00%	4	5	5	0.03%	4.94%	NSPAFLSTDLGDEDVGLGPPAPR	R	T	95.00%	3.66	0.481	0	1	1	0	2	2,405.10	503	525	TRUE	
SNU216LR_PC1_02	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	100.00%	4	5	5	0.03%	4.94%	SDTPQSPSLNSSQPTNSADSK	K	K	95.00%	3.59	0.0408	0	1	0	0	2	2,227.94	848	868	TRUE	
SNU216LR_PC1_02	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	100.00%	4	5	5	0.03%	4.94%	TIVAVGSMEEAVILPFR	R	I	95.00%	3.31	0.504	0	1	0	0	2	1,911.97	779	795	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	3	3	4	0.02%	11.90%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	85.50%	4.72	0.0506	0	0	1	0	2	2,877.32	600	626	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	3	3	4	0.02%	11.90%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	4.42	0.508	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	3	3	4	0.02%	11.90%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	7.41	0.492	0	0	2	0	2	3,292.37	627	658	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	9	0.06%	9.42%	DSAAPSPIPGADNLSADPVVSPPTSIPFK	R	S	95.00%	3.65	0.366	0	0	1	0	2	2,927.41	424	452	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	9	0.06%	9.42%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	R	95.00%	4.5	0.324	0	0	1	1	2	3,690.75	1093	1125	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	9	0.06%	9.42%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	K	95.00%	3.28	0.299	0	0	0	1	2	3,846.85	1093	1126	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	9	0.06%	9.42%	LSLTSDPEEGDPLALGPESPGEPQPPQLK	R	K	95.00%	3.33	0.31	0	0	1	0	2	3,078.46	1214	1242	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	9	0.06%	9.42%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.19	0.437	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216LR_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	9	0.06%	9.42%	SSLSGDEEDELFK	R	G	95.00%	2.6	0.287	0	2	0	0	2	1,535.62	1279	1291	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.98	0.285	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	GSPTSAYPER	K	K	95.00%	1.92	0.42	1	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	HGSDPAFAPGPR	R	G	95.00%	2.71	0.483	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	RGSLTLTISGESPK	R	A	95.00%	2.87	0.287	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	RGSPVPPVPER	R	R	95.00%	2.64	0.257	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	RLSLGQGDSTEAATEER	R	G	95.00%	3.78	0.386	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	3.35	0.198	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	RSSPVPPVPERR	R	G	95.00%	2.83	0.17	0	0	1	0	2	1,456.74	923	934	TRUE	
SNU216LR_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	9	10	10	0.06%	12.30%	VPVPGPGSGGNGPER	K	E	90.70%	1.99	0.249	0	1	0	0	2	1,456.66	640	654	TRUE	
SNU216LR_PC1_02	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.80%	2	3	3	0.02%	3.62%	EGVNQPAAVVMEDSSPHEALR	K	C	95.00%	3.1	0.296	0	0	1	0	2	2,316.03	625	645	TRUE	
SNU216LR_PC1_02	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.80%	2	3	3	0.02%	3.62%	EKPDSDDDLDIASLVTAK	R	L	95.00%	4.24	0.581	0	1	1	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC1_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	5	5	0.03%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	93.30%	3.86	0.123	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216LR_PC1_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	5	5	0.03%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	5.11	0.527	0	0	1	1	2	3,209.61	696	726	TRUE	
SNU216LR_PC1_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	5	5	0.03%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	5.51	0.046	0	1	1	0	2	2,981.45	727	754	TRUE	
SNU216LR_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	7	8	10	0.06%	10.00%	HPTGNSITKSPPLMAK	R	R	95.00%	2.73	0.321	0	0	1	0	2	1,758.86	496	511	TRUE	
SNU216LR_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	7	8	10	0.06%	10.00%	HSQPSPEPHSPTEPPAWGSSIVK	K	V	95.00%	4.09	0.298	0	0	3	0	2	2,532.16	728	750	TRUE	
SNU216LR_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	7	8	10	0.06%	10.00%	KSSTGSISNVLFSTQDPVEDAVFGEATNLKK	R	N	84.60%	5.94	0.0051	0	0	1	0	2	3,349.62	762	792	TRUE	
SNU216LR_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	7	8	10	0.06%	10.00%	NLADEIESYMNLKSPLGSK	R	S	95.00%	4.23	0.504	0	1	1	0	2	2,189.02	995	1013	TRUE	
SNU216LR_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	7	8	10	0.06%	10.00%	RSSLPLDHGSPAQENPESEK	R	S	95.00%	4.77	0.323	0	0	1	0	2	2,258.01	1040	1059	TRUE	
SNU216LR_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	7	8	10	0.06%	10.00%	SEHTVFIMPPEPPPDDGKDLSPK	K	Y	95.00%	3.66	0.204	0	0	1	0	2	2,613.19	447	469	TRUE	
SNU216LR_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	7	8	10	0.06%	10.00%	SSPVPEMLEESQELLEPVVDDVPK	R	T	95.00%	3.79	0.573	0	1	0	0	2	2,746.28	889	912	TRUE	
SNU216LR_PC1_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.89	0.433	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	AGMSSNQSISSPVLDAVPR	K	T	95.00%	3.29	0.437	0	3	0	0	2	2,011.92	1394	1412	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	AGMSSNQSISSPVLDAVPRTPSR	K	E	95.00%	3.3	0.188	0	0	1	0	2	2,437.15	1394	1416	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	AGMSSNQSISSPVLDAVPRTPSRER	K	S	89.50%	4.06	0.0888	0	0	1	0	2	2,802.26	1394	1418	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	ARSRTPPSAPSQSR	R	M	84.60%	2.33	0.174	0	0	1	0	2	1,657.72	2405	2418	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	DGLPRTPSR	K	R	95.00%	1.83	0.239	0	1	0	0	2	1,078.50	1429	1437	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	DRSPPKSPEK	R	L	95.00%	2.93	0.311	0	0	2	0	2	1,220.57	402	411	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	EKSATRPSPSPER	K	S	87.10%	1.9	0.206	0	1	0	0	2	1,601.67	344	356	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.39	0.257	0	0	4	0	2	2,259.04	1316	1334	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	ENSFGSPLEFR	R	N	95.00%	2.79	0.407	0	1	0	0	2	1,362.57	1324	1334	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	EQNSALPTSSQDEELMEVVEK	K	S	95.00%	3.95	0.45	0	1	1	0	2	2,443.06	1224	1244	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	EQNSALPTSSQDEELMEVVEKSEEPAGQILS	K	E	95.00%	4.27	0.315	0	0	0	1	2	4,248.97	1224	1261	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	GEFSASPMLK	R	S	95.00%	2	0.363	0	1	0	0	2	1,146.49	1119	1128	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	5.14	0.0319	0	1	0	0	2	2,715.18	304	329	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	GPSPEGSSSTESSPEHPPK	R	S	95.00%	4.12	0.0144	0	1	0	0	2	1,973.81	1646	1664	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	GQSQTSPDHR	K	S	95.00%	1.86	0.259	0	1	0	0	2	1,192.47	1059	1068	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	GRSPSPKPR	R	G	92.70%	1.66	0.289	0	1	0	0	2	1,141.49	1760	1768	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.48	0.444	0	2	3	0	2	2,136.83	433	451	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.91	0.524	0	1	1	0	2	2,932.38	374	401	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	HSLSGSSPGMK	R	D	95.00%	2.12	0.338	0	1	0	0	2	1,167.49	1457	1467	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	HSLSGSSPGMKDIPR	R	T	95.00%	2.44	0.21	0	1	0	0	2	1,728.72	1457	1471	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	MALPPQEDATASPPR	K	Q	95.00%	3.62	0.335	0	4	3	0	2	1,660.74	1168	1182	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	MALPPQEDATASPPRQK	K	D	95.00%	2.48	0.209	0	0	1	0	2	1,916.89	1168	1184	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	PASPKKPPPGER	K	R	95.00%	2.6	0.299	0	0	1	0	2	1,340.67	2662	2673	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	QGSITSPQANEQSVTPQR	R	R	95.00%	3.37	0.488	0	2	0	0	2	2,007.91	852	869	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	QGSITSPQANEQSVTPQRR	R	S	95.00%	3.3	0.402	0	1	0	0	2	2,164.01	852	870	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	QPSSPYEDKDKDK	K	K	95.00%	3.26	0.322	0	1	1	0	2	1,616.68	330	342	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	QSHSESPSLQSK	R	S	95.00%	2.68	0.358	0	1	1	0	2	1,394.59	1078	1089	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	RGEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	4.4	0.005	0	1	1	0	2	2,871.28	303	329	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	RRPSPQPSPR	R	D	94.80%	2.27	0.233	0	1	0	0	2	1,257.62	2699	2708	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	RSPSVSSPEPAEK	R	S	95.00%	2.42	0.233	0	2	0	0	2	1,530.62	1726	1738	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	RVPSPTPAPK	K	E	80.30%	2.37	0.142	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SAHATAPVNIAGSR	R	T	95.00%	2.52	0.312	0	1	0	0	2	1,431.67	2343	2356	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SATRPSPSPER	K	S	95.00%	2.45	0.224	0	0	1	0	2	1,264.57	346	356	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SGAGSSPETKEQNSALPTSSQDEELMEVVEI	R	S	93.40%	5.74	0.0342	0	0	1	0	2	3,344.47	1214	1244	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SGSSQELDVKPSASPQER	R	S	95.00%	4.58	0.42	0	4	1	0	2	1,981.89	1539	1556	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SLSYSPVER	R	R	94.70%	1.82	0.229	0	2	0	0	2	1,117.49	2690	2698	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SRSPSSPELNNK	R	C	95.00%	2.96	0.34	0	1	0	0	2	1,395.63	1497	1508	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SSGHSSSELSPDAVEK	R	A	95.00%	4	0.0617	0	3	0	0	2	1,776.67	1378	1393	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SSSPVTELASR	R	S	95.00%	1.82	0.319	0	1	0	0	2	1,293.51	1101	1111	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SSTGPEPPAPTPLLAER	R	H	94.90%	2.24	0.255	0	1	0	0	2	1,799.86	357	373	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	SSTPPGESYFGVSSLQLK	K	G	95.00%	2.65	0.324	0	1	0	0	2	1,963.91	1041	1058	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	THTTALAGRSPSPASGR	K	R	95.00%	2.74	0.414	0	2	0	0	2	1,746.83	286	302	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	TPAAAAAMNLASPR	R	T	95.00%	3.61	0.482	0	1	0	0	2	1,421.66	2261	2274	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	TPPVALNSSR	R	M	95.00%	1.94	0.233	0	1	0	0	2	1,121.54	2104	2113	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	TPQAPASANLVGPR	R	S	91.60%	2.33	0.159	0	1	0	0	2	1,458.71	2329	2342	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	TSPAPWK	R	R	95.00%	1.54	0.324	0	1	0	0	2	866.3809	1856	1862	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	TSPPLLDR	R	A	95.00%	1.46	0.361	0	1	0	0	2	978.4658	2397	2404	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	VKAQTPPGPSLSGSK	K	S	95.00%	3.27	0.37	0	1	1	0	2	1,533.77	999	1013	TRUE	
SNU216LR_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	49	58	81	0.50%	21.10%	VPSPTPAPK	R	E	80.20%	1.63	0.247	0	1	0	0	2	973.4756	2579	2587	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.28%	HLQQGSESPMMIGELR	R	S	95.00%	3.62	0.447	0	1	1	0	2	1,892.84	2597	2612	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.28%	IILNSHSPAGSAAISQQDFHPK	R	C	95.00%	4.51	0.275	0	0	1	0	2	2,398.16	1606	1627	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.28%	TISAQDTLAYATALLNEK	R	E	95.00%	4.29	0.464	0	1	1	0	2	2,002.97	2559	2576	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.28%	TLLSESSSQSSKSPSLSSK	K	Q	95.00%	4.4	0	0	1	0	0	2	2,019.95	1129	1147	TRUE	
SNU216LR_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.28%	VSDQNSPVLPK	R	K	95.00%	2.76	0.334	0	1	0	0	2	1,263.60	2042	2052	TRUE	
SNU216LR_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	4	4	0.02%	2.47%	NIPSPGQLDPDTR	R	I	95.00%	2.46	0.36	0	1	0	0	2	1,489.67	2556	2568	TRUE	
SNU216LR_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	4	4	0.02%	2.47%	TPFKDEIDEFANSPSEDKEESMEIHATGK	R	H	95.00%	4.46	0.425	0	0	1	1	2	3,361.45	1862	1890	TRUE	
SNU216LR_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	4	4	0.02%	2.47%	VPVHQHSPSEPFLEKPVPDMTQVSGPNAQ	K	S	95.00%	5	0.417	0	0	0	1	2	3,572.76	551	582	TRUE	
SNU216LR_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	GDSLKEPTSIAESSR	R	H	95.00%	2.95	0.385	0	1	1	0	2	1,656.75	325	339	TRUE	
SNU216LR_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	GVGSPEPGPTAPYLGR	R	S	95.00%	3.01	0.251	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216LR_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.07	0.196	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216LR_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.71	0.497	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	APEGDDFLSLHAESDGEGALQVDLGEPAPA	R	W	95.00%	4.57	0.521	0	0	1	0	2	3,781.69	440	476	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	EVLYDSEGLSGEER	R	G	90.80%	2	0.226	0	0	1	0	2	1,742.66	729	742	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	4.75	0.359	0	1	1	0	2	2,741.18	225	247	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	GAEETSWSGEER	K	A	95.00%	2.6	0.355	0	1	0	0	2	1,417.53	958	969	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	GPSPAPASSPK	R	R	95.00%	2.3	0.297	0	1	0	0	2	1,075.48	717	727	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	GPSPAPASSPKR	R	E	95.00%	2.63	0.313	0	2	0	0	2	1,311.55	717	728	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.41	0.412	0	1	2	0	2	2,127.97	496	516	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	QRSPSPAPAPAPAAAAGPPTRK	R	K	95.00%	4.41	0.353	0	0	1	0	2	2,256.07	496	517	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	RRSASPPPATSSSSSSR	R	R	95.00%	3.62	0.389	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	SPFLKPDER	R	A	95.00%	2.11	0.214	0	1	0	0	2	1,168.54	874	882	TRUE	
SNU216LR_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	11	13	15	0.09%	11.10%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.05	0.293	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	3	3	3	0.02%	2.56%	EYDSGDTDEIIAMKK	R	N	95.00%	2.66	0.371	0	1	0	0	2	1,874.72	249	263	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	3	3	3	0.02%	2.56%	NDREYDSGDTDEIIAMKK	R	N	95.00%	2.9	0.223	0	0	1	0	2	2,179.92	246	263	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	3	3	3	0.02%	2.56%	NSSPGEASLLEK	R	E	95.00%	2.44	0.44	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216LR_PC1_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	1	1	1	0.01%	2.95%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.04	0.461	0	0	1	0	2	2,204.91	309	328	TRUE	
SNU216LR_PC1_02	Phosphatidate cytidylyltransferase 1	IPI00024234	53,306.50	99.30%	1	1	1	0.01%	5.21%	EGEAAGGDHETESTSDKETDIDDR	R	Y	95.00%	5.48	0.0719	0	1	0	0	2	2,644.02	23	46	TRUE	
SNU216LR_PC1_02	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	HRSLTAHSLLPLAEK	R	Q	95.00%	3.95	0.417	0	0	1	1	2	1,752.92	1379	1393	TRUE	
SNU216LR_PC1_02	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	SLTAHSLLPLAEK	R	Q	95.00%	2.84	0.437	0	1	0	0	2	1,459.76	1381	1393	TRUE	
SNU216LR_PC1_02	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	VLAVSLINEALDKGSPEK	R	T	95.00%	4.22	0.36	0	1	1	0	2	1,963.02	482	499	TRUE	
SNU216LR_PC1_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	4.17%	GADNDGSGSESGYTTPK	K	K	95.00%	2.75	0.319	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC1_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	4.17%	RTSPQVLGSILK	K	S	95.00%	2.39	0.279	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	2	3	4	0.02%	2.89%	KHSDNEAESIADALSSTSNILASEFFEEEKQE	R	S	95.00%	6.87	0.437	0	0	1	2	2	3,947.77	1146	1180	TRUE	
SNU216LR_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	2	3	4	0.02%	2.89%	STFSPAPRPEMPGTVEVESTFLAR	K	L	95.00%	3.47	0.334	0	0	1	0	2	2,686.26	1181	1204	TRUE	
SNU216LR_PC1_02	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	3	3	0.02%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.91	0.497	0	1	1	0	2	2,816.14	239	264	TRUE	
SNU216LR_PC1_02	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	3	3	0.02%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.76	0.425	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.17	0.303	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.95	0.417	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216LR_PC1_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	2.96	0.598	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC1_02	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	2	2	2	0.01%	1.50%	ILIPSDIESSK	R	S	95.00%	1.99	0.281	0	1	0	0	2	1,281.63	459	469	TRUE	
SNU216LR_PC1_02	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	2	2	2	0.01%	1.50%	VEETSPLGNAR	K	L	95.00%	2.12	0.302	0	1	0	0	2	1,252.56	1142	1152	TRUE	
SNU216LR_PC1_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	5	5	0.03%	4.21%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.62	0.437	0	1	1	0	2	2,114.05	687	705	TRUE	
SNU216LR_PC1_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	5	5	0.03%	4.21%	GSHQISLDNPDYQQDFFPK	K	E	95.00%	3.83	0.426	0	1	1	0	2	2,316.00	1161	1179	TRUE	
SNU216LR_PC1_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	5	5	0.03%	4.21%	MHLPSPTDSNFYR	R	A	95.00%	2.57	0.385	0	1	0	0	2	1,644.69	987	999	TRUE	
SNU216LR_PC1_02	Isoform 1 of FERM domain-containing protein 6	IPI00043622,IPI00184707,IP	72,046.10	100.00%	2	2	2	0.01%	2.25%	HSLSLDDIR	R	L	95.00%	2.34	0.316	0	1	0	0	2	1,135.51	541	549	TRUE	
SNU216LR_PC1_02	Isoform 1 of FERM domain-containing protein 6	IPI00043622,IPI00184707,IP	72,046.10	100.00%	2	2	2	0.01%	2.25%	TSTDRHSLSLDDIR	K	L	95.00%	2.8	0.162	0	0	1	0	2	1,695.77	536	549	TRUE	
SNU216LR_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	5.54%	EIQNGNLHESDSESVPR	K	D	95.00%	2.93	0.404	0	2	0	0	2	1,990.85	66	82	TRUE	
SNU216LR_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	5.54%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.66	0.348	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216LR_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	5.54%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.15	0.328	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216LR_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	5.54%	QPTPPSEAAASK	K	K	95.00%	2.31	0.341	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216LR_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	5.54%	TENVFVDEPLIHATTYIPLMDNADSSPVVDK	K	E	95.00%	5.83	0.482	0	0	1	0	2	3,666.74	218	249	TRUE	
SNU216LR_PC1_02	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	4	5	5	0.03%	3.59%	DSPSAGGPVGQLEPIPIPAPASPGTRPTLK	R	D	88.80%	6.38	0	0	0	1	0	2	2,987.52	506	535	TRUE	
SNU216LR_PC1_02	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	4	5	5	0.03%	3.59%	KSLSNPDIASETLTLLSFLR	R	S	95.00%	4.23	0.532	0	0	1	0	2	2,285.18	460	479	TRUE	
SNU216LR_PC1_02	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	4	5	5	0.03%	3.59%	MGAQQDDGSDAPPGSPDWAGDVTR	R	G	95.00%	4.74	0.571	0	1	0	0	2	2,509.99	605	628	TRUE	
SNU216LR_PC1_02	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	4	5	5	0.03%	3.59%	SLSNPDIASETLTLLSFLR	K	S	95.00%	4.85	0.562	0	1	1	0	2	2,157.08	461	479	TRUE	
SNU216LR_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	7	0.04%	9.12%	ATLSSTSGLDLMSESGEGEISPQR	K	E	95.00%	4.45	0.228	0	1	0	0	2	2,532.12	672	695	TRUE	
SNU216LR_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	7	0.04%	9.12%	EVAATEEDVTRLPSPTSPFSSLSQDQAATSK	K	A	95.00%	6.64	0.0651	0	0	1	0	2	3,329.54	641	671	TRUE	
SNU216LR_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	7	0.04%	9.12%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	3.83	0.126	0	1	0	0	2	2,128.98	652	671	TRUE	
SNU216LR_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	7	0.04%	9.12%	RGESLDNLDSPR	R	S	95.00%	2.85	0.365	0	1	0	0	2	1,438.63	1173	1184	TRUE	
SNU216LR_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	7	0.04%	9.12%	SASVNKEPVSLPGIMR	R	R	95.00%	3.12	0.426	0	0	1	0	2	1,764.87	1157	1172	TRUE	
SNU216LR_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	7	0.04%	9.12%	SHSPSASQSGSQLR	R	N	95.00%	3.04	0.358	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	7	7	7	0.04%	9.12%	TPNNVVSTPAPSPDASQLASSLSSQK	R	E	95.00%	4.85	0.181	0	0	1	0	2	2,663.26	615	640	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	3	3	3	0.02%	6.60%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.02	0.474	0	0	1	0	2	3,586.35	475	504	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	3	3	3	0.02%	6.60%	LVPSQEETK	K	L	95.00%	1.8	0.364	0	1	0	0	2	1,110.51	420	428	TRUE	
SNU216LR_PC1_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	3	3	3	0.02%	6.60%	VAQGATEKSPEDK	K	V	95.00%	2.64	0.297	0	1	0	0	2	1,439.64	445	457	TRUE	
SNU216LR_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	8.81%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	2.92	0.288	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216LR_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	8.81%	EKEEPPSPIEATPPQSLLEK	R	V	95.00%	3.67	0.385	0	0	1	0	2	2,299.11	468	487	TRUE	
SNU216LR_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	8.81%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.8	0.378	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216LR_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	8.81%	GSDDAPYSPTAR	K	V	95.00%	2.64	0.211	0	1	0	0	2	1,316.52	898	909	TRUE	
SNU216LR_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	8.81%	KGSDDAPYSPTAR	K	V	95.00%	2.84	0.183	0	2	0	0	2	1,444.61	897	909	TRUE	
SNU216LR_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	8.81%	LEKSPLAGNKDNK	K	F	95.00%	2.37	0.353	0	1	0	0	2	1,493.74	622	634	TRUE	
SNU216LR_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	8.81%	RPSASSPNNNTAAK	R	G	95.00%	3.63	0.409	0	1	0	0	2	1,494.67	1059	1072	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	DPGLEPGPDSPGGSSPPR	K	R	95.00%	3.42	0.505	0	1	0	0	2	1,798.76	963	980	TRUE	
SNU216LR_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	DPGLEPGPDSPGGSSPPRR	K	Q	95.00%	2.45	0.234	0	1	0	0	2	1,954.87	963	981	TRUE	
SNU216LR_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	SGSEEAVTDPGER	R	E	95.00%	2.58	0.468	0	1	0	0	2	1,413.55	1200	1212	TRUE	
SNU216LR_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	TASELLLDR	R	R	94.10%	1.65	0.263	0	1	0	0	2	1,097.52	1225	1233	TRUE	
SNU216LR_PC1_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	4	4	0.02%	10.10%	RPHTPTPGIYMGR	K	P	95.00%	2.5	0.289	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC1_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	4	4	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.81	0.203	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC1_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	4	4	0.02%	10.10%	RSPSPYYSR	R	D	95.00%	2	0.235	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC1_02	Isoform 1 of Telomerase-binding protein EST1A	IPI00015793	160,466.50	99.80%	2	2	2	0.01%	2.68%	KQHEEFDLSPDQWR	K	K	95.00%	3.4	0.194	0	0	1	0	2	1,894.81	823	836	TRUE	
SNU216LR_PC1_02	Isoform 1 of Telomerase-binding protein EST1A	IPI00015793	160,466.50	99.80%	2	2	2	0.01%	2.68%	TQTPQLHFLDTDDEVSPTSWGDSR	K	Q	95.00%	4.76	0.109	0	0	1	0	2	2,812.21	469	492	TRUE	
SNU216LR_PC1_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	3	3	0.02%	16.10%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	95.00%	4.7	0.403	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC1_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	3	3	0.02%	16.10%	GDSETDLEALFNAVMNPK	R	T	95.00%	3.96	0.492	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC1_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	3	3	0.02%	16.10%	QASTDAGTAGALTPQHVR	R	A	95.00%	4.25	0.51	0	1	0	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	ASAVSELSPR	R	E	95.00%	2.14	0.356	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	ERSPALKSPLQSVVVR	R	R	95.00%	3.24	0.44	0	1	2	0	2	1,925.96	246	261	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	FSGEEGEIEDDESGTENR	K	E	95.00%	3.12	0.463	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	GSFSDTGLGDGK	K	M	95.00%	1.71	0.284	0	1	0	0	2	1,220.48	376	387	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	HGLAHDEMKSPR	K	E	95.00%	2.83	0.426	0	1	1	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	IDISPSTFR	R	K	95.00%	2.16	0.278	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	KHGLAHDEMKSPR	R	E	95.00%	2.49	0.4	0	1	0	0	2	1,585.73	688	700	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	KSPVGKSPPSTGSTYGSSQK	K	E	95.00%	4.57	0.205	0	0	1	0	2	2,059.97	314	333	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	NREEEWDPEYTPK	R	S	95.00%	2.82	0.246	0	1	0	0	2	1,772.72	864	876	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	RIDISPSTFR	R	K	95.00%	1.81	0.247	0	0	1	0	2	1,271.61	678	687	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	SPALKSPLQSVVVR	R	R	95.00%	2.37	0.43	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	SPSELFAQHIVTIVHHVK	R	E	95.00%	2.95	0.428	0	0	1	0	2	2,122.08	622	639	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.2	0.166	0	1	0	0	2	1,931.87	315	333	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	TDSEKPFRGSQSPK	K	R	95.00%	2.14	0.279	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	2.96	0.29	0	0	1	0	2	2,797.03	922	944	TRUE	
SNU216LR_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	16	18	19	0.12%	15.90%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	3.98	0.209	0	0	0	1	2	3,103.24	922	947	TRUE	
SNU216LR_PC1_02	Rac GTPase activating protein	IPI00334294	190,968.80	99.80%	2	2	2	0.01%	2.07%	NSMPTVSFLDQDQSPPR	K	F	95.00%	3.16	0.419	0	1	0	0	2	1,998.86	841	857	TRUE	
SNU216LR_PC1_02	Rac GTPase activating protein	IPI00334294	190,968.80	99.80%	2	2	2	0.01%	2.07%	SAKSEESLTSLHAVDGDSK	R	L	95.00%	3.76	0.345	0	0	1	0	2	2,040.91	354	372	TRUE	
SNU216LR_PC1_02	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	4	4	5	0.03%	6.50%	LKGNKHDDGTQSDSENAGAHR	R	R	95.00%	2.33	0.32	0	0	1	0	2	2,317.00	369	389	TRUE	
SNU216LR_PC1_02	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	4	4	5	0.03%	6.50%	NQATSATSEKDNDDDQSDKGTYTIELENPN	K	K	85.00%	5.3	0.0278	0	0	1	0	2	4,180.76	482	518	TRUE	
SNU216LR_PC1_02	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	4	4	5	0.03%	6.50%	QGSFTIEKPSPNIPIELIPHINK	R	Q	95.00%	3.17	0.308	0	0	0	1	2	2,652.38	837	859	TRUE	
SNU216LR_PC1_02	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	4	4	5	0.03%	6.50%	SSPVNNHHSPGQTPTLGQPEAR	K	A	95.00%	3.28	0.314	0	0	2	0	2	2,471.05	1522	1543	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	AAESLTAIPEPASPQLLETPIHASQIQK	R	V	95.00%	5.47	0.294	0	0	1	0	2	3,020.53	1763	1790	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	AHSEKDQPPFGDSDDSVEADK	R	S	95.00%	4.47	0.419	0	0	1	0	2	2,353.95	483	503	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	3.97	0.363	0	0	2	0	2	2,433.10	784	805	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	AQPFGFIDSDTDAEEERIPATPVVIPMK	R	K	95.00%	2.83	0.243	0	0	1	0	2	3,153.49	321	348	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	AQPFGFIDSDTDAEEERIPATPVVIPMKK	R	R	95.00%	3.53	0.277	0	0	0	1	2	3,281.58	321	349	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	DSDTDVEEEELPVENR	R	E	95.00%	3.64	0.554	0	1	0	0	2	1,955.78	452	467	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	GPGAPGLAHLQESQAGSDTDVEEGK	R	A	86.10%	3.35	0.118	0	0	1	0	2	2,530.11	360	384	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	GPGAPGLAHLQESQAGSDTDVEEGKAPQA	R	S	95.00%	5.51	0.462	0	0	1	1	2	3,463.64	360	393	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	SQPPGEDSDTDVDDDSRPPGRPAEVHLER	R	A	92.60%	3.31	0.17	0	0	0	1	2	3,253.40	292	320	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	SQTTTERDSDTDVEEEELPVENR	R	E	82.30%	5.16	0.0218	0	0	1	0	2	2,759.15	445	467	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTS	R	G	94.50%	6.12	0.0263	0	0	1	0	2	3,857.87	1153	1188	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTV	R	G	94.40%	6.16	0.0372	0	0	1	0	2	3,905.87	1235	1270	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	SSVKTPEPVVPTAPEPHPTTSTDQPVTPK	R	L	95.00%	4.33	0.316	0	0	0	1	2	3,104.52	1604	1632	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	SSVKTPESIVPIAPELQPSTSR	R	N	95.00%	4.56	0.359	0	0	1	0	2	2,403.22	1563	1584	TRUE	
SNU216LR_PC1_02	Isoform 1 of Mediator of DNA damage checkpoin	IPI00552897,IPI00641106	226,660.80	100.00%	15	16	17	0.10%	16.50%	SSVKTPEVVPTALELQPSTSTDRPVTSEPTS	R	G	95.00%	3.55	0.234	0	0	0	1	2	3,877.91	1194	1229	TRUE	
SNU216LR_PC1_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	2	2	2	0.01%	4.04%	GWLRDPSASPGDAGEQAIR	K	Q	95.00%	4.02	0.353	0	0	1	0	2	2,062.93	282	300	TRUE	
SNU216LR_PC1_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	2	2	2	0.01%	4.04%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	4.02	0.348	0	0	1	0	2	2,657.30	709	732	TRUE	
SNU216LR_PC1_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.82	0.335	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC1_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.61	0.234	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216LR_PC1_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.44%	EAALPPVSPLK	R	A	95.00%	2.42	0.271	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216LR_PC1_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.44%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	R	P	95.00%	4.16	0.422	0	0	1	0	2	3,174.59	306	333	TRUE	
SNU216LR_PC1_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RDSLTGSSDLYK	R	R	95.00%	3.03	0.258	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216LR_PC1_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RDSLTGSSDLYKR	R	T	95.00%	3.79	0.35	0	1	1	0	2	1,577.73	708	720	TRUE	
SNU216LR_PC1_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.62	0.336	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216LR_PC2_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	6	7	0.04%	8.78%	AAESETPGKSPEK	K	K	95.00%	3.02	0.435	0	1	1	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC2_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	6	7	0.04%	8.78%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.2	0.449	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC2_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	6	7	0.04%	8.78%	KSPAKSPNPSTPR	K	G	95.00%	3.07	0.367	0	2	1	0	2	1,446.71	391	403	TRUE	
SNU216LR_PC2_02	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	4	4	5	0.03%	7.86%	EMDESLANLSEDEVYSEEER	R	N	95.00%	4.58	0.0638	0	1	0	0	2	2,517.95	122	141	TRUE	
SNU216LR_PC2_02	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	4	4	5	0.03%	7.86%	KLPPPPPQAPPEEENESEPEEPSGVEGAAFQ	K	L	95.00%	5.64	0.517	0	0	2	0	2	3,606.63	150	182	TRUE	
SNU216LR_PC2_02	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	4	4	5	0.03%	7.86%	LPPPPPQAPPEEENESEPEEPSGVEGAAFQS	K	L	95.00%	3.82	0.318	0	0	1	0	2	3,478.53	151	182	TRUE	
SNU216LR_PC2_02	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	4	4	5	0.03%	7.86%	QATPGVPAQQSPSM	R	-	87.40%	2.03	0.265	0	1	0	0	2	1,478.63	839	852	TRUE	
SNU216LR_PC2_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.80%	2	2	2	0.01%	3.05%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	4.13	0.205	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216LR_PC2_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.80%	2	2	2	0.01%	3.05%	GTNVMVTHYFLPPDDAVPSDDDLGTVPDY	K	K	95.00%	5.53	0.465	0	0	1	0	2	3,713.67	1751	1783	TRUE	
SNU216LR_PC2_02	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.80%	2	3	3	0.02%	6.73%	TDGSISGDRQPVTVADYISR	R	A	95.00%	3.28	0.261	0	1	1	0	2	2,217.02	598	617	TRUE	
SNU216LR_PC2_02	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.80%	2	3	3	0.02%	6.73%	TVMDGGLESDGPNMTENGLEDESRPQR	R	R	95.00%	4.1	0.344	0	0	1	0	2	3,014.25	558	584	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	ASVLDTSMASGSGSPSK	R	T	95.00%	3.43	0.196	0	1	0	0	2	1,661.71	498	514	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	SPEPEATLTFPFLDK	K	M	95.00%	3.76	0.424	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	4.1	0.434	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216LR_PC2_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	4	0.03%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	3.46	0.411	0	2	1	0	2	1,811.70	491	505	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	4	0.03%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.61	0.282	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216LR_PC2_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	1	1	1	0.01%	2.62%	NKSNEDQSMGNWQIK	R	R	95.00%	3.83	0.403	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216LR_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	10	0.06%	3.15%	DGQDAIAQSPEK	K	E	95.00%	2.79	0.407	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216LR_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	10	0.06%	3.15%	DGQDAIAQSPEKESK	K	D	95.00%	3.46	0.363	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	10	0.06%	3.15%	ISSKSPGHMVILDQTK	K	G	95.00%	3.69	0.481	0	2	2	0	2	1,820.90	549	564	TRUE	
SNU216LR_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	10	0.06%	3.15%	RISSKSPGHMVILDQTK	K	G	95.00%	3.29	0.262	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216LR_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	10	0.06%	3.15%	SPGHMVILDQTK	K	G	95.00%	2.61	0.317	0	1	0	0	2	1,405.65	553	564	TRUE	
SNU216LR_PC2_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	12	0.08%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.84	0.36	0	2	5	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC2_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	12	0.08%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.88	0.391	0	0	4	1	2	3,082.36	191	217	TRUE	
SNU216LR_PC2_02	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTK	K	R	95.00%	3.64	0.222	0	0	1	0	2	2,971.13	299	323	TRUE	
SNU216LR_PC2_02	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTKR	K	R	95.00%	3.94	0.326	0	0	1	0	2	3,127.23	299	324	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	7	0.04%	6.97%	DLPPFEDESEGLLGTEGPLEEEEDGEELIGDG	R	D	95.00%	3.9	0.293	0	0	1	0	2	3,912.64	45	79	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	7	0.04%	6.97%	GLLYDSDEEDEERPAR	R	K	95.00%	3.27	0.403	0	1	2	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	7	0.04%	6.97%	RGLLYDSDEEDEERPAR	R	K	95.00%	3.52	0.211	0	1	0	0	2	2,129.91	133	149	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	7	0.04%	6.97%	RTDALTSSPGR	R	D	95.00%	2.64	0.296	0	0	1	0	2	1,240.57	34	44	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	7	0.04%	6.97%	TDALTSSPGR	R	D	91.80%	2.25	0.156	0	1	0	0	2	1,084.47	35	44	TRUE	
SNU216LR_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	9	0.06%	14.70%	AGSSAAGASGWTSAGSLNSVPTNSAQQGI	K	G	95.00%	6.6	0.0146	0	0	2	0	2	3,892.74	721	761	TRUE	
SNU216LR_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	9	0.06%	14.70%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	5.52	0.521	0	0	1	1	2	3,457.45	100	129	TRUE	
SNU216LR_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	9	0.06%	14.70%	RANFDEENAYFEDEEEDSSNVDLPYIPAENS	K	Q	95.00%	7.7	0.531	0	0	1	0	2	4,042.68	66	99	TRUE	
SNU216LR_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	9	0.06%	14.70%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	K	95.00%	3.54	0.34	0	0	1	0	2	3,605.52	163	194	TRUE	
SNU216LR_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	9	0.06%	14.70%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	5.48	0.452	0	0	2	1	2	3,749.61	163	195	TRUE	
SNU216LR_PC2_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.20%	KSPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	4.03	0.531	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC2_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.20%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	4.04	0.453	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC2_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.20%	SPVSTRPLPSASQK	R	A	83.70%	2.6	0.154	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216LR_PC2_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.20%	SSPQLDPLR	R	K	95.00%	2.02	0.294	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	3	3	3	0.02%	4.66%	AASPPASASDLIEQQQK	R	R	95.00%	3.47	0.52	0	1	0	0	2	1,820.84	333	349	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	3	3	3	0.02%	4.66%	AASPPASASDLIEQQQKR	R	G	95.00%	3.41	0.319	0	0	1	0	2	1,976.94	333	350	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	3	3	3	0.02%	4.66%	KDSEGYSESPDLEFEYADTDK	R	W	95.00%	4.09	0.383	0	0	1	0	2	2,504.99	57	77	TRUE	
SNU216LR_PC2_02	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.60%	2	2	2	0.01%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.83	0.238	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC2_02	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.60%	2	2	2	0.01%	10.10%	RSPSPYYSR	R	D	92.50%	1.95	0.206	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC2_02	Absent in melanoma 1 protein	IPI00294840	188,677.20	99.00%	2	2	2	0.01%	2.26%	AALDGGVASAASPESKPSPGTK	R	G	80.00%	2.68	0.147	0	0	1	0	2	2,077.98	64	85	TRUE	
SNU216LR_PC2_02	Absent in melanoma 1 protein	IPI00294840	188,677.20	99.00%	2	2	2	0.01%	2.26%	STDSPGADAELPESAAR	K	D	95.00%	2.95	0.454	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216LR_PC2_02	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	DGLLSPGAWNGEPSGEGSR	K	S	95.00%	3.57	0.358	0	1	0	0	2	1,965.83	504	522	TRUE	
SNU216LR_PC2_02	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	ETPRPEGGSPSPAGTPPQPK	R	R	95.00%	3.14	0.23	0	2	1	0	2	2,066.95	476	495	TRUE	
SNU216LR_PC2_02	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	GAGAAGLPQPPRESPQLHER	R	E	95.00%	3.76	0.44	0	1	1	1	2	2,148.03	456	475	TRUE	
SNU216LR_PC2_02	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	4	7	8	0.05%	10.80%	QSVPYGMAVVVRSPLR	R	T	93.20%	2.3	0.207	0	0	1	0	2	1,838.93	145	160	TRUE	
SNU216LR_PC2_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	2	2	2	0.01%	4.36%	GFEEEHKDSDDDSSDDEQEK	R	K	95.00%	3.71	0.638	0	1	0	0	2	2,580.79	423	442	TRUE	
SNU216LR_PC2_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	2	2	2	0.01%	4.36%	SSLGQSASETEEDTVSVSK	R	K	80.80%	3.58	0	0	1	0	0	2	2,020.86	302	320	TRUE	
SNU216LR_PC2_02	AXL receptor tyrosine kinase isoform 1	IPI00296992,IPI00397361	97,376.30	100.00%	1	1	1	0.01%	1.57%	ESFPAPVVILPFMK	R	H	95.00%	3.04	0.461	0	1	0	0	2	1,654.83	602	615	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	3	5	7	0.04%	6.85%	EGEETEGSEEDDKENDK	K	T	95.00%	1.74	0.35	0	1	0	0	2	2,099.69	473	489	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	3	5	7	0.04%	6.85%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.61	0.552	0	0	3	1	2	3,586.35	473	502	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	3	5	7	0.04%	6.85%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	5.32	0.498	0	1	1	0	2	2,869.29	503	526	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	AAGARPLTSPESLSR	K	D	95.00%	2.67	0.347	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	87.30%	5.32	0.0331	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	3.49	0.156	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	ENASPAPGTTAEEAMSR	R	G	95.00%	2.81	0.478	0	1	1	0	2	1,798.73	964	980	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.85	0.499	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.41	0.403	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216LR_PC2_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.90%	3	4	4	0.03%	4.43%	GVGSGPHPPPDTQQPSPSK	R	A	79.90%	2.24	0.211	0	0	1	0	2	1,852.82	646	663	TRUE	
SNU216LR_PC2_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.90%	3	4	4	0.03%	4.43%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	4.84	0.417	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216LR_PC2_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.90%	3	4	4	0.03%	4.43%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.2	0.544	0	0	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC2_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.47%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	90.50%	2.96	0.174	0	0	1	0	2	2,784.31	1467	1492	TRUE	
SNU216LR_PC2_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.47%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.81	0.363	0	0	1	0	2	2,366.08	1320	1340	TRUE	
SNU216LR_PC2_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.47%	SVVSDLEADDVK	K	G	95.00%	2.15	0.3	0	1	0	0	2	1,356.59	1455	1466	TRUE	
SNU216LR_PC2_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.47%	TQMAEVLPSPR	K	G	95.00%	2.68	0.446	0	1	0	0	2	1,308.60	1286	1296	TRUE	
SNU216LR_PC2_02	KIAA0802 protein	IPI00411635	179,577.30	99.80%	2	3	3	0.02%	2.49%	DHAPSIPTSPFGDSLESSTELRR	R	H	95.00%	3.97	0.272	0	0	1	0	2	2,579.18	249	271	TRUE	
SNU216LR_PC2_02	KIAA0802 protein	IPI00411635	179,577.30	99.80%	2	3	3	0.02%	2.49%	REGPVGGESDSEEMFEK	K	T	95.00%	3.45	0.345	0	1	1	0	2	1,962.78	403	419	TRUE	
SNU216LR_PC2_02	Isoform 1 of SWI/SNF-related matrix-associated a	IPI00339381,IPI00759790	99,922.60	99.80%	1	1	1	0.01%	2.28%	KTAVQYIESSDSEEIETSELPQK	R	M	95.00%	3.37	0.326	0	0	1	0	2	2,691.23	267	289	TRUE	
SNU216LR_PC2_02	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	1	1	2	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	6.77	0.0842	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216LR_PC2_02	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	2	2	0.01%	6.79%	EATAQKPTGSVGSTVTTPPPLVR	K	G	95.00%	2.51	0.278	0	0	1	0	2	2,374.20	173	195	TRUE	
SNU216LR_PC2_02	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	2	2	0.01%	6.79%	RPPSPDVIVLSDNEQPSSPR	R	V	95.00%	3.31	0.349	0	1	0	0	2	2,430.01	97	116	TRUE	
SNU216LR_PC2_02	NAD-dependent deacetylase sirtuin-1	IPI00016802	81,682.60	99.60%	2	2	2	0.01%	2.68%	RDGPGLERSPGEPGGAAPER	R	E	92.70%	3.1	0.14	0	0	1	0	2	2,084.95	39	58	TRUE	
SNU216LR_PC2_02	NAD-dependent deacetylase sirtuin-1	IPI00016802	81,682.60	99.60%	2	2	2	0.01%	2.68%	SPGEPGGAAPER	R	E	95.00%	2.79	0.504	0	1	0	0	2	1,204.50	47	58	TRUE	
SNU216LR_PC2_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.03%	1.66%	GRSFAGNLNTYK	R	R	95.00%	2.58	0.197	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216LR_PC2_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.03%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	3.43	0.254	0	0	1	0	2	1,563.74	384	396	TRUE	
SNU216LR_PC2_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.03%	1.66%	SFAGNLNTYK	R	R	86.50%	2.28	0.13	0	1	0	0	2	1,194.52	386	395	TRUE	
SNU216LR_PC2_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	4	4	4	0.03%	1.66%	SFAGNLNTYKR	R	L	91.10%	2.04	0.199	0	1	0	0	2	1,350.62	386	396	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.4	0.399	0	0	1	0	2	2,259.04	1316	1334	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.11	0.241	0	0	2	0	2	1,976.90	433	451	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.91	0.507	0	0	2	0	2	2,932.38	374	401	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	MGQAPSQSLLPPAQDQPRSPVPSAFSDQSI	R	C	95.00%	3.35	0.251	0	0	1	0	2	3,259.52	2431	2460	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	QGSITSPQANEQSVTPQR	R	R	95.00%	3.43	0.405	0	1	0	0	2	2,007.91	852	869	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	RVPSPTPAPK	K	E	80.20%	2.24	0.155	0	1	0	0	2	1,129.58	2578	2587	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	SGSSQELDVKPSASPQER	R	S	95.00%	3.18	0.396	0	1	0	0	2	2,061.85	1539	1556	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	THTTALAGRSPSPASGR	K	R	95.00%	2.55	0.297	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216LR_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	9	9	11	0.07%	6.21%	VSGRTSPPLLDR	R	A	95.00%	2.55	0.271	0	1	0	0	2	1,377.69	2393	2404	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.54	0.561	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	DDISEIQSLASDHSGR	R	S	95.00%	2.68	0.217	0	1	0	0	2	1,809.77	287	302	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	95.00%	3.98	0.25	0	0	0	1	2	3,211.37	883	909	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	3.34	0.176	0	0	0	1	2	2,165.08	346	365	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.58	0.325	0	0	1	1	2	3,651.55	111	140	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	3.92	0.368	0	0	0	1	2	3,866.70	877	909	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	SVASSQPAKPTK	R	V	95.00%	2.47	0.267	0	1	0	0	2	1,280.62	175	186	TRUE	
SNU216LR_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	10	11	0.07%	7.78%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	5.18	0.345	0	0	2	1	2	3,443.49	112	140	TRUE	
SNU216LR_PC2_02	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	95.00%	2.36	0.357	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216LR_PC2_02	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.95	0.487	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC2_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	3	3	0.02%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.49	0.251	0	1	1	0	2	2,020.82	45	61	TRUE	
SNU216LR_PC2_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	3	3	0.02%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	4.5	0.481	0	0	0	1	2	2,176.93	44	61	TRUE	
SNU216LR_PC2_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	99.80%	2	2	3	0.02%	10.60%	GVDEQSDSSEESEEEKPPEEDKEEEEEK	K	K	95.00%	4.15	0.478	0	0	2	0	2	3,332.29	300	327	TRUE	
SNU216LR_PC2_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	99.80%	2	2	3	0.02%	10.60%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	4.28	0.53	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	2	0.01%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.73	0.62	0	1	1	0	2	2,727.04	12	35	TRUE	
SNU216LR_PC2_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	99.80%	2	2	2	0.01%	1.21%	TSPINEDIR	R	S	95.00%	2.02	0.275	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216LR_PC2_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	99.80%	2	2	2	0.01%	1.21%	VASDTEEADR	K	T	95.00%	2.03	0.353	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216LR_PC2_02	Tumor endothelial marker 4	IPI00152007	221,674.00	99.90%	2	3	3	0.02%	2.38%	DSPSAGGPVGQLEPIPIPAPASPGTRPTLK	R	D	95.00%	4.88	0.263	0	0	1	0	2	2,987.52	506	535	TRUE	
SNU216LR_PC2_02	Tumor endothelial marker 4	IPI00152007	221,674.00	99.90%	2	3	3	0.02%	2.38%	SLSNPDIASETLTLLSFLR	K	S	95.00%	4.17	0.484	0	1	1	0	2	2,157.08	461	479	TRUE	
SNU216LR_PC2_02	heterogeneous nuclear ribonucleoprotein U isofor	IPI00644079	90,585.20	100.00%	1	1	1	0.01%	3.88%	LQAALDDEEAGGRPAMEPGNGSLDLGGDS	R	S	95.00%	4.81	0.367	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216LR_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	4.86%	EESEESEAEPVQR	R	T	95.00%	2.62	0.243	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216LR_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	4.86%	ESEQESEEEILAQK	K	K	95.00%	3.66	0.392	0	1	0	0	2	1,728.72	222	235	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	DVEDMELSDVEDDGSK	R	I	95.00%	3.27	0.459	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	3.88	0.0501	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.07	0.436	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216LR_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	5	0.03%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	2.87	0.337	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216LR_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	5	0.03%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	5.09	0.399	0	1	0	0	2	2,129.88	78	96	TRUE	
SNU216LR_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	5	0.03%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	3.41	0.445	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216LR_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	5	0.03%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	5.22	0.482	0	0	1	0	2	2,257.97	77	96	TRUE	
SNU216LR_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	5	0.03%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.54	0.416	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216LR_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	ILATDVSSKNTPDSK	K	K	95.00%	3.35	0.26	0	1	0	0	2	1,655.79	120	134	TRUE	
SNU216LR_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	ILATDVSSKNTPDSKK	K	I	95.00%	3.01	0.175	0	0	1	0	2	1,783.88	120	135	TRUE	
SNU216LR_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	NDVDDEEVHGSSDDSK	K	Q	95.00%	2.97	0.517	0	1	0	0	2	1,907.62	699	714	TRUE	
SNU216LR_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	NDVDDEEVHGSSDDSKQSK	K	V	95.00%	2.4	0.474	0	1	0	0	2	2,330.77	699	717	TRUE	
SNU216LR_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	PSGGFVISGVLSPDTISSK	R	R	95.00%	3.42	0.098	0	1	0	0	2	1,927.94	762	780	TRUE	
SNU216LR_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	SEESPVYSNSSVR	K	N	95.00%	3.28	0.484	0	1	0	0	2	1,520.63	535	547	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	100.00%	2	2	2	0.01%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	5.08	0.444	0	0	1	0	2	2,780.35	101	124	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	100.00%	2	2	2	0.01%	2.28%	SPTSPLNMK	K	L	95.00%	2.02	0.296	0	1	0	0	2	1,054.46	116	124	TRUE	
SNU216LR_PC2_02	TAF3 RNA polymerase II, TATA box binding prote	IPI00477959	103,584.30	99.80%	2	2	2	0.01%	4.95%	IPPMLSPVHVQDSTDLAPPSPEPPMLAPVAI	K	S	95.00%	3.44	0.176	0	0	1	0	2	3,391.61	224	254	TRUE	
SNU216LR_PC2_02	TAF3 RNA polymerase II, TATA box binding prote	IPI00477959	103,584.30	99.80%	2	2	2	0.01%	4.95%	RPLDSPEAEELPAMK	K	R	95.00%	3.55	0.46	0	1	0	0	2	1,762.81	179	193	TRUE	
SNU216LR_PC2_02	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	2	2	2	0.01%	2.75%	KVNVTVDYIRPASPATETVPAFSER	K	T	95.00%	4.36	0.0953	0	0	1	0	2	2,827.40	414	438	TRUE	
SNU216LR_PC2_02	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	2	2	2	0.01%	2.75%	VNVTVDYIRPASPATETVPAFSER	K	T	92.00%	4.34	0.0819	0	0	1	0	2	2,699.31	415	438	TRUE	
SNU216LR_PC2_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	94.80%	2.61	0.168	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC2_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.74	0.261	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC2_02	smooth muscle cell associated protein-1 isoform	IPI00072534	103,078.90	100.00%	2	2	2	0.01%	1.48%	PATPGASSVEQLR	R	K	95.00%	1.91	0.303	0	1	0	0	2	1,392.65	13	25	TRUE	
SNU216LR_PC2_02	smooth muscle cell associated protein-1 isoform	IPI00072534	103,078.90	100.00%	2	2	2	0.01%	1.48%	PATPGASSVEQLRK	R	E	95.00%	3.2	0.369	0	0	1	0	2	1,520.75	13	26	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	ATLSSTSGLDLMSESGEGEISPQR	K	E	95.00%	4.47	0.389	0	1	0	0	2	2,532.12	672	695	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	EGFESDTDSEFTFK	R	M	95.00%	2.36	0.292	0	1	0	0	2	1,718.65	272	285	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	4.53	0.132	0	1	0	0	2	2,128.98	652	671	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	SASVNKEPVSLPGIMR	R	R	95.00%	3.23	0.359	0	0	1	0	2	1,764.87	1157	1172	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	SHSPSASQSGSQLR	R	N	95.00%	2.33	0.365	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	SWASPVYTEADGTFSR	R	L	95.00%	3.12	0.379	0	1	0	0	2	1,853.77	342	357	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	TPNNVVSTPAPSPDASQLASSLSSQK	R	E	95.00%	4.36	0.162	0	0	1	0	2	2,663.26	615	640	TRUE	
SNU216LR_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	8	0.05%	10.70%	TSTTGVATTQSPTPR	K	S	95.00%	2.59	0.385	0	1	0	0	2	1,584.73	1242	1256	TRUE	
SNU216LR_PC2_02	Alpha-taxilin	IPI00470779	61,891.20	99.80%	1	1	1	0.01%	6.59%	SSPGQPEAGPEGAQERPSQAAPAVEAEGPC	K	K	95.00%	4.09	0.241	0	0	0	1	2	3,564.60	18	53	TRUE	
SNU216LR_PC2_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	99.80%	2	2	2	0.01%	4.15%	ASVTT	S	T	95.00%	0.63	0.825	1	0	0	0	0	718.1497	439	443	TRUE	IPI00005826
SNU216LR_PC2_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	99.80%	2	2	2	0.01%	4.15%	MIGFPSSAGSVSPR	K	S	95.00%	2.68	0.404	0	1	0	0	2	1,472.66	416	429	TRUE	
SNU216LR_PC2_02	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	3	3	0.02%	6.35%	AASPPLKGSVSSEASELDKK	K	E	95.00%	3.98	0.312	0	0	1	0	2	2,081.02	537	556	TRUE	
SNU216LR_PC2_02	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	3	3	0.02%	6.35%	LKEGHETPMDIDSDDSK	K	A	95.00%	3.39	0.331	0	0	1	0	2	1,996.82	520	536	TRUE	
SNU216LR_PC2_02	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	3	3	0.02%	6.35%	QQFSPSMTER	K	K	93.70%	2.12	0.207	0	1	0	0	2	1,290.52	199	208	TRUE	
SNU216LR_PC2_02	Pre-mRNA-splicing factor PRP17	IPI00026307	65,522.00	100.00%	2	2	2	0.01%	6.04%	SPSSKPSLAVAVDSAPEVAVK	K	E	95.00%	2.9	0.194	0	0	1	0	2	2,119.07	43	63	TRUE	
SNU216LR_PC2_02	Pre-mRNA-splicing factor PRP17	IPI00026307	65,522.00	100.00%	2	2	2	0.01%	6.04%	SPSSKPSLAVAVDSAPEVAVKEDLETGVHLD	K	E	95.00%	5.72	0.317	0	0	0	1	2	3,622.83	43	77	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.09	0.556	0	1	1	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	K	95.00%	4.78	0.383	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	E	95.00%	4.96	0.454	0	0	0	1	2	3,659.47	225	257	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.74	0.527	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	5.21	0.545	0	0	1	0	2	3,659.47	224	256	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	5.37	0.54	0	3	2	0	2	2,174.04	104	122	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	LSVPTSDEEDEVPAPK	K	P	95.00%	2.76	0.242	0	1	0	0	2	1,792.79	105	120	TRUE	
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.76	0.465	0	2	2	0	2	2,045.94	105	122	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	13	18	0.12%	8.63%	QQPPEPEWIGDGESTSPSDK	K	V	95.00%	2.92	0.22	0	1	0	0	2	2,263.94	7	26	TRUE	
SNU216LR_PC2_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	3	4	4	0.03%	5.34%	LLQETELVEPLTPSGAMPNQAQMR	R	I	95.00%	4.03	0.29	0	0	1	0	2	2,733.30	660	683	TRUE	
SNU216LR_PC2_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	3	4	4	0.03%	5.34%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.29	0.414	0	1	0	0	2	1,993.88	1024	1042	TRUE	
SNU216LR_PC2_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	3	4	4	0.03%	5.34%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.37	0.568	0	1	1	0	2	2,329.01	1043	1066	TRUE	
SNU216LR_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	6	7	0.04%	8.05%	AAKLSEGSQPAEEEEDQETPSR	K	N	95.00%	4.41	0.439	0	0	1	0	2	2,468.05	236	257	TRUE	
SNU216LR_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	6	7	0.04%	8.05%	AESPAEKVPEESVLPLVQK	K	S	95.00%	3.72	0.272	0	0	1	0	2	2,130.07	488	506	TRUE	
SNU216LR_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	6	7	0.04%	8.05%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.31	0.284	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216LR_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	6	7	0.04%	8.05%	RLSQPESAEK	R	H	94.70%	2.23	0.177	0	1	0	0	2	1,224.56	708	717	TRUE	
SNU216LR_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	6	7	0.04%	8.05%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.79	0.415	0	0	0	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	6	6	7	0.04%	8.05%	TAQVPSPPR	R	G	95.00%	2.46	0.424	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	6	7	0.04%	5.32%	ALEEGDGSVSGSSPR	R	S	95.00%	3.59	0.43	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216LR_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	6	7	0.04%	5.32%	IDENSDKEMEVEESPEK	K	I	95.00%	3.3	0.423	0	2	1	0	2	2,087.84	493	509	TRUE	
SNU216LR_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	6	7	0.04%	5.32%	IDENSDKEMEVEESPEKIK	K	V	95.00%	3	0.258	0	0	1	0	2	2,408.98	493	511	TRUE	
SNU216LR_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	6	7	0.04%	5.32%	TGRDTPENGETAIGAENSEK	K	I	95.00%	2.93	0.384	0	1	1	0	2	2,155.91	473	492	TRUE	
SNU216LR_PC2_02	Isoform B of AP-2 complex subunit alpha-1	IPI00256684,IPI00304577	107,557.70	100.00%	1	1	1	0.01%	3.35%	RDPSSNDINGGMEPTPSTVSTPSPSADLLGI	R	A	95.00%	5.75	0.0914	0	0	1	0	2	3,348.54	633	664	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	100.00%	4	5	5	0.03%	12.20%	AHLDHIPDYTPPLLTTISPEQESDER	R	K	95.00%	6.57	0.503	0	0	1	0	2	3,054.41	69	94	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	100.00%	4	5	5	0.03%	12.20%	AHLDHIPDYTPPLLTTISPEQESDERK	R	C	95.00%	3.83	0.287	0	0	0	1	2	3,182.50	69	95	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	100.00%	4	5	5	0.03%	12.20%	ITFITSFGGSDEEAAAAAAAAAASGVTTGKP	R	N	95.00%	6.51	0.45	0	0	1	1	2	4,099.98	311	354	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	100.00%	4	5	5	0.03%	12.20%	RDSPTYDPYKR	R	S	95.00%	2.82	0.343	0	0	1	0	2	1,477.65	277	287	TRUE	
SNU216LR_PC2_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	5	0.03%	3.57%	IIYDSDSESEETLQVK	R	N	94.30%	3.72	0.0407	0	2	0	0	2	1,935.85	65	80	TRUE	
SNU216LR_PC2_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	5	0.03%	3.57%	NKPLSPIK	K	L	95.00%	1.57	0.191	1	0	0	0	2	976.5229	152	159	TRUE	
SNU216LR_PC2_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	5	0.03%	3.57%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	5.15	0.495	0	0	2	0	2	2,798.45	152	176	TRUE	
SNU216LR_PC2_02	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	2	4	4	0.03%	5.87%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	4.85	0.377	0	1	1	0	2	2,616.22	446	467	TRUE	
SNU216LR_PC2_02	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	2	4	4	0.03%	5.87%	SANGGSESDGEENIGWSTVNLDEEK	R	Q	95.00%	4.58	0.55	0	1	1	0	2	2,704.09	591	615	TRUE	
SNU216LR_PC2_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	4	4	0.03%	3.99%	GPSQEEEDNHSDEEDR	R	A	95.00%	4.06	0.574	0	1	1	0	2	1,952.68	57	72	TRUE	
SNU216LR_PC2_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	4	4	0.03%	3.99%	LGVSVSPSR	K	A	95.00%	2.13	0.297	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216LR_PC2_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	4	4	0.03%	3.99%	SQDQDSEVNELSR	K	G	95.00%	2.95	0.298	0	1	0	0	2	1,586.63	78	90	TRUE	
SNU216LR_PC2_02	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.03%	7.41%	KASPEPPDSAEGALK	R	L	95.00%	4.35	0.437	0	1	1	0	2	1,576.73	545	559	TRUE	
SNU216LR_PC2_02	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.03%	7.41%	RPGSVSSTDQER	K	E	87.20%	2.15	0.17	0	1	0	0	2	1,398.60	331	342	TRUE	
SNU216LR_PC2_02	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.03%	7.41%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	D	95.00%	4.83	0.393	0	0	1	0	2	3,241.49	610	641	TRUE	
SNU216LR_PC2_02	Caskin-2	IPI00103516	126,713.60	99.80%	2	2	2	0.01%	2.83%	GSGHSQEQPAPQPSGGDPSPPQER	R	N	95.00%	4.75	0.43	0	0	1	0	2	2,507.06	707	730	TRUE	
SNU216LR_PC2_02	Caskin-2	IPI00103516	126,713.60	99.80%	2	2	2	0.01%	2.83%	SPSQESIGAR	R	S	95.00%	1.69	0.291	0	1	0	0	2	1,111.48	695	704	TRUE	
SNU216LR_PC2_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	2.28	0.209	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216LR_PC2_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	SSDGSLSHEEDLAK	R	V	95.00%	2.55	0.196	0	1	0	0	2	1,554.63	238	251	TRUE	
SNU216LR_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	16	0.10%	11.60%	EVEEDSEDEEMSEDEEDDSSGEEVVIPQKK	K	G	95.00%	2.28	0.237	0	0	1	0	2	3,681.30	23	52	TRUE	
SNU216LR_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	16	0.10%	11.60%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	6.8	0.716	0	0	5	2	2	4,215.41	119	153	TRUE	
SNU216LR_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	16	0.10%	11.60%	KVVVSPTKK	K	V	95.00%	2.09	0.255	0	1	0	0	2	1,065.61	63	71	TRUE	
SNU216LR_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	16	0.10%	11.60%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	K	95.00%	4.35	0.475	0	0	1	0	2	4,014.60	17	51	TRUE	
SNU216LR_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	16	0.10%	11.60%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	G	95.00%	5.13	0.44	0	0	3	3	2	4,142.70	17	52	TRUE	
SNU216LR_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	5	7	7	0.04%	4.89%	AKNWEDEDFYDSDDDTFLDR	K	T	95.00%	4.73	0.547	0	1	1	0	2	2,575.98	455	474	TRUE	
SNU216LR_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	5	7	7	0.04%	4.89%	KMLGEDSDEEEEMDTSER	K	K	95.00%	4.73	0.557	0	1	1	0	2	2,209.82	306	323	TRUE	
SNU216LR_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	5	7	7	0.04%	4.89%	KMLGEDSDEEEEMDTSERK	K	I	95.00%	4.68	0.481	0	0	1	0	2	2,337.91	306	324	TRUE	
SNU216LR_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	5	7	7	0.04%	4.89%	MLGEDSDEEEEMDTSER	K	K	95.00%	3.73	0.367	0	1	0	0	2	2,081.72	307	323	TRUE	
SNU216LR_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	5	7	7	0.04%	4.89%	NWEDEDFYDSDDDTFLDR	K	T	95.00%	4.1	0.455	0	1	0	0	2	2,376.85	457	474	TRUE	
SNU216LR_PC2_02	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	3	5	0.03%	2.27%	EAARSPDKPGGSPSASR	R	R	95.00%	2.76	0.332	0	2	2	0	2	1,829.76	45	61	TRUE	
SNU216LR_PC2_02	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	3	5	0.03%	2.27%	SPDKPGGSPSASR	R	R	95.00%	1.77	0.299	0	1	0	0	2	1,402.54	49	61	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.03	0.397	0	1	1	0	2	1,792.91	524	539	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.26	0.535	0	0	1	1	2	3,607.64	74	113	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	ETESAPGSPR	K	A	95.00%	1.96	0.423	1	1	0	0	2	1,110.45	514	523	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.2	0.382	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	HSSNPPLESHVGWVMDSR	R	E	95.00%	4.35	0.447	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	KGSKVGDFGDAINWPTPGEIAHK	R	S	94.60%	2.92	0.201	0	0	0	1	2	2,504.20	163	185	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	KNTFTAWSDEESDYEIDDRDVNK	R	I	95.00%	4.39	0.366	0	0	1	0	2	2,857.18	620	642	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.82	0.401	0	0	2	0	2	2,405.19	130	152	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	NTFTAWSDEESDYEIDDR	K	D	95.00%	4.1	0.125	0	1	0	0	2	2,272.86	621	638	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	5.02	0.459	0	1	1	0	2	2,729.09	621	642	TRUE	
SNU216LR_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	15	17	0.11%	16.80%	SLPTTVPESPNYR	R	N	95.00%	2.67	0.437	0	2	0	0	2	1,620.67	766	778	TRUE	
SNU216LR_PC2_02	Histone deacetylase 1	IPI00013774	55,104.10	99.80%	1	2	4	0.03%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	I	95.00%	6.51	0.515	0	0	2	2	2	3,711.58	372	404	TRUE	
SNU216LR_PC2_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	DLSPTLIDNSAAK	R	Q	95.00%	2.38	0.27	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216LR_PC2_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	FQSQADQDQQASGLQSPPSR	K	D	95.00%	4.09	0.513	0	1	1	0	2	2,254.97	466	485	TRUE	
SNU216LR_PC2_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	4.75	0.507	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC2_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	4.31	0.445	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216LR_PC2_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	99.60%	2	2	2	0.01%	2.15%	NSSNTSVGSPSNTIGR	K	T	95.00%	3.56	0.113	0	1	0	0	2	1,657.72	1055	1070	TRUE	
SNU216LR_PC2_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	99.60%	2	2	2	0.01%	2.15%	RQSSGSATNVASTPDNR	R	G	91.90%	2.15	0.227	0	1	0	0	2	1,827.80	644	660	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	99.80%	1	1	1	0.01%	1.09%	LFVLLPEQSPVSYSK	R	R	95.00%	3.04	0.367	0	1	0	0	2	1,786.90	736	750	TRUE	
SNU216LR_PC2_02	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	100.00%	2	3	3	0.02%	5.07%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	7.13	0.519	0	0	1	1	2	4,052.72	188	220	TRUE	
SNU216LR_PC2_02	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	100.00%	2	3	3	0.02%	5.07%	SFVPEEEKHEER	R	V	95.00%	2.47	0.284	0	0	1	0	2	1,595.67	835	846	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM6	IPI00031517	92,890.60	100.00%	1	1	1	0.01%	1.83%	EIESEIDSEEELINK	K	K	95.00%	3.95	0.288	0	1	0	0	2	1,856.81	755	769	TRUE	
SNU216LR_PC2_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	17	0.11%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	5.22	0.571	0	2	2	0	2	2,141.98	652	670	TRUE	
SNU216LR_PC2_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	17	0.11%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.59	0.517	0	10	2	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC2_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	17	0.11%	4.08%	TSVQTEDDQLIAGQSAR	R	A	95.00%	3.58	0.452	0	1	0	0	2	1,898.85	654	670	TRUE	
SNU216LR_PC2_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.2	0.236	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216LR_PC2_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.9	0.275	0	1	1	0	2	2,040.01	441	461	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	4.88	0.109	0	1	0	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC2_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	3	3	0.02%	1.56%	SGEGEVSGLMR	R	K	95.00%	2.31	0.291	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216LR_PC2_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	3	3	0.02%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.57	0.308	0	1	1	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC2_02	Double-strand-break repair protein rad21 homolo	IPI00006715	71,691.60	100.00%	1	1	1	0.01%	5.23%	EGSAFEDDDMLVSTTTSNLLLESEQSTSNLN	R	I	95.00%	5.1	0.118	0	0	1	0	2	3,684.60	173	205	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	AALAPAKESPR	R	K	95.00%	2.08	0.273	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	AASAPAKESPR	R	K	95.00%	1.78	0.337	0	1	0	0	2	1,164.54	361	371	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	DDPDGKQEAKPQQAAGMLSPK	K	T	95.00%	3.67	0.421	0	1	0	0	2	2,291.04	1162	1182	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	KLGAGEGGEASVSPEK	K	T	95.00%	3.35	0.275	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	KSAEPSANTTLVSETEEEGSVPAFGAAAK	R	P	95.00%	5.13	0.0826	0	0	1	0	2	2,958.36	159	187	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	LDSSPSVSSTLAAK	K	D	95.00%	2.33	0.366	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.52	0.277	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	SLGNILQAKPTSSPAK	K	G	95.00%	3.46	0.436	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.3	0.428	0	1	1	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	TSQVGAASAPAKESPR	K	K	95.00%	3.76	0.471	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	TSQVGAASAPAKESPRK	K	G	95.00%	3.41	0.326	0	1	0	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	14	14	0.09%	11.20%	TVANLLSGKSPR	K	K	95.00%	3.24	0.37	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC2_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	7	7	0.04%	5.22%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.66	0.484	0	1	1	0	2	2,422.92	1355	1377	TRUE	
SNU216LR_PC2_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	7	7	0.04%	5.22%	EASPAPLAQGEPGREDLPTR	R	L	93.60%	2.45	0.175	0	1	0	0	2	2,171.01	1200	1219	TRUE	
SNU216LR_PC2_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	7	7	0.04%	5.22%	EASPAPLAQGEPGREDLPTRLPALGEAHVSF	R	A	95.00%	2.96	0.22	0	0	0	1	2	3,956.94	1200	1237	TRUE	
SNU216LR_PC2_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	7	7	0.04%	5.22%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	4.1	0.368	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216LR_PC2_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	7	7	0.04%	5.22%	LPALGEAHVSPEVATADK	R	A	95.00%	4.06	0.466	0	1	0	0	2	1,884.91	1220	1237	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	2	3	3	0.02%	2.63%	HLSPYATLTVGDSSHK	K	T	95.00%	3.34	0.47	0	1	1	0	2	1,792.83	818	833	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	2	3	3	0.02%	2.63%	WYDLMDNKDKGSS	R	-	95.00%	2.51	0.347	0	1	0	0	2	1,638.65	1092	1104	TRUE	
SNU216LR_PC2_02	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	1	1	2	0.01%	2.58%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	5.48	0.411	0	0	2	0	2	3,284.37	341	369	TRUE	
SNU216LR_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.29%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	4.86	0.496	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216LR_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.29%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	5.83	0.492	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216LR_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.29%	SPPEGDTTLFLSR	R	L	95.00%	2.47	0.396	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216LR_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.29%	SSSPAGETEGDREPQAR	R	P	95.00%	2.11	0.255	0	1	0	0	2	1,853.77	1712	1728	TRUE	
SNU216LR_PC2_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.39	0.41	0	1	0	0	2	1,617.62	79	92	TRUE	
SNU216LR_PC2_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.23	0.297	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	100.00%	2	2	2	0.01%	4.88%	ASLEDAPVDDLTR	R	K	95.00%	2.62	0.382	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	100.00%	2	2	2	0.01%	4.88%	FLENGSQEDLLHGNPGSTYLASNSTSAPNW	R	S	95.00%	4.24	0.263	0	0	1	0	2	3,414.53	330	360	TRUE	
SNU216LR_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	6	7	0.04%	5.51%	HAIMRSPQMVSAIVR	R	T	95.00%	3.12	0.21	0	0	1	0	2	1,775.88	186	200	TRUE	
SNU216LR_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	6	7	0.04%	5.51%	RLSVELTSSLFR	K	T	95.00%	3.02	0.394	0	1	1	0	2	1,487.76	673	684	TRUE	
SNU216LR_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	6	7	0.04%	5.51%	RTSMGGTQQQFVEGVR	R	M	95.00%	4.91	0.569	0	1	2	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	6	7	0.04%	5.51%	TSMGGTQQQFVEGVR	R	M	95.00%	3.34	0.502	0	1	0	0	2	1,704.74	551	565	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00409607,IPI00642366	166,735.90	99.80%	2	2	2	0.01%	1.95%	LNQSSPDNVTDTK	K	G	95.00%	2.73	0.401	0	1	0	0	2	1,498.64	584	596	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00409607,IPI00642366	166,735.90	99.80%	2	2	2	0.01%	1.95%	SISNEGLTLNNSHVSK	R	H	95.00%	3.02	0.278	0	1	0	0	2	1,779.83	451	466	TRUE	
SNU216LR_PC2_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.89	0.371	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	6	6	0.04%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.88	0.522	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	6	6	0.04%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	6.01	0.414	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	6	6	0.04%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.66	0.645	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	4.34	0.39	0	0	0	1	2	2,929.37	1015	1043	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.84	0.525	0	2	1	0	2	2,090.97	1023	1043	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	NRSAEEGELAESK	R	S	95.00%	3.53	0.37	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	7.08	0.422	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	SAEEGELAESK	R	S	95.00%	2.03	0.361	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	SFGTRPLSSGFSPEEAQQQDEEFEK	R	K	95.00%	4.12	0.182	0	0	1	0	2	2,910.25	976	1000	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.47	0.555	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	SQEADVQDWEFR	R	K	95.00%	3.19	0.483	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	VPSSDEEVVEEPQSR	R	R	95.00%	4.26	0.481	0	2	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	VSGAGFSPSSK	R	M	94.00%	1.85	0.269	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	WSDQGPAQTSR	R	R	92.80%	1.99	0.235	0	1	0	0	2	1,312.53	1532	1542	TRUE	
SNU216LR_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	12	14	16	0.10%	10.30%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.23	0.556	0	1	0	0	2	2,166.01	590	608	TRUE	
SNU216LR_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	10	0.06%	6.73%	EELMSSDLEETAGSTSIPK	K	R	95.00%	3.13	0.439	0	4	0	0	2	2,183.87	515	533	TRUE	
SNU216LR_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	10	0.06%	6.73%	EEPVSSGPEEAVGK	K	S	95.00%	2.64	0.391	0	2	0	0	2	1,494.64	565	578	TRUE	
SNU216LR_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	10	0.06%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.03	0.373	0	2	0	0	2	1,936.80	562	578	TRUE	
SNU216LR_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	10	0.06%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.11	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC2_02	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	41,802.00	99.80%	2	3	3	0.02%	1.84%	GSPSSHLLGADHGLR	R	K	95.00%	3.34	0.439	0	1	1	0	2	1,583.73	257	271	TRUE	
SNU216LR_PC2_02	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	41,802.00	99.80%	2	3	3	0.02%	1.84%	GSPSSHLLGADHGLRK	R	A	95.00%	2.77	0.191	0	0	1	0	2	1,711.83	257	272	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	3	5	5	0.03%	2.64%	KGNSPNSEPPTPK	K	T	95.00%	2.92	0.203	0	1	0	0	2	1,432.65	377	389	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	3	5	5	0.03%	2.64%	LAWVGDVFTATPAEPRPLTSPLR	K	Q	95.00%	3.24	0.307	0	0	1	0	2	2,574.31	789	811	TRUE	
SNU216LR_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	3	5	5	0.03%	2.64%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	2.47	0.357	0	1	1	1	2	2,537.95	339	359	TRUE	
SNU216LR_PC2_02	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	3	3	0.02%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.14	0.221	0	1	1	0	2	1,921.87	294	311	TRUE	
SNU216LR_PC2_02	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	3	3	0.02%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	6.34	0.494	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	KPGPPLSPEIR	R	S	95.00%	2.33	0.178	0	1	0	0	2	1,270.66	421	431	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	KPGPPLSPEIRSPAGSPELR	R	K	95.00%	2.91	0.24	0	0	1	0	2	2,325.04	421	440	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	KPSGSPDLWK	R	L	95.00%	2.32	0.291	0	1	0	0	2	1,194.56	441	450	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.31	0.334	0	1	2	0	2	1,890.91	441	456	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	5.28	0.475	0	0	1	0	2	2,526.21	280	301	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	KTAPTLSPEHWK	R	A	95.00%	2.33	0.268	0	1	0	0	2	1,474.71	399	410	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	KTSPASLDFPESQK	R	S	95.00%	3.83	0.419	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.76	0.537	0	1	2	0	2	2,314.11	199	219	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	SPPASPESWK	K	S	95.00%	2.04	0.452	0	1	0	0	2	1,165.49	382	391	TRUE	
SNU216LR_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	12	14	0.09%	14.00%	TAPTLSPEHWK	K	A	95.00%	2.39	0.247	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC2_02	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	3.94	0.496	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	7.72%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	3.28	0.331	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	7.72%	EVDGLLTSEPMGSPVSSK	K	T	92.30%	3.28	0.0881	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	7.72%	GPHHLDNSSPGPGSEAR	R	G	95.00%	2.8	0.25	0	0	1	0	2	1,794.76	383	399	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	7.72%	GPPQSPVFEGVYNNSR	K	M	95.00%	3.12	0.477	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	7.72%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.75	0.368	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	6	7	7	0.04%	7.72%	QGSGRESPSLASR	R	E	95.00%	2.4	0.262	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	APESDTGDEDQDQER	R	D	95.00%	3.19	0.43	0	1	0	0	2	1,771.63	575	589	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	DKSDSDTEGLLFSR	R	D	95.00%	3.36	0.401	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	GAPSQDDESGGIEDSPDR	K	G	95.00%	4.19	0.357	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	SDSDTEGLLFSR	K	D	95.00%	2.7	0.364	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	SEAEEGEVRTPTK	R	I	95.00%	2.39	0.227	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	SLDGAEFSR	R	P	95.00%	1.9	0.334	0	1	0	0	2	1,061.43	430	438	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.31	0.348	0	0	1	1	2	2,794.21	430	455	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.88	0.407	0	0	2	0	2	2,540.10	639	659	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	10	11	0.07%	14.20%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	K	T	88.20%	5.72	0.0213	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216LR_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	6	9	0.06%	3.72%	DSGNWDTSGSELSEGELEK	K	R	95.00%	3.52	0.338	0	1	0	0	2	2,119.83	908	926	TRUE	
SNU216LR_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	6	9	0.06%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	94.40%	3.3	0.0816	0	1	0	0	2	2,355.90	908	927	TRUE	
SNU216LR_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	6	9	0.06%	3.72%	HKSDSPESDAEREK	R	D	95.00%	3.03	0.449	0	3	2	1	2	1,694.70	863	876	TRUE	
SNU216LR_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	6	9	0.06%	3.72%	SDSPESDAEREK	K	D	95.00%	1.88	0.299	0	1	0	0	2	1,509.51	865	876	TRUE	
SNU216LR_PC2_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	2	3	4	0.03%	3.32%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	4.3	0.482	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216LR_PC2_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	2	3	4	0.03%	3.32%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.1	0.475	0	0	2	0	2	2,992.36	1263	1291	TRUE	
SNU216LR_PC2_02	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	2	2	0.01%	4.82%	HELSPPQKR	R	M	95.00%	1.68	0.305	0	1	0	0	2	1,171.56	71	79	TRUE	
SNU216LR_PC2_02	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	2	2	0.01%	4.82%	LIHTLDDRTQLWASEPGTPPLPTSLPSQNPIL	K	N	95.00%	5.39	0.166	0	0	0	1	2	3,715.91	527	559	TRUE	
SNU216LR_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	5	5	0.03%	10.10%	ENHGQADHSPSMTATHFPR	R	V	95.00%	3.99	0.299	0	0	1	0	2	2,199.90	254	272	TRUE	
SNU216LR_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	5	5	0.03%	10.10%	ERTESEVPPRPASPK	K	V	95.00%	2.24	0.31	0	1	0	0	2	1,759.84	532	546	TRUE	
SNU216LR_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	5	5	0.03%	10.10%	NSGSSQGLGGSPGSHSHTTMANK	K	V	95.00%	3.57	0.242	0	0	1	0	2	2,278.95	165	187	TRUE	
SNU216LR_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	5	5	0.03%	10.10%	SPPETAAPVEDMAR	R	R	91.20%	2.25	0.184	0	1	0	0	2	1,550.66	550	563	TRUE	
SNU216LR_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	5	5	0.03%	10.10%	TESEVPPRPASPK	R	V	95.00%	2.83	0.451	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216LR_PC2_02	sarcolemma associated protein	IPI00030531	93,205.10	100.00%	3	3	3	0.02%	3.70%	AKESDFSDTLSPSKEK	R	S	95.00%	3.05	0.382	0	1	0	0	2	1,848.83	425	440	TRUE	
SNU216LR_PC2_02	sarcolemma associated protein	IPI00030531	93,205.10	100.00%	3	3	3	0.02%	3.70%	ESDFSDTLSPSKEK	K	S	95.00%	2.65	0.177	0	1	0	0	2	1,649.69	427	440	TRUE	
SNU216LR_PC2_02	sarcolemma associated protein	IPI00030531	93,205.10	100.00%	3	3	3	0.02%	3.70%	SDVIHAPLPSPVDK	R	V	95.00%	2.91	0.336	0	1	0	0	2	1,554.76	139	152	TRUE	
SNU216LR_PC2_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.90%	2	2	2	0.01%	4.15%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	3.8	0.3	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216LR_PC2_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.90%	2	2	2	0.01%	4.15%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	91.70%	6.58	0.0029	0	0	1	0	2	3,783.64	362	396	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	EEELEETGNQHNDVEIEEAGEEEEKEIAIVHS	R	E	95.00%	4.91	0.321	0	0	0	1	2	4,187.79	316	351	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	6.84	0.59	0	0	1	1	2	3,065.37	341	365	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.51	0.442	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	QESDPEDDDVK	R	K	95.00%	3.56	0.532	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.91	0.484	0	1	2	1	2	2,653.22	98	121	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.49	0.482	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	SLSPGKENVSALDMEK	K	E	95.00%	3.58	0.497	0	2	1	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	13	15	0.10%	16.60%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	3.72	0.36	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216LR_PC2_02	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	3	3	0.02%	2.22%	RSLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	5.02	0.457	0	0	1	0	2	2,733.35	646	671	TRUE	
SNU216LR_PC2_02	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	3	3	0.02%	2.22%	SLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	4.37	0.509	0	1	1	0	2	2,577.24	647	671	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	7	0.04%	10.00%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.61	0.511	0	1	1	0	2	2,319.95	172	193	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	7	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHK	R	K	95.00%	6.19	0.425	0	0	1	0	2	2,991.38	621	648	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	7	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHKKP.	R	R	95.00%	4.97	0.343	0	0	1	2	2	3,720.74	621	654	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	7	0.04%	10.00%	YVDEENSDGETSNHR	K	L	95.00%	3.44	0.528	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216LR_PC2_02	Isoform Alpha of Signal transducer and activator	IPI00030781	87,336.90	100.00%	1	1	1	0.01%	2.67%	LQTTDNLLPMSPEEFDEVSR	R	I	95.00%	4.07	0.342	0	1	0	0	2	2,401.06	717	736	TRUE	
SNU216LR_PC2_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	2	3	3	0.02%	2.64%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.86	0.416	0	1	1	0	2	2,114.05	687	705	TRUE	
SNU216LR_PC2_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	2	3	3	0.02%	2.64%	MHLPSPTDSNFYR	R	A	95.00%	2.52	0.428	0	1	0	0	2	1,644.69	987	999	TRUE	
SNU216LR_PC2_02	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.18%	EDENDASDDEDDDEKR	R	R	95.00%	2.48	0.473	0	1	0	0	2	1,976.65	256	271	TRUE	
SNU216LR_PC2_02	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.18%	EDENDASDDEDDDEKRR	R	I	95.00%	2.67	0.451	0	1	0	0	2	2,132.75	256	272	TRUE	
SNU216LR_PC2_02	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.18%	LVREDENDASDDEDDDEK	R	R	95.00%	2.39	0.201	0	1	0	0	2	2,188.80	253	270	TRUE	
SNU216LR_PC2_02	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.18%	LVREDENDASDDEDDDEKR	R	R	95.00%	4.69	0.511	0	0	1	0	2	2,344.91	253	271	TRUE	
SNU216LR_PC2_02	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	81,354.10	99.80%	2	2	3	0.02%	3.15%	APSIDGKEELDLAEK	K	M	95.00%	2.35	0.226	0	1	0	0	2	1,694.79	279	293	TRUE	
SNU216LR_PC2_02	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	81,354.10	99.80%	2	2	3	0.02%	3.15%	ATPPPSPLLSELLKK	K	G	95.00%	3.8	0.399	0	0	2	0	2	1,670.91	123	137	TRUE	
SNU216LR_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	5	7	0.04%	3.18%	FDHESSPGTDEDK	K	S	95.00%	1.96	0.477	0	1	0	0	2	1,703.49	740	752	TRUE	
SNU216LR_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	5	7	0.04%	3.18%	FDHESSPGTDEDKSG	K	-	95.00%	3.79	0.49	0	2	0	0	2	1,687.61	740	754	TRUE	
SNU216LR_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	5	7	0.04%	3.18%	KFDHESSPGTDEDK	K	S	95.00%	1.9	0.386	0	1	0	0	2	1,831.59	739	752	TRUE	
SNU216LR_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	5	7	0.04%	3.18%	KFDHESSPGTDEDKSG	K	-	95.00%	2.89	0.301	0	2	0	0	2	1,815.71	739	754	TRUE	
SNU216LR_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	5	7	0.04%	3.18%	SETPPHWR	R	Q	95.00%	1.61	0.288	0	1	0	0	2	1,089.45	356	363	TRUE	
SNU216LR_PC2_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.82%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	3.79	0.324	0	0	1	0	2	2,547.16	2310	2332	TRUE	
SNU216LR_PC2_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.82%	VTGPRLVSNHSLHETSSVFVDSLTK	K	A	95.00%	3.49	0.206	0	0	0	1	2	2,790.38	2515	2539	TRUE	
SNU216LR_PC2_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00013070,IPI00167147	90,292.70	100.00%	1	1	1	0.01%	1.75%	NYILDQTNVYGSAQR	R	R	95.00%	2.84	0.205	0	1	0	0	2	1,821.82	501	515	TRUE	
SNU216LR_PC2_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	1	1	0.01%	4.10%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.06	0.251	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	4.47	0.36	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	AEAPLPSPK	K	L	95.00%	2.06	0.245	0	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	APDVDVNIAGPDAALKVDVKSPK	K	T	95.00%	6.22	0.569	0	0	1	0	2	2,399.22	2128	2150	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.18	0.463	0	3	2	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.84	0.363	0	0	1	0	2	1,997.91	2819	2838	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	GGVTGSPEASISGSK	K	G	95.00%	2.47	0.238	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	GHYEVTGSDDETGK	K	L	95.00%	2.45	0.437	0	1	1	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.96	0.474	0	1	1	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	95.00%	3.21	0.172	0	0	1	0	2	2,730.26	2905	2930	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	GKGGVTGSPEASISGSK	K	G	95.00%	3.07	0.132	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	3.19	0.182	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	GPAFNMASPESDFGINLK	K	G	95.00%	3.85	0.442	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	ISAPNVDFNLEGPK	R	V	95.00%	2.76	0.496	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	ISMQDVDLSLGSPK	K	L	95.00%	2.92	0.31	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	ISMSEVDLNVAAPK	R	V	90.60%	1.99	0.242	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	SKGHYEVTGSDDETGK	K	L	95.00%	3.36	0.397	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	92.00%	5.82	0.0371	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	89.30%	4.87	0.0671	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.63	0.108	0	0	1	0	2	2,194.92	2816	2836	TRUE	
SNU216LR_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	26	29	0.19%	8.04%	VKTPEMIIQKPK	K	I	95.00%	3.15	0.435	0	1	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC2_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	2	2	0.01%	1.87%	TAFYNEDDSEEEQR	R	Q	95.00%	2.78	0.328	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216LR_PC2_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	2	2	0.01%	1.87%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.15	0.456	0	1	0	0	2	2,309.91	1279	1298	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	5	5	6	0.04%	4.47%	EQPEMEDANSEK	R	S	95.00%	2.73	0.423	0	1	0	0	2	1,486.54	11	22	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	5	5	6	0.04%	4.47%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.43	0.448	0	0	2	0	2	3,454.32	11	39	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	5	5	6	0.04%	4.47%	EVIDASDKEGMSPAK	K	R	95.00%	2.51	0.198	0	1	0	0	2	1,736.69	82	96	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	5	5	6	0.04%	4.47%	EVIDASDKEGMSPAKR	K	T	95.00%	3.34	0.273	0	1	0	0	2	1,812.82	82	97	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	5	5	6	0.04%	4.47%	SINEENGEVSEDQSQNK	K	H	95.00%	2.88	0.314	0	1	0	0	2	1,986.79	23	39	TRUE	
SNU216LR_PC2_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	4	4	0.03%	6.44%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	4.34	0.513	0	0	1	0	2	2,585.34	199	222	TRUE	
SNU216LR_PC2_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	4	4	0.03%	6.44%	LHQLSGSDQLESTAHSR	K	I	95.00%	3.85	0.381	0	0	1	0	2	1,945.88	179	195	TRUE	
SNU216LR_PC2_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	4	4	0.03%	6.44%	SASQSSLDKLDQELK	R	E	95.00%	2.97	0.35	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216LR_PC2_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	4	4	0.03%	6.44%	SASQSSLDKLDQELKEQQK	R	E	95.00%	2.56	0.278	0	0	1	0	2	2,242.06	714	732	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	GEEGSDDDETENGPKPK	K	K	95.00%	3.36	0.428	0	1	1	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.48	0.371	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	GSGSEQEGEDEEGGER	K	K	95.00%	2.5	0.488	0	1	0	0	2	1,811.56	962	977	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	HPKGEEGSDDDETENGPKPK	R	K	95.00%	3.33	0.278	0	0	1	0	2	2,245.93	985	1004	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.89	0.541	0	1	1	0	2	2,436.01	935	955	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	KGSGSEQEGEDEEGGER	R	K	95.00%	4.26	0.535	0	2	2	0	2	1,859.69	961	977	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	KGSGSEQEGEDEEGGERK	R	K	95.00%	4.96	0.509	0	1	1	0	2	2,067.75	961	978	TRUE	
SNU216LR_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	13	16	0.10%	5.02%	RKGSGSEQEGEDEEGGER	R	K	95.00%	2.49	0.341	0	2	1	0	2	2,095.76	960	977	TRUE	
SNU216LR_PC2_02	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	3	4	4	0.03%	3.03%	KYIEIDSDEEPRGELLSLR	R	D	95.00%	2.93	0.182	0	0	1	0	2	2,342.13	519	537	TRUE	
SNU216LR_PC2_02	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	3	4	4	0.03%	3.03%	YIEIDSDEEPR	K	G	95.00%	2.15	0.29	0	1	0	0	2	1,445.58	520	530	TRUE	
SNU216LR_PC2_02	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	3	4	4	0.03%	3.03%	YIEIDSDEEPRGELLSLR	K	D	95.00%	2.8	0.262	0	1	1	0	2	2,214.03	520	537	TRUE	
SNU216LR_PC2_02	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	2	2	0.01%	4.65%	NVDSLSAPHNHPPEDPFGSVPFISHSGSPEK	K	K	95.00%	5.16	0.269	0	0	0	1	2	3,362.51	662	692	TRUE	
SNU216LR_PC2_02	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	2	2	0.01%	4.65%	SESNEDLFGLVPFDEITGSQQQK	K	V	95.00%	4.08	0.43	0	1	0	0	2	2,648.18	947	969	TRUE	
SNU216LR_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	98.70%	1	1	1	0.01%	1.47%	SSEPVQADESQSPR	R	D	95.00%	2.6	0.362	0	1	0	0	2	1,596.65	878	891	TRUE	
SNU216LR_PC2_02	KIBRA protein	IPI00217340	125,303.90	99.00%	2	2	2	0.01%	2.52%	EKMAFFTR	R	P	80.50%	1.42	0.119	1	0	0	0	2	1,109.49	1093	1100	TRUE	
SNU216LR_PC2_02	KIBRA protein	IPI00217340	125,303.90	99.00%	2	2	2	0.01%	2.52%	VDKETNTETPAPSPTVVRPK	K	D	95.00%	2.97	0.227	0	0	1	0	2	2,246.11	887	906	TRUE	
SNU216LR_PC2_02	Isoform 1 of General transcription factor 3C polyp	IPI00015806,IPI00411594	101,276.20	99.30%	1	2	2	0.01%	2.71%	GKLSAEENPDDSEVPSSSGINSTK	K	S	95.00%	5.66	0.608	0	1	1	0	2	2,528.10	40	63	TRUE	
SNU216LR_PC2_02	CDNA FLJ13144 fis, clone NT2RP3003278	IPI00335437	80,928.10	99.80%	2	2	2	0.01%	1.93%	DEKEALGQNEESPK	R	Q	95.00%	3.27	0.378	0	1	0	0	2	1,653.70	387	400	TRUE	
SNU216LR_PC2_02	CDNA FLJ13144 fis, clone NT2RP3003278	IPI00335437	80,928.10	99.80%	2	2	2	0.01%	1.93%	EALGQNEESPK	K	Q	95.00%	2.72	0.325	0	1	0	0	2	1,281.54	390	400	TRUE	
SNU216LR_PC2_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	7.80%	KLDDDSDSPSFFEEKPEEPVVLALDPK	R	G	95.00%	3.95	0.287	0	0	1	0	2	3,126.44	731	757	TRUE	
SNU216LR_PC2_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	7.80%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	3.58	0.394	0	1	1	0	2	2,376.91	948	966	TRUE	
SNU216LR_PC2_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	7.80%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	92.60%	6.56	0.0064	0	0	1	0	2	4,426.91	1057	1096	TRUE	
SNU216LR_PC2_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	6	0.04%	5.22%	AAKPGPAEAPSPTASPSGDASPPATAPYDPF	R	V	95.00%	4.08	0.125	0	0	2	0	2	3,171.31	1094	1124	TRUE	
SNU216LR_PC2_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	6	0.04%	5.22%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.63	0.31	0	0	2	0	2	2,672.22	157	179	TRUE	
SNU216LR_PC2_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	6	0.04%	5.22%	TGSGSPFAGNSPAR	K	E	95.00%	2.71	0.268	0	2	0	0	2	1,385.58	1265	1278	TRUE	
SNU216LR_PC2_02	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	99.90%	2	2	2	0.01%	4.05%	SAMMQQYELDLR	R	E	95.00%	2.81	0.236	0	0	1	0	2	1,644.62	396	407	TRUE	
SNU216LR_PC2_02	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	99.90%	2	2	2	0.01%	4.05%	SSPPLRTPDVLESSGPAVR	R	S	95.00%	3.88	0.403	0	0	1	0	2	2,045.01	675	693	TRUE	
SNU216LR_PC2_02	IMP dehydrogenase/GMP reductase family protein	IPI00217626	89,031.60	100.00%	2	2	4	0.03%	3.35%	FPPEDFRHSPEDFR	R	R	95.00%	2.95	0.285	0	0	3	0	2	1,855.78	567	580	TRUE	
SNU216LR_PC2_02	IMP dehydrogenase/GMP reductase family protein	IPI00217626	89,031.60	100.00%	2	2	4	0.03%	3.35%	SRSPLGFYVHLK	R	N	95.00%	3.38	0.297	0	0	1	0	2	1,483.75	278	289	TRUE	
SNU216LR_PC2_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.20%	2	2	2	0.01%	2.77%	KVTSPLQSPTK	R	A	83.30%	2.05	0.168	0	1	0	0	2	1,345.62	900	910	TRUE	
SNU216LR_PC2_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.20%	2	2	2	0.01%	2.77%	SMPSMGYMTHTVSAPSLHGK	R	S	95.00%	3.73	0.349	0	0	1	0	2	2,198.94	631	650	TRUE	
SNU216LR_PC2_02	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	DVHAASSPGMGGAAASWAGWAVTGVSSI	K	L	95.00%	4.68	0.533	0	0	1	0	2	2,996.36	553	583	TRUE	
SNU216LR_PC2_02	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	PSTQPRPDSWGEDNWEGLETDSR	R	Q	95.00%	4.46	0.425	0	1	1	0	2	2,739.13	746	768	TRUE	
SNU216LR_PC2_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.50%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	2.92	0.313	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216LR_PC2_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.50%	TTQSMQDFPVVDSEEEAEEEFQK	R	E	95.00%	4.82	0.333	0	0	1	0	2	2,783.13	198	220	TRUE	
SNU216LR_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	14.90%	ETSVSKEDTDHEEK	K	A	95.00%	2.54	0.262	0	0	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	14.90%	ETSVSKEDTDHEEKASNEDVTK	K	A	94.40%	2.73	0.216	0	0	1	0	2	2,638.04	114	135	TRUE	
SNU216LR_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	14.90%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	3.76	0.29	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	14.90%	QVETEEAGVVTTATASVNLKVSPK	K	R	95.00%	4.99	0.398	0	0	1	0	2	2,538.27	156	179	TRUE	
SNU216LR_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	14.90%	TGVTSTSDSEEEGDDQEGEK	K	K	95.00%	4.18	0.0498	0	1	0	0	2	2,259.77	267	286	TRUE	
SNU216LR_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	4.57	0.379	0	1	1	0	2	2,428.13	618	639	TRUE	
SNU216LR_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	GADNDGSGSESGYTTPK	K	K	95.00%	3.94	0.393	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	NDSWGSFDLR	R	A	95.00%	2.3	0.425	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	RTSPQVLGSILK	K	S	95.00%	3.34	0.269	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	5	5	6	0.04%	4.51%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	3.91	0.328	0	0	1	0	2	2,539.15	1112	1134	TRUE	
SNU216LR_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	5	5	6	0.04%	4.51%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	6.74	0.627	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216LR_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	5	5	6	0.04%	4.51%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	3.71	0.394	0	0	2	0	2	2,457.22	1090	1111	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Isoform 1 of Tumor suppressor p53-binding prot	IPI00029778,IPI00742743	214,114.80	100.00%	5	5	6	0.04%	4.51%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.55	0.546	0	0	1	0	2	3,282.51	1464	1495	TRUE	
SNU216LR_PC2_02	Isoform 1 of Tumor suppressor p53-binding prot	IPI00029778,IPI00742743	214,114.80	100.00%	5	5	6	0.04%	4.51%	SEDMPFSPK	R	A	95.00%	2.26	0.296	0	1	0	0	2	1,117.43	264	272	TRUE	
SNU216LR_PC2_02	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	6.26%	SEANDAVNSSTKEEK	K	G	95.00%	3.41	0.376	0	1	0	0	2	1,688.70	117	131	TRUE	
SNU216LR_PC2_02	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	6.26%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	4	0.464	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216LR_PC2_02	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	6.26%	YGSPPQR	R	D	95.00%	1.7	0.364	0	1	0	0	2	884.3663	263	269	TRUE	
SNU216LR_PC2_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	4	4	0.03%	7.98%	DEPAESPSETPGPR	R	P	95.00%	2.59	0.309	0	1	0	0	2	1,548.62	592	605	TRUE	
SNU216LR_PC2_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	4	4	0.03%	7.98%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.33	0.575	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216LR_PC2_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	4	4	0.03%	7.98%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.63	0.404	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216LR_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	7	0.04%	4.25%	DSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.06	0.388	0	0	1	0	2	2,442.04	187	207	TRUE	
SNU216LR_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	7	0.04%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.8	0.427	0	1	1	3	2	2,598.14	186	207	TRUE	
SNU216LR_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	7	0.04%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	3.06	0.339	0	1	0	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor B2	IPI00005648	107,474.40	100.00%	1	1	1	0.01%	4.51%	MEEEGTEDNGLEDDSR	K	D	95.00%	2.26	0.313	0	1	0	0	2	1,905.67	95	110	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor B2	IPI00005648	107,474.40	100.00%	1	1	1	0.01%	4.51%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	95.00%	4.36	0.275	0	0	1	0	2	2,928.28	226	251	FALSE	IPI00646058
SNU216LR_PC2_02	Scaffold attachment factor B2	IPI00005648	107,474.40	100.00%	1	1	1	0.01%	4.51%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.61	0.428	0	0	1	0	2	3,056.37	226	252	FALSE	IPI00646058
SNU216LR_PC2_02	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	HRSIHEVDISNLEAALR	R	A	95.00%	3.32	0.369	0	0	0	1	2	2,040.00	885	901	TRUE	
SNU216LR_PC2_02	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	TKSPTDDEVTPSAVVR	R	R	95.00%	3.84	0.518	0	1	1	0	2	1,781.83	795	810	TRUE	
SNU216LR_PC2_02	Isoform 1 of Death domain-associated protein 6	IPI00170867,IPI00220885,IP	81,413.20	99.60%	2	2	2	0.01%	7.30%	DGDKSPMSSLQISNEK	K	N	95.00%	2.96	0.484	0	1	0	0	2	1,815.78	491	506	TRUE	
SNU216LR_PC2_02	Isoform 1 of Death domain-associated protein 6	IPI00170867,IPI00220885,IP	81,413.20	99.60%	2	2	2	0.01%	7.30%	LNLAPAATTSNEPSGNNPPTHLSLDPTNAEI	K	T	91.30%	5.38	0.0412	0	0	1	0	2	3,964.83	143	180	TRUE	
SNU216LR_PC2_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.64	0.35	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC2_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	3.09	0.254	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	99.90%	2	2	2	0.01%	2.01%	AHLSENELEALEK	R	N	95.00%	2.58	0.307	0	1	0	0	2	1,562.71	859	871	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	99.90%	2	2	2	0.01%	2.01%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	5	0.276	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	95.00%	3.17	0.378	0	1	0	0	2	2,486.00	175	197	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	2.86	0.394	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	EEDEPEERSGDETPGSEVPGDKAAEEQGDD	R	S	95.00%	5.57	0.589	0	0	1	0	2	3,870.51	153	187	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	5.61	0.484	0	1	2	1	2	2,624.06	152	174	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	SGDETPGSEVPGDK	R	A	95.00%	3.27	0.601	1	3	0	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	5.33	0.684	0	1	1	0	2	2,857.12	161	187	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	SKSPLPPEEEAK	R	D	95.00%	2.06	0.269	0	2	0	0	2	1,391.65	226	237	TRUE	
SNU216LR_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	14	29	0.19%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	7.14	0.568	0	0	2	11	2	4,198.92	226	261	TRUE	
SNU216LR_PC2_02	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	3.62	0.32	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	HYEDGYPGGSDNYGSLSR	R	V	95.00%	3.05	0.436	0	1	0	0	2	2,053.79	162	179	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	LRSYEDMIGEEVPSDQYYWAPLAQHER	R	G	95.00%	6.38	0.61	0	0	1	1	2	3,362.48	264	290	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	SGDLGDMEPLKGTTPLMQK	R	-	86.00%	2.2	0.177	0	1	0	0	2	2,097.96	860	878	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	SLDNNYSTPNER	K	G	95.00%	2.74	0.257	0	1	0	0	2	1,489.60	839	850	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	SMGYDDLDYGMMSDYGTAR	R	R	95.00%	4.14	0.602	0	1	0	0	2	2,227.80	234	252	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	SQSSHSYDDSTLPLIDR	R	N	95.00%	3.48	0.467	0	2	0	0	2	2,000.86	799	815	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	TLDRSGDLGDMEPLK	R	G	95.00%	2.96	0.274	0	1	1	0	2	1,726.77	856	870	TRUE	
SNU216LR_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	10	11	0.07%	13.10%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.49	0.498	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	3	4	4	0.03%	1.36%	SASPSVPGPTKPKPK	R	T	95.00%	3.9	0.478	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	3	4	4	0.03%	1.36%	SDTPEVHPPLPISQSPENESNDRR	R	S	89.00%	2.99	0.147	0	0	1	0	2	2,781.25	504	527	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	3	4	4	0.03%	1.36%	TIAHSPTSFTESSSK	R	E	95.00%	3.07	0.202	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	99.80%	1	1	1	0.01%	1.85%	ASQSRPNSSALETLGGEK	K	L	95.00%	4.96	0.0447	0	1	0	0	2	1,911.88	447	464	TRUE	
SNU216LR_PC2_02	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	99.80%	1	1	1	0.01%	1.74%	ALVVPEPEPDSDSNQER	K	K	95.00%	4.05	0.615	0	1	0	0	2	1,961.85	126	142	TRUE	
SNU216LR_PC2_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	KAEENASQEEEEAAEDEGGEEDLASELR	K	V	95.00%	4.9	0.524	0	0	1	0	2	3,144.27	674	701	TRUE	
SNU216LR_PC2_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	KVSPIKINLK	R	N	95.00%	3.44	0.497	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216LR_PC2_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	3.58	0.481	0	1	0	0	2	1,941.82	934	951	TRUE	
SNU216LR_PC2_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.68	0.415	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC2_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	3	0.328	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	3.53	0.367	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	3.83	0.138	0	0	1	0	2	2,439.07	279	299	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	4	0.384	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	4.17	0.384	0	0	2	0	2	2,623.23	346	369	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	MEVDRSPGLPMSDLK	R	T	95.00%	3.48	0.235	0	1	1	0	2	1,754.79	614	628	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	SKSLKEGLTVQER	R	L	92.20%	2.22	0.235	0	1	0	0	2	1,554.79	1014	1026	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	SKSNPDFLKK	K	D	95.00%	2.66	0.193	0	0	1	0	2	1,243.61	991	1000	TRUE	
SNU216LR_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	8	9	10	0.06%	10.20%	SPGLPMSDLK	R	T	92.50%	2.04	0.198	0	0	1	0	2	1,124.51	619	628	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.80%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFK	R	S	95.00%	3.52	0.426	0	1	1	0	2	1,641.65	275	288	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.80%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFKSPSK	R	E	95.00%	3.53	0.418	0	0	1	0	2	2,040.87	275	292	TRUE	
SNU216LR_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	7.78%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	4.01	0.317	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216LR_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	7.78%	HDEESHSLSPPGENTVMADSFQIK	R	V	95.00%	4.53	0.43	0	0	1	0	2	2,735.17	518	541	TRUE	
SNU216LR_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	7.78%	SNSLPIKK	R	T	93.40%	1.84	0.222	0	1	0	0	2	966.5021	417	424	TRUE	
SNU216LR_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	7.78%	VPSPHETKPDEDAEAFENHAEK	K	L	95.00%	4.81	0.301	0	0	0	1	2	2,557.09	583	604	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	AQGSDEDKLQNSDDDEK	R	M	95.00%	3.67	0.339	0	2	0	0	2	1,973.76	168	184	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	ELFGDDSEDEGASHHSGSDNHSER	K	S	95.00%	3.21	0.19	0	0	1	0	2	2,694.00	60	83	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	IYSSDSDEGSEEDKAQR	R	L	95.00%	2.95	0.232	0	1	0	0	2	1,995.78	605	621	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	KLTSDEEGEPSGK	K	R	94.90%	2.59	0.17	0	1	0	0	2	1,456.62	627	639	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	KLTSDEEGEPSGKR	K	K	95.00%	2.9	0.353	0	2	1	0	2	1,692.69	627	640	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	LTSDEEGEPSGK	K	R	95.00%	2.46	0.344	0	1	0	0	2	1,328.53	628	639	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	LTSDEEGEPSGKR	K	K	95.00%	2.37	0.364	0	1	0	0	2	1,484.63	628	640	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	MQNTDDEERPQLSDDER	K	Q	90.80%	2.18	0.199	0	1	0	0	2	2,237.81	185	201	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	NAIASDSEADSDTEVPK	K	D	95.00%	2.68	0.193	0	1	0	0	2	1,908.71	290	306	TRUE	
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	QNSDDEEQPQLSDEEK	K	M	95.00%	2.51	0.329	0	1	0	0	2	2,050.72	227	242	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	14	0.09%	20.90%	SDQSDDEKIQNSDDEER	K	A	95.00%	2.81	0.45	0	1	0	0	2	2,169.75	151	167	TRUE	
SNU216LR_PC2_02	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	100.00%	2	2	2	0.01%	2.29%	NASASFQELEDK	R	K	95.00%	1.87	0.304	0	1	0	0	2	1,498.55	45	56	TRUE	
SNU216LR_PC2_02	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	100.00%	2	2	2	0.01%	2.29%	NASASFQELEDKK	R	E	95.00%	2.8	0.324	0	1	0	0	2	1,546.68	45	57	TRUE	
SNU216LR_PC2_02	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	4.43	0.0055	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216LR_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	3	3	4	0.03%	3.83%	ESKGSPVFLPR	K	K	95.00%	2.09	0.239	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216LR_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	3	3	4	0.03%	3.83%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	95.00%	2.98	0.297	0	0	1	0	2	2,545.18	1069	1093	TRUE	
SNU216LR_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	3	3	4	0.03%	3.83%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	2.58	0.29	0	0	2	0	2	2,300.18	381	401	TRUE	
SNU216LR_PC2_02	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	100.00%	3	3	3	0.02%	3.79%	DSPAFPDSPWR	R	E	95.00%	2.36	0.36	0	1	0	0	2	1,354.55	268	278	TRUE	
SNU216LR_PC2_02	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	100.00%	3	3	3	0.02%	3.79%	HSPIAPSSPSPQVLAQK	R	Y	95.00%	3.28	0.331	0	1	0	0	2	1,823.91	305	321	TRUE	
SNU216LR_PC2_02	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	100.00%	3	3	3	0.02%	3.79%	TDSQSVRHSPIAPSSPSPQVLAQK	R	Y	95.00%	5.1	0.121	0	0	1	0	2	2,597.27	298	321	TRUE	
SNU216LR_PC2_02	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	4	4	0.03%	3.74%	DLGHPVEEEDELESGDQEDEDDSEDPGK	K	D	95.00%	4.93	0.444	0	0	1	0	2	3,323.24	929	957	TRUE	
SNU216LR_PC2_02	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	4	4	0.03%	3.74%	LKDLGHPVEEEDELESGDQEDEDDSEDPG	K	D	95.00%	6.92	0.515	0	0	1	0	2	3,564.42	927	957	TRUE	
SNU216LR_PC2_02	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	4	4	0.03%	3.74%	LKDLGHPVEEEDELESGDQEDEDDSEDPG	K	-	95.00%	7	0.626	0	0	1	1	2	4,157.70	927	962	TRUE	
SNU216LR_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.20%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	5.07	0.519	0	1	1	0	2	2,253.98	444	462	TRUE	
SNU216LR_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.20%	SNPKSPQKPIVR	R	V	95.00%	2.5	0.318	0	0	1	0	2	1,430.75	147	158	TRUE	
SNU216LR_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.20%	SRWSGSHQFEQLSGSILWMAPEVIR	K	M	95.00%	6.56	0.41	0	0	1	0	2	2,981.41	602	626	TRUE	
SNU216LR_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.20%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	4.71	0.441	0	1	0	0	2	2,484.21	363	384	TRUE	
SNU216LR_PC2_02	eukaryotic translation initiation factor 2C, 2	IPI00220349,IPI00745433	97,208.00	99.60%	1	1	1	0.01%	2.68%	YHLVDKEHDSAEGSHTSGQSNGR	R	D	92.20%	2.81	0.19	0	0	1	0	2	2,591.09	815	837	TRUE	
SNU216LR_PC2_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	4.17	0.461	0	0	1	0	2	1,656.70	340	354	TRUE	
SNU216LR_PC2_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.1	0.228	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216LR_PC2_02	U5 snRNP-associated 102 kDa protein	IPI00305068	106,927.70	99.90%	1	1	1	0.01%	2.34%	GYLTDLNSMIPTHGGDINDIKK	K	A	93.80%	2.97	0.196	0	0	1	0	2	2,482.17	272	293	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	7	8	13	0.08%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	4.77	0.428	0	0	4	0	2	3,275.31	348	375	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	7	8	13	0.08%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHKR	K	T	95.00%	5.47	0.513	0	0	1	1	2	3,431.41	348	376	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	7	8	13	0.08%	12.40%	MLAESDESGDEESVSQTDK	K	T	95.00%	3.58	0.361	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	7	8	13	0.08%	12.40%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	5.22	0.455	0	0	3	0	2	3,188.29	186	212	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	7	8	13	0.08%	12.40%	SLSELESLKLPAESNEK	R	I	95.00%	3.11	0.412	0	1	0	0	2	1,953.94	238	254	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	7	8	13	0.08%	12.40%	TGSNISGASSDISLDEQYK	R	H	95.00%	4.04	0.0571	0	1	0	0	2	2,051.88	377	395	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	7	8	13	0.08%	12.40%	TGSNISGASSDISLDEQYKHQLEETKK	R	E	93.20%	2.97	0.184	0	0	0	1	2	3,045.41	377	403	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	99.50%	2	2	2	0.01%	3.22%	IHSPIPDMSK	K	F	95.00%	1.94	0.24	0	1	0	0	2	1,204.54	663	672	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	99.50%	2	2	2	0.01%	3.22%	LFPADTSPSTATK	K	I	89.10%	2.11	0.211	0	1	0	0	2	1,415.65	650	662	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.30%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	86.90%	2.79	0.161	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.8	0.34	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	ARHDSPDPSPPR	R	R	95.00%	2.06	0.262	0	1	0	0	2	1,491.58	193	204	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	ARHDTPDPSPLR	R	G	95.00%	2.9	0.371	0	0	1	0	2	1,441.66	155	166	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.9	0.454	0	1	1	0	2	1,861.85	269	284	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	HDSPDPSPPR	R	R	95.00%	2	0.396	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	HDTPDPSPLR	R	G	95.00%	2.35	0.324	0	2	0	0	2	1,214.52	157	166	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	NSKYEYDPDISPPR	K	K	95.00%	2.69	0.237	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216LR_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	8	9	10	0.06%	9.05%	YEYDPDISPPR	K	K	95.00%	2.3	0.332	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216LR_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	5.05	0.51	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216LR_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.55	0.4	0	0	1	0	2	2,172.03	344	362	TRUE	
SNU216LR_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	4.56	0.137	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216LR_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	VGNESPVQELK	K	Q	95.00%	2.6	0.305	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216LR_PC2_02	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.80%	2	3	3	0.02%	3.62%	EGVNQPAAVVMEDSSPHEALR	K	C	95.00%	3.59	0.262	0	0	1	0	2	2,316.03	625	645	TRUE	
SNU216LR_PC2_02	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.80%	2	3	3	0.02%	3.62%	EKPDSDDDLDIASLVTAK	R	L	95.00%	3.84	0.537	0	1	1	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	5	7	7	0.04%	12.70%	GSDALSETSSVSHIEDLEK	R	V	95.00%	3.89	0.342	0	1	1	0	2	2,083.91	713	731	TRUE	
SNU216LR_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	5	7	7	0.04%	12.70%	LISGDIPGPLQGSGQDMVSILQLVQNLMHC	K	I	95.00%	4.17	0.336	0	0	1	0	2	4,380.05	42	81	TRUE	
SNU216LR_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	5	7	7	0.04%	12.70%	LSSGPEQITLEASSTEGHPGAPSPQHTDQTE	R	G	95.00%	5.96	0.376	0	0	1	1	2	3,742.69	735	769	TRUE	
SNU216LR_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	5	7	7	0.04%	12.70%	SLRGSDALSETSSVSHIEDLEK	R	V	95.00%	5.77	0.44	0	0	1	0	2	2,440.12	710	731	TRUE	
SNU216LR_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	5	7	7	0.04%	12.70%	VERLSSGPEQITLEASSTEGHPGAPSPQHTD	K	G	95.00%	5.86	0.434	0	0	1	1	2	4,126.90	732	769	TRUE	
SNU216LR_PC2_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	5	6	6	0.04%	9.12%	KINSSPNVNTTASGVEDLNIQVTIPDDDNE	R	L	94.90%	5.97	0.0335	0	0	1	0	2	3,548.68	786	817	TRUE	
SNU216LR_PC2_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	5	6	6	0.04%	9.12%	RPSTYGIPR	R	L	95.00%	1.76	0.296	0	1	0	0	2	1,126.54	369	377	TRUE	
SNU216LR_PC2_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	5	6	6	0.04%	9.12%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.89	0.424	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216LR_PC2_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	5	6	6	0.04%	9.12%	SPSWYGIPR	R	L	95.00%	1.86	0.351	0	1	0	0	2	1,142.50	474	482	TRUE	
SNU216LR_PC2_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	5	6	6	0.04%	9.12%	TNTPVKEDWNVR	R	I	95.00%	2.67	0.406	0	1	1	0	2	1,538.70	515	526	TRUE	
SNU216LR_PC2_02	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.25	0.654	0	0	1	0	2	3,332.21	541	570	TRUE	
SNU216LR_PC2_02	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	4.53	0.294	0	0	1	1	2	4,263.69	541	580	TRUE	
SNU216LR_PC2_02	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	5.35%	FAEDEEKSENSSEDGDITDK	R	S	95.00%	3.02	0.537	0	1	0	0	2	2,484.83	310	329	TRUE	
SNU216LR_PC2_02	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	5.35%	KAQEAEAQSEDDDEDTEEEQGEEK	K	E	95.00%	3.37	0.455	0	0	1	0	2	2,899.02	272	295	TRUE	
SNU216LR_PC2_02	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	5.35%	KAQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	3.75	0.512	0	0	1	0	2	3,156.16	272	297	TRUE	
SNU216LR_PC2_02	Gephyrin	IPI00016006,IPI00184477	83,448.60	99.80%	2	2	2	0.01%	4.48%	VKEVHDELEDLPSPPPPLSPPPTTSPHK	K	Q	95.00%	5.07	0.244	0	0	0	1	2	3,120.53	176	203	TRUE	
SNU216LR_PC2_02	Gephyrin	IPI00016006,IPI00184477	83,448.60	99.80%	2	2	2	0.01%	4.48%	VKEVHDELEDLPSPPPPLSPPPTTSPHKQTEI	K	G	95.00%	5.41	0.108	0	0	0	1	2	3,881.73	176	208	TRUE	
SNU216LR_PC2_02	ATP-dependent RNA helicase DDX1	IPI00293655	82,433.20	100.00%	1	1	1	0.01%	2.43%	DNTRPGANSPEMWSEAIK	K	I	90.00%	2.62	0.134	0	1	0	0	2	2,082.90	473	490	TRUE	
SNU216LR_PC2_02	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	99.30%	1	1	1	0.01%	1.22%	TSPTPPESATTVK	R	S	86.00%	1.89	0.218	0	1	0	0	2	1,395.64	728	740	TRUE	
SNU216LR_PC2_02	Transcription repressor	IPI00382733	82,672.30	100.00%	1	2	5	0.03%	2.26%	RGSGDTSISIDTEASIR	R	E	95.00%	3.08	0.32	0	3	2	0	2	1,844.84	86	102	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	QRSPIALPVKQEPPQIDAVK	R	R	95.00%	4.54	0.385	0	0	1	0	2	2,294.23	209	228	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	SKFDSDEEEEDTENVEAASSGK	R	V	95.00%	6.63	0.608	0	1	1	0	2	2,482.96	286	307	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	SPSPVPQEEHSDPEMTEEEKEYQMMLLTK	R	M	95.00%	4.3	0.376	0	0	1	0	2	3,659.43	311	339	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	3.93	0.443	0	0	1	0	2	2,989.46	206	231	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	4.65	0.496	0	0	1	0	2	2,522.20	2140	2161	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	SPGSISYLPSFFTK	R	L	95.00%	3.17	0.373	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216LR_PC2_02	Origin recognition complex subunit 1	IPI00013215	97,352.10	99.80%	2	2	2	0.01%	3.83%	SAESPSWTPAEHVAK	K	R	95.00%	3.12	0.469	0	1	0	0	2	1,676.73	196	210	TRUE	
SNU216LR_PC2_02	Origin recognition complex subunit 1	IPI00013215	97,352.10	99.80%	2	2	2	0.01%	3.83%	SQPDKLQTLSPALKAPEK	R	T	95.00%	3.36	0.182	0	0	1	0	2	2,031.05	278	295	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	1	2	2	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	4.05	0.435	0	1	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC2_02	Meningioma-expressed antigen 5s splice variant	IPI00465449,IPI00477231	102,917.50	99.80%	1	2	2	0.01%	3.40%	LENEGSDEDIETDVLYSPQMALK	K	L	95.00%	6.14	0.533	0	1	1	0	2	2,676.16	359	381	TRUE	
SNU216LR_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	8	0.05%	15.10%	EEAPASPLRPLYPQISPLK	K	I	95.00%	2.89	0.327	0	1	0	0	2	2,266.09	45	63	TRUE	
SNU216LR_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	8	0.05%	15.10%	EGSPIPHDPEFGSK	R	L	95.00%	2.92	0.341	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	8	0.05%	15.10%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	4.15	0.386	0	0	2	0	2	3,303.72	36	63	TRUE	
SNU216LR_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	8	0.05%	15.10%	SAPASPTHPGLMSPR	R	S	95.00%	3.02	0.47	0	1	1	0	2	1,585.72	253	267	TRUE	
SNU216LR_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	5	7	8	0.05%	15.10%	YSQSAPGSPVSAQPVIMAVPPRPSSLVAK	R	P	80.20%	3.43	0.106	0	0	1	0	2	3,001.52	302	330	TRUE	
SNU216LR_PC2_02	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	98.80%	1	1	1	0.01%	1.52%	AHFNAMFQPSSPTR	R	R	95.00%	2.8	0.328	0	0	1	0	2	1,670.71	894	907	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc phosphodiesterase ELAC protei	IPI00396627	92,219.50	99.80%	2	2	2	0.01%	4.24%	GKHQPWQSPERPLSR	R	L	95.00%	2.7	0.296	0	0	0	1	2	1,882.91	192	206	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc phosphodiesterase ELAC protei	IPI00396627	92,219.50	99.80%	2	2	2	0.01%	4.24%	SSDSESNENEPHLPHGVSQR	R	R	95.00%	3.87	0.383	0	0	1	0	2	2,285.94	212	231	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	99.80%	1	1	1	0.01%	0.94%	NSKSPEEHLEEMMK	K	M	95.00%	3.21	0.191	0	0	1	0	2	1,768.73	358	371	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.20%	2	3	3	0.02%	1.52%	SYSSPDITQAIQEEEK	R	R	83.00%	3.3	0.0332	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.20%	2	3	3	0.02%	1.52%	SYSSPDITQAIQEEEKR	R	K	95.00%	4.2	0.302	0	1	1	0	2	2,060.92	716	732	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	DGVLTLANNVTPAK	K	D	95.00%	3.06	0.311	0	1	1	0	2	1,492.74	589	602	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.89	0.177	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	DMESPTKLDVTLAK	K	D	95.00%	3.83	0.39	0	3	1	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	DMSPLSETEMALGK	K	D	95.00%	3.29	0.5	0	6	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.33	0.39	0	0	4	0	2	3,106.50	533	560	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	DVTPPPETEVVLIK	K	N	95.00%	2.51	0.315	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	ETERASPIKMDLAPSK	K	D	95.00%	3.52	0.406	0	1	0	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	6.7	0.0428	0	0	1	0	2	3,569.64	628	661	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	6.45	0.104	0	0	1	1	2	3,697.73	628	662	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	RASPSKPASAPASR	K	S	95.00%	2.94	0.429	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	SPSTLLPK	R	K	95.00%	1.79	0.278	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216LR_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	15	25	0.16%	13.80%	TEVALAKDMESPTKLDVTLAK	K	D	95.00%	2.86	0.184	0	0	1	0	2	2,356.17	298	318	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.45	0.278	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	DNSPPPAFKPEPPK	R	A	95.00%	2.75	0.429	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	DSQQTLINIPSLNDSDSEIEDISEIESNR	R	S	95.00%	3.4	0.29	0	0	1	0	2	3,341.49	384	412	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	ERPSSREDTPSR	K	L	95.00%	2.74	0.456	0	1	0	0	2	1,496.65	437	448	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	GSYGSDAEEEEYR	R	Q	95.00%	2.47	0.389	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.24	0.31	0	1	1	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.61	0.5	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	RHQYSDYDYHSSSEK	R	L	95.00%	3.47	0.246	0	1	1	0	2	1,981.77	420	434	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	SFSPEER	R	R	95.00%	2.07	0.299	0	1	0	0	2	931.3557	413	419	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	SIDQDYER	R	A	95.00%	2.02	0.205	1	0	0	0	2	1,105.42	244	251	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	4.63	0.476	0	0	1	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	SRSWEDSPER	R	G	95.00%	2.47	0.204	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	16	17	0.11%	14.40%	VQVAALQASPPLDQDDR	K	A	95.00%	3.13	0.358	0	1	0	0	2	1,902.90	122	138	TRUE	
SNU216LR_PC2_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	1.66%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	2.68	0.422	0	0	1	0	2	2,327.88	548	567	TRUE	
SNU216LR_PC2_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	1.66%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	4.15	0.363	0	0	1	0	2	2,563.19	145	166	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	AALKEWNGVVSESDSPVK	K	R	95.00%	3.57	0.272	0	1	0	0	2	1,995.94	37	54	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	AETPTESVSEPEVATK	K	Q	95.00%	3.35	0.436	0	2	0	0	2	1,754.77	193	208	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	EGEDGDQPTTPPKPLK	K	T	95.00%	2.62	0.252	0	1	1	0	2	1,788.81	174	189	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	5.06	0.376	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	EWNGVVSESDSPVK	K	R	95.00%	3.21	0.4	0	1	0	0	2	1,612.69	41	54	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	KQSQIQNQQGEDSGSDPEDTY	R	-	95.00%	3.76	0.0921	0	1	0	0	2	2,513.93	899	919	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	QSQIQNQQGEDSGSDPEDTY	K	-	93.10%	2.79	0.129	0	1	0	0	2	2,385.84	900	919	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	RTIQEVLEEQSEDEDREAK	K	R	95.00%	4.15	0.264	0	0	1	0	2	2,384.06	131	149	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	TIQEVLEEQSEDEDR	R	E	95.00%	3.5	0.277	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	TIQEVLEEQSEDEDREAKR	R	K	84.40%	2.88	0.133	0	0	1	0	2	2,384.06	132	150	TRUE	
SNU216LR_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	11	12	15	0.10%	13.10%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.37	0.478	0	3	0	0	2	1,839.79	63	79	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	AAVLSDSEDEEKASAK	K	K	95.00%	2.49	0.397	0	1	1	0	2	1,809.72	394	409	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	EAEDSDSDDNIKR	K	G	95.00%	2.45	0.386	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	EKTIASDSEEEAGK	R	E	95.00%	2.5	0.236	0	1	0	0	2	1,653.63	433	446	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	GHHVTDSENDEPLNLNASDSESEELHR	K	Q	95.00%	3.72	0.167	0	0	1	0	2	3,271.23	63	89	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	GPASDSETEDASR	K	H	95.00%	2.39	0.502	0	2	0	0	2	1,481.48	310	322	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	HQASDSENEELPKPR	R	I	95.00%	4.04	0.388	0	2	1	0	2	1,816.79	232	246	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	HQASDSENEEPPKPR	R	M	95.00%	3.43	0.41	0	3	1	0	2	1,800.76	193	207	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	ISDSESEDPPR	R	H	95.00%	1.98	0.269	1	1	0	0	2	1,311.51	247	257	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	ISDSESEDPPRNQASDSENEELPKPR	R	V	82.60%	2.73	0.166	0	0	1	0	2	3,166.23	273	298	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	KAAVLSDSEDEEK	R	A	95.00%	2.42	0.271	0	1	0	0	2	1,580.61	393	405	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	MDSDEDEKEGEEEK	K	V	95.00%	3.45	0.285	0	2	1	0	2	1,749.60	375	388	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	MDSDEDEKEGEEEKVAK	K	R	95.00%	3.64	0.45	0	1	1	0	2	2,047.81	375	391	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	NQASDSENEELPKPR	R	V	95.00%	2.57	0.347	0	2	0	0	2	1,873.74	284	298	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	QKMDSDEDEKEGEEEK	K	V	95.00%	3.25	0.207	0	0	1	0	2	2,005.76	373	388	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	TIASDSEEEAGK	K	E	95.00%	1.91	0.363	0	1	0	0	2	1,396.49	435	446	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	TIASDSEEEAGKELSDK	K	K	95.00%	2.68	0.313	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	TIASDSEEEAGKELSDKK	K	N	95.00%	3.26	0.316	0	1	0	0	2	2,096.87	435	452	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	VSDSESEGPQK	R	G	95.00%	1.94	0.393	0	1	0	0	2	1,242.49	299	309	TRUE	
SNU216LR_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	19	25	31	0.20%	24.80%	VVSDADDSDSDAVSDK	R	S	95.00%	2.13	0.349	0	1	0	0	2	1,784.61	413	428	TRUE	
SNU216LR_PC2_02	Isoform 1 of Dynamin-2	IPI00033022,IPI00181352,IP	98,024.70	100.00%	1	1	1	0.01%	4.48%	EALNIIGDISTSTVSTPVPPPVDDTWLQSASS	K	R	94.80%	7.08	0	0	0	1	0	2	4,181.01	731	769	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	5.25	0.431	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	3.92	0.364	0	0	1	0	2	2,648.36	316	339	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	99.80%	2	2	2	0.01%	1.46%	ALQHTESPSETNKPHSK	K	S	95.00%	3.79	0.425	0	0	1	0	2	1,970.90	94	110	TRUE	
SNU216LR_PC2_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	99.80%	2	2	2	0.01%	1.46%	SESPPAELPSLR	R	R	95.00%	1.75	0.307	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216LR_PC2_02	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	2	0.01%	2.00%	AKPAMPQDSVPSPR	K	S	95.00%	2.79	0.344	0	1	0	0	2	1,560.72	470	483	TRUE	
SNU216LR_PC2_02	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	2	0.01%	2.00%	TASFSESR	R	A	95.00%	1.67	0.321	0	1	0	0	2	964.3771	453	460	TRUE	
SNU216LR_PC2_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.31	0.465	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC2_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDMI	R	S	95.00%	4.47	0.202	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	5.87	0.534	0	0	1	0	2	3,418.61	1323	1355	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	ALSPAELR	R	A	89.40%	1.56	0.271	0	1	0	0	2	936.4551	1484	1491	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	ELSPEGPGK	R	E	95.00%	2.17	0.29	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	GSTPYKGDDEGIFISR	K	V	95.00%	2.37	0.285	0	1	0	0	2	1,821.81	747	762	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.59	0.493	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	89.80%	6.57	0.0178	0	0	1	0	2	4,174.93	1536	1574	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	LRVQSPEPPAPER	R	A	95.00%	2.68	0.288	0	1	0	0	2	1,555.76	1471	1483	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	NSLESISSIDR	R	E	95.00%	2.13	0.356	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	QSPASPPPLGGGAPVR	R	T	95.00%	2.77	0.338	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	10	10	10	0.06%	10.90%	RVSLVGADDLRK	K	M	95.00%	2.6	0.221	0	0	1	0	2	1,408.73	1376	1387	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	DSGSDTASAIIPSTTPSVDSDDESVVK	K	D	95.00%	5.68	0.0314	0	1	1	0	2	2,760.20	183	209	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	HLFSSTENLAAGSWK	K	E	95.00%	2.55	0.319	0	1	0	0	2	1,727.78	353	367	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	HLFSSTENLAAGSWKEPAEGGGLSSDR	K	Q	95.00%	5.64	0.438	0	0	1	0	2	2,883.29	353	379	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	83.10%	5.54	0.0174	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	88.90%	6.01	0.0259	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	NNMTASMFDLSMK	R	D	95.00%	2.57	0.442	0	1	0	0	2	1,569.61	151	163	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	RSSLLSLMTGK	R	K	95.00%	2.65	0.318	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	8	9	9	0.06%	6.47%	RSSLLSLMTGKK	R	D	95.00%	2.53	0.24	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC2_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	6.64%	ISHSLYSGIEGLDESPSR	R	N	95.00%	4.37	0.463	0	1	0	0	2	2,026.91	714	731	TRUE	
SNU216LR_PC2_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	6.64%	RISHSLYSGIEGLDESPSR	R	N	95.00%	4.04	0.319	0	0	1	0	2	2,183.01	713	731	TRUE	
SNU216LR_PC2_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	6.64%	RSSDPALIGLSTSVSDSNFSSEEPSR	R	K	90.80%	6.3	0.0089	0	0	1	0	2	2,805.26	142	167	TRUE	
SNU216LR_PC2_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	6.64%	SPGSPPGPELPIETALDDR	K	E	95.00%	2.57	0.206	0	1	0	0	2	2,027.93	692	710	TRUE	
SNU216LR_PC2_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	6.64%	SSSLESLQTAVAEVTLNGDIPFHRPR	K	P	95.00%	3.4	0.189	0	0	1	0	2	2,904.43	884	909	TRUE	
SNU216LR_PC2_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	4	4	0.03%	3.86%	SKPIPIMPASPQK	K	G	95.00%	2.54	0.383	0	1	1	0	2	1,473.75	596	608	TRUE	
SNU216LR_PC2_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	4	4	0.03%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	5.22	0.621	0	0	1	1	2	3,011.63	596	623	TRUE	
SNU216LR_PC2_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	K	S	95.00%	5.53	0.574	0	0	1	1	2	2,873.37	59	85	TRUE	
SNU216LR_PC2_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	93.30%	3.99	0.0108	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	4	6	0.04%	3.16%	AEDSDSEPEPEDNVR	K	L	95.00%	2.84	0.287	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216LR_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	4	6	0.04%	3.16%	KAEDSDSEPEPEDNVR	K	L	95.00%	3.56	0.445	0	3	0	0	2	1,896.75	495	510	TRUE	
SNU216LR_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	4	6	0.04%	3.16%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.82	0.505	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216LR_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	4	6	0.04%	3.16%	RNSLGGDVLFVGK	R	H	95.00%	2.98	0.231	0	1	0	0	2	1,441.72	676	688	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.62%	KTVEDEDQDSEEEKDNDSYIK	K	E	95.00%	3.3	0.182	0	0	1	0	2	2,596.05	405	425	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.62%	NINMDNDLEVLTSSPTR	K	N	95.00%	4.88	0.44	0	1	0	0	2	1,998.88	538	554	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.62%	TVEDEDQDSEEEKDNDSYIK	K	E	95.00%	4.13	0.501	0	1	0	0	2	2,467.95	406	425	TRUE	
SNU216LR_PC2_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.8	0.315	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC2_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.67	0.543	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC2_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	2.94	0.353	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC2_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	83.20%	6.07	0	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC2_02	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.80%	2	3	3	0.02%	4.29%	RPLSSSHEASEGQAK	K	D	95.00%	2.59	0.249	0	1	1	0	2	1,663.74	173	187	TRUE	
SNU216LR_PC2_02	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.80%	2	3	3	0.02%	4.29%	TRSLPITIEMLK	R	V	95.00%	2.53	0.203	0	1	0	0	2	1,481.78	462	473	TRUE	
SNU216LR_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	DYDEEEQGYDSEKEK	K	K	95.00%	3.21	0.261	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	DYDEEEQGYDSEKEKK	R	E	95.00%	3.45	0.452	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216LR_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	LNHVAAGLVSPSLK	K	S	95.00%	2.63	0.415	0	1	1	0	2	1,485.78	138	151	TRUE	
SNU216LR_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	SKTPPKSYSTAR	K	R	95.00%	2.68	0.427	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216LR_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	VNGDDHHEEDMDMSD	K	-	95.00%	2.13	0.43	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216LR_PC2_02	insulin-like growth factor 2 mRNA binding proteir	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	1	3	0.02%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3.27	0.461	0	3	0	0	2	1,980.90	152	168	TRUE	
SNU216LR_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	87.60%	6.25	0.0026	0	0	1	0	2	3,614.83	125	161	TRUE	
SNU216LR_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.63	0.579	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	4.64	0.503	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.45	0.323	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216LR_PC2_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	4.34%	AAVVTSPPPTTAPHK	R	E	95.00%	2.78	0.339	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC2_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	4.34%	SPGSPVGEGTGSPPK	R	W	95.00%	2.94	0.412	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC2_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	4.34%	SRSPGSPVGEGTGSPPK	K	W	95.00%	2.8	0.276	0	1	0	0	2	1,756.73	353	369	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.04%	8.02%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	2.88	0.351	0	1	2	0	2	2,279.98	667	686	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.04%	8.02%	GLAGPPASPGK	K	A	95.00%	2.18	0.478	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.04%	8.02%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.48	0.543	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.04%	8.02%	KLQLERPVSPETQADLQR	R	N	95.00%	3.04	0.234	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.04%	8.02%	KPSVGVPPPASPSYPR	R	A	95.00%	3.6	0.428	0	0	1	0	2	1,715.85	969	984	TRUE	
SNU216LR_PC2_02	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	3	0.02%	2.90%	DMQPLSPISVHER	R	Y	95.00%	2.54	0.369	0	1	0	0	2	1,588.72	635	647	TRUE	
SNU216LR_PC2_02	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	3	0.02%	2.90%	VKSPVSLTAHSLIGASPK	K	Q	95.00%	5.15	0.506	0	0	2	0	2	1,872.00	747	764	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	4	5	0.03%	5.01%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	K	R	95.00%	3.55	0.161	0	0	0	1	2	3,690.75	1093	1125	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	4	5	0.03%	5.01%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.32	0.566	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	4	5	0.03%	5.01%	SSLSGDEEDELFK	R	G	95.00%	2.64	0.426	0	2	0	0	2	1,615.58	1279	1291	TRUE	
SNU216LR_PC2_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	2	2	0.01%	3.36%	RPESPSEISPIKGSVR	K	T	95.00%	2.63	0.176	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216LR_PC2_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	2	2	0.01%	3.36%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.03	0.216	0	1	0	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC2_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	1	2	2	0.01%	3.86%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.66	0.379	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC2_02	SLIT-ROBO Rho GTPase-activating protein 2	IPI00478979,IPI00479125	72,272.20	99.80%	2	2	2	0.01%	4.48%	SKSFNNHRPMDPEVIAQDIEATMNSALNEI	R	E	95.00%	4.56	0.352	0	0	0	1	2	3,607.67	512	542	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	SLIT-ROBO Rho GTPase-activating protein 2	IPI00478979,IPI00479125	72,272.20	99.80%	2	2	2	0.01%	4.48%	SSPKSEIEVISEPPEEK	R	V	95.00%	2.53	0.243	0	1	0	0	2	1,964.91	366	382	TRUE	
SNU216LR_PC2_02	Isoform 1 of Cytoskeleton-like bicaudal D protein	IPI00178185,IPI00337667	93,536.00	98.80%	1	1	1	0.01%	0.85%	SPILLPK	R	G	95.00%	2.1	0.0826	1	0	0	0	2	847.4691	582	588	TRUE	
SNU216LR_PC2_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.90%	2	2	2	0.01%	2.39%	KRSPSPSPTPEAK	R	K	95.00%	2.3	0.196	0	1	0	0	2	1,621.64	300	312	TRUE	
SNU216LR_PC2_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.90%	2	2	2	0.01%	2.39%	TLTDEVNSPDSDRR	K	D	95.00%	3.18	0.282	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216LR_PC2_02	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	1	2	2	0.01%	2.80%	GHSAQIAKPIRPGQHPAASPTHPSAIR	R	G	95.00%	5.09	0.532	0	0	1	1	2	2,862.46	915	941	TRUE	
SNU216LR_PC2_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.90%	2	3	3	0.02%	4.94%	RASDDGKLTDPSK	R	T	95.00%	2.94	0.275	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216LR_PC2_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.90%	2	3	3	0.02%	4.94%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.86	0.459	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC2_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	6	16	0.10%	8.95%	AEEPPSQLDQDTQVQDMDEGSDDEEEGQI	K	V	95.00%	5.53	0.397	0	0	1	0	2	3,329.28	339	367	TRUE	
SNU216LR_PC2_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	6	16	0.10%	8.95%	EKQSDDEVYAPGLDIESSLK	R	Q	95.00%	3.45	0.438	0	1	1	0	2	2,303.03	448	467	TRUE	
SNU216LR_PC2_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	6	16	0.10%	8.95%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	6.26	0.472	0	3	9	1	2	2,697.03	317	338	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	4	4	0.03%	7.29%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.65	0.456	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	4	4	0.03%	7.29%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	3.4	0.296	0	1	1	0	2	2,009.92	238	257	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	4	4	0.03%	7.29%	TVFPGAVPVLPASPPPKDSLR	K	S	95.00%	4.1	0.309	0	0	1	0	2	2,225.17	217	237	TRUE	
SNU216LR_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	8	8	0.05%	7.30%	AESGDSLGSEDRDLLYSIDAYR	R	S	95.00%	3.47	0.396	0	0	1	0	2	2,512.09	656	677	TRUE	
SNU216LR_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	8	8	0.05%	7.30%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	3.79	0.375	0	0	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	8	8	0.05%	7.30%	DKSTTPGGTGIKPFLER	K	F	95.00%	4.53	0.343	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216LR_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	8	8	0.05%	7.30%	KNKASPQSEFMPSK	R	G	95.00%	3.86	0.225	0	0	1	0	2	1,658.76	788	801	TRUE	
SNU216LR_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	8	8	0.05%	7.30%	NKASPQSEFMPSK	K	G	95.00%	2.78	0.253	0	1	1	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	8	8	0.05%	7.30%	QPLSEASNQQPLSGGEEK	R	S	94.20%	2.94	0.154	0	1	0	0	2	1,978.88	42	59	TRUE	
SNU216LR_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	8	8	0.05%	7.30%	TQSLPVTEK	K	V	95.00%	2.19	0.288	0	1	0	0	2	1,082.51	483	491	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein KIAA1949	IPI00152853,IPI00735653	67,942.80	99.80%	2	2	2	0.01%	4.40%	LLESPGVEAGEGEAEKEEAGAQGR	K	P	95.00%	5.13	0.45	0	0	1	0	2	2,493.11	365	388	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein KIAA1949	IPI00152853,IPI00735653	67,942.80	99.80%	2	2	2	0.01%	4.40%	LLESPGVEAGEGEAEKEEAGAQGRPLR	K	A	95.00%	3.03	0.304	0	0	1	0	2	2,859.35	365	391	TRUE	
SNU216LR_PC2_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.44%	EAALPPVSPLK	R	A	95.00%	2.28	0.181	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216LR_PC2_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.44%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	R	P	95.00%	3.93	0.165	0	0	1	0	2	3,174.59	306	333	TRUE	
SNU216LR_PC2_02	Isoform 4 of E3 ubiquitin-protein ligase NEDD4-li	IPI00023287,IPI00163321,IP	111,935.10	99.80%	2	2	2	0.01%	3.98%	DTLSNPQSPQPSPYNSPKPQHK	K	V	95.00%	5.13	0.451	0	0	1	0	2	2,527.16	472	493	TRUE	
SNU216LR_PC2_02	Isoform 4 of E3 ubiquitin-protein ligase NEDD4-li	IPI00023287,IPI00163321,IP	111,935.10	99.80%	2	2	2	0.01%	3.98%	TSPQELSEELSR	R	R	95.00%	2.98	0.491	0	1	0	0	2	1,455.64	302	313	TRUE	
SNU216LR_PC2_02	Lamin-B1	IPI00217975	66,278.40	100.00%	1	1	1	0.01%	5.13%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	4.27	0.275	0	0	1	0	2	3,491.54	547	576	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	4	4	0.03%	4.96%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	4.92	0.526	0	1	1	0	2	2,778.05	587	608	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	4	4	0.03%	4.96%	IRQEDENFNSLLQNGDILNSSTEEK	K	F	95.00%	5.01	0.202	0	0	1	0	2	2,973.35	695	719	TRUE	
SNU216LR_PC2_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	4	4	0.03%	4.96%	TEDVMFISDNESFNPSLWEEQRK	R	Q	95.00%	3.52	0.33	0	0	1	0	2	2,881.24	433	455	TRUE	
SNU216LR_PC2_02	Ig heavy chain V-III region HIL	REVERSE_IPI00382488-R	13,565.30	99.80%	1	1	1	0.01%	9.09%	LSNMZMYLTRK	R	S	95.00%	0.254	1	0	1	0	0	2	1,544.64	36	46	TRUE	
SNU216LR_PC2_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	99.90%	2	2	2	0.01%	2.09%	LPELDPRGSDEENLDSETSASTESLLEER	R	A	95.00%	4.09	0.242	0	0	1	0	2	3,298.45	1985	2013	TRUE	
SNU216LR_PC2_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	99.90%	2	2	2	0.01%	2.09%	VQEKPDSPGGSTQIQR	R	Y	95.00%	2.89	0.327	0	1	0	0	2	1,806.84	1284	1299	TRUE	
SNU216LR_PC2_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	98.90%	1	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	3.38	0.408	0	1	1	0	2	1,915.77	775	790	TRUE	
SNU216LR_PC2_02	Leucine-rich repeats and calponin homology (CH)	IPI00396561	78,802.80	100.00%	3	3	3	0.02%	4.35%	ISHEGSPVKPVAIR	R	E	95.00%	2.91	0.423	0	0	1	0	2	1,569.82	414	427	TRUE	
SNU216LR_PC2_02	Leucine-rich repeats and calponin homology (CH)	IPI00396561	78,802.80	100.00%	3	3	3	0.02%	4.35%	RWSGNEPTDEFSDLPLR	K	V	94.20%	2.35	0.193	0	1	0	0	2	2,098.92	322	338	TRUE	
SNU216LR_PC2_02	Leucine-rich repeats and calponin homology (CH)	IPI00396561	78,802.80	100.00%	3	3	3	0.02%	4.35%	WSGNEPTDEFSDLPLR	R	V	95.00%	2.74	0.322	0	1	0	0	2	1,942.82	323	338	TRUE	
SNU216LR_PC2_02	Isoform Delta-1 of Serine/threonine-protein phos	IPI00000030	69,994.40	99.80%	1	1	1	0.01%	2.16%	RKSELPQDVYTIK	R	A	95.00%	2.8	0.236	0	0	1	0	2	1,656.84	571	583	TRUE	
SNU216LR_PC2_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.80%	2	3	3	0.02%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	6.26	0.525	0	0	1	1	2	3,538.48	736	766	TRUE	
SNU216LR_PC2_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.80%	2	3	3	0.02%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	5.18	0.573	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216LR_PC2_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	1	1	1	0.01%	0.77%	LVSPGSANETSSILVESVTR	R	S	95.00%	5.09	0.247	0	1	0	0	2	2,126.04	2452	2471	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	15	0.10%	5.94%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.7	0.45	0	3	2	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	15	0.10%	5.94%	KRSEDESETEDEEEK	K	S	95.00%	3.34	0.221	0	0	1	0	2	1,919.74	666	680	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	15	0.10%	5.94%	RSEDESETEDEEEK	K	S	95.00%	3.71	0.394	0	1	0	0	2	1,791.64	667	680	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	15	0.10%	5.94%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	5.44	0.451	0	0	1	0	2	2,764.06	667	688	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	15	0.10%	5.94%	SEDESETEDEEEK	R	S	95.00%	2.1	0.495	0	2	0	0	2	1,715.51	668	680	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	15	0.10%	5.94%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.42	0.577	0	1	1	0	2	2,607.96	668	688	TRUE	
SNU216LR_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	15	0.10%	5.94%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	6.22	0.618	0	1	2	0	2	2,764.06	668	689	TRUE	
SNU216LR_PC2_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	99.80%	2	3	3	0.02%	10.30%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	3.2	0.266	0	0	1	0	2	2,850.13	44	65	TRUE	
SNU216LR_PC2_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	99.80%	2	3	3	0.02%	10.30%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.43	0.592	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216LR_PC2_02	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	100.00%	3	3	3	0.02%	6.94%	GSIDREDGSLQGPIGNQHIYQPVGKPDPAA	R	K	95.00%	3.96	0.229	0	0	0	1	2	3,518.71	842	874	TRUE	
SNU216LR_PC2_02	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	100.00%	3	3	3	0.02%	6.94%	QATVSWDSGGSDEAPPKPSRPGYPSPR	R	S	95.00%	3.97	0.242	0	0	0	1	2	2,906.31	698	724	TRUE	
SNU216LR_PC2_02	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	100.00%	3	3	3	0.02%	6.94%	RSYWEMRGNALEK	R	K	82.90%	2.5	0.197	0	1	0	0	2	1,735.76	178	190	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	4	0.03%	2.96%	QNPEQSADEDAEK	K	N	95.00%	3.35	0.439	0	1	0	0	2	1,540.58	161	173	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	4	0.03%	2.96%	QPLLLSEDEEDTKR	K	V	95.00%	2.67	0.167	0	2	1	0	2	1,752.81	34	47	TRUE	
SNU216LR_PC2_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	99.80%	1	1	1	0.01%	0.91%	KISGTTALQEALK	R	E	95.00%	3.06	0.278	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216LR_PC2_02	Histone H1.5	IPI00217468	22,450.50	99.10%	2	2	2	0.01%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.42	0.454	0	1	0	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC2_02	Histone H1.5	IPI00217468	22,450.50	99.10%	2	2	2	0.01%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	81.90%	2.77	0.154	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216LR_PC2_02	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	5	5	0.03%	3.37%	FSGFSAKPNNSGEAPSSPTPK	K	R	95.00%	3.51	0.384	0	1	1	0	2	2,186.98	139	159	TRUE	
SNU216LR_PC2_02	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	5	5	0.03%	3.37%	KFSGFSAKPNNSGEAPSSPTPK	R	R	95.00%	5.57	0.468	0	1	1	0	2	2,315.07	138	159	TRUE	
SNU216LR_PC2_02	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	5	5	0.03%	3.37%	LTTTGQVTSPVK	K	G	95.00%	2.42	0.274	0	1	0	0	2	1,311.66	115	126	TRUE	
SNU216LR_PC2_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	2	2	2	0.01%	4.52%	AGGLDWPEATEVSPSR	R	T	95.00%	3.42	0.494	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC2_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	2	2	2	0.01%	4.52%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	4.27	0.374	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216LR_PC2_02	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	99,843.70	100.00%	3	3	3	0.02%	9.72%	NLSEIENVHGFVSHSHISPIK	K	A	80.80%	2.59	0.154	0	0	1	0	2	2,424.17	141	161	TRUE	
SNU216LR_PC2_02	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	99,843.70	100.00%	3	3	3	0.02%	9.72%	SKPSEPIQPVNTWEISSLPSSTVTSETLPSSLS	R	Y	95.00%	6.4	0.0349	0	0	1	0	2	4,106.01	70	107	TRUE	
SNU216LR_PC2_02	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	99,843.70	100.00%	3	3	3	0.02%	9.72%	YQDEDTPPQEHISPQITNEVIGPELVHVSEK	R	N	95.00%	4.93	0.289	0	0	1	0	2	3,608.68	110	140	TRUE	
SNU216LR_PC2_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	3	5	0.03%	7.50%	EPTPSIASDISLPIATQELR	K	Q	95.00%	3.72	0.524	0	3	0	0	2	2,218.10	723	742	TRUE	
SNU216LR_PC2_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	3	5	0.03%	7.50%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	6.12	0.037	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216LR_PC2_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	3	5	0.03%	7.50%	SSSSLLASPGHISVK	R	E	95.00%	2.82	0.171	0	1	0	0	2	1,549.76	708	722	TRUE	
SNU216LR_PC2_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	99.90%	2	2	2	0.01%	3.63%	DFQEYVEPGEDFPASPQR	R	R	95.00%	4.09	0.426	0	1	0	0	2	2,190.90	193	210	TRUE	
SNU216LR_PC2_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	99.90%	2	2	2	0.01%	3.63%	DFQEYVEPGEDFPASPQRR	R	N	95.00%	3.03	0.293	0	1	0	0	2	2,347.00	193	211	TRUE	
SNU216LR_PC2_02	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	NESEDNKFSDDSDDDFVQPR	R	K	95.00%	3.49	0.427	0	1	0	0	2	2,518.89	983	1002	TRUE	
SNU216LR_PC2_02	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	SEWLDPSQKSPLHVGETR	K	K	95.00%	2.75	0.187	0	0	1	0	2	2,146.00	768	785	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	2	2	0.01%	2.84%	QGSFTIEKPSPNIPIEIIPHINK	R	Q	95.00%	2.5	0.223	0	0	1	0	2	2,652.38	837	859	TRUE	
SNU216LR_PC2_02	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	2	2	0.01%	2.84%	SSPVNNHHSPGQTPTLGQPEAR	K	A	95.00%	3.15	0.331	0	0	1	0	2	2,391.08	1522	1543	TRUE	
SNU216LR_PC2_02	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	99.80%	2	3	3	0.02%	3.98%	ADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.06	0.362	0	0	1	0	2	3,164.27	543	570	TRUE	
SNU216LR_PC2_02	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	99.80%	2	3	3	0.02%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.34	0.306	0	0	1	1	2	3,320.37	542	570	TRUE	
SNU216LR_PC2_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.96	0.485	0	2	3	0	2	1,593.72	221	235	TRUE	
SNU216LR_PC2_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.39	0.267	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC2_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	3	0.02%	4.30%	RYEDDGISDDEIEGKR	R	T	95.00%	3.1	0.272	0	1	0	0	2	1,976.82	21	36	TRUE	
SNU216LR_PC2_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	3	0.02%	4.30%	TPQRGDEEGLGGEEEEEEEEEEEDDSAEEGC	R	L	95.00%	8.05	0.659	0	0	1	0	2	3,773.42	844	877	TRUE	
SNU216LR_PC2_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	3	0.02%	4.30%	YEDDGISDDEIEGK	R	R	95.00%	2.49	0.398	0	1	0	0	2	1,664.62	22	35	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	5.9	0.371	0	0	1	0	2	2,877.32	600	626	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	5.02	0.481	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	6.91	0.559	0	0	2	0	2	3,292.37	627	658	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	7.11	0.0568	0	0	1	0	2	3,319.53	596	626	TRUE	
SNU216LR_PC2_02	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	100.00%	1	2	3	0.02%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.86	0.327	0	1	2	0	2	1,498.67	12	23	TRUE	
SNU216LR_PC2_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	3	3	0.02%	7.71%	GGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	5.52	0.573	0	1	0	0	2	2,410.07	505	530	TRUE	
SNU216LR_PC2_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	3	3	0.02%	7.71%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	3.79	0.405	0	1	1	0	2	2,210.89	537	555	TRUE	
SNU216LR_PC2_02	137 kDa protein	IPI00218136,IPI00515042	137,400.40	99.80%	2	2	2	0.01%	2.32%	SHSQASLAGPGPVDPSNR	R	S	95.00%	3.44	0.291	0	0	1	0	2	1,856.83	135	152	TRUE	
SNU216LR_PC2_02	137 kDa protein	IPI00218136,IPI00515042	137,400.40	99.80%	2	2	2	0.01%	2.32%	SNSMLELAPK	R	V	95.00%	2.27	0.215	0	1	0	0	2	1,169.53	153	162	TRUE	
SNU216LR_PC2_02	Protein KIAA1543	IPI00176702,IPI00640524	134,752.40	99.80%	2	2	2	0.01%	1.84%	DLPDGHAASPR	K	G	95.00%	2.07	0.363	0	1	0	0	2	1,215.52	326	336	TRUE	
SNU216LR_PC2_02	Protein KIAA1543	IPI00176702,IPI00640524	134,752.40	99.80%	2	2	2	0.01%	1.84%	KFSPSQVPVQTR	R	S	95.00%	2.62	0.323	0	1	0	0	2	1,453.72	812	823	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	APQTSSSPPPVR	R	R	95.00%	2.41	0.367	0	2	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	HRPSPPATPPPK	R	T	95.00%	3.01	0.439	0	1	4	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	KAASPSPQSVR	K	R	95.00%	1.91	0.268	0	1	0	0	2	1,287.55	744	754	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	KEKTPELPEPSVK	K	V	95.00%	2.74	0.297	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	KETESEAEDNLDDLEK	K	H	95.00%	4.82	0.447	0	3	2	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.54	0.399	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	5.7	0.157	0	0	2	0	2	2,791.42	772	797	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	KVELSESEEDKGGK	R	M	95.00%	3.12	0.341	0	1	0	0	2	1,614.73	454	467	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	RESPSPAPKPR	K	K	95.00%	3.07	0.402	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	RRSPSPAPPPR	R	R	95.00%	2.95	0.427	0	0	1	0	2	1,297.65	567	577	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	RTASPPPPPK	R	R	95.00%	2.12	0.221	0	1	0	0	2	1,127.56	622	631	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	RTASPPPPPKR	R	R	95.00%	1.74	0.309	0	0	1	0	2	1,283.66	622	632	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	SVSGSPEPAAK	R	K	95.00%	2.43	0.388	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	TASPPPPPKR	R	R	95.00%	2.52	0.202	0	1	1	0	2	1,207.53	623	632	TRUE	
SNU216LR_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	21	29	0.19%	18.10%	VPKPEPIPEPKEPSPEK	K	N	95.00%	4.87	0.534	0	1	1	1	2	1,977.99	247	263	TRUE	
SNU216LR_PC2_02	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	3	4	4	0.03%	6.19%	IHAESLLLDSPAVAK	R	S	95.00%	3.89	0.404	0	1	0	0	2	1,643.84	370	384	TRUE	
SNU216LR_PC2_02	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	3	4	4	0.03%	6.19%	LHSSNPNLSTLDFGEEK	R	N	95.00%	3.72	0.467	0	1	1	0	2	1,967.87	270	286	TRUE	
SNU216LR_PC2_02	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	3	4	4	0.03%	6.19%	TYSAPAINAIQVPKPFSGPVR	R	L	95.00%	3.26	0.333	0	0	1	0	2	2,293.17	249	269	TRUE	
SNU216LR_PC2_02	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	5	5	0.03%	7.95%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	4.35	0.359	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216LR_PC2_02	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	5	5	0.03%	7.95%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	N	95.00%	5.08	0.125	0	0	0	1	2	4,132.98	549	592	TRUE	
SNU216LR_PC2_02	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	5	5	0.03%	7.95%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	4.17	0.571	0	1	1	1	2	2,687.26	674	699	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	3.72	0.403	0	0	1	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	95.00%	6.91	0.106	0	0	2	0	2	3,473.52	264	296	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	KSTGSPTQETQAPFIAK	K	R	95.00%	4.13	0.0463	0	1	0	0	2	1,870.89	67	83	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	QSSPSGSEQLVR	R	R	95.00%	2.76	0.461	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQK	R	R	95.00%	5.51	0.0053	0	2	1	0	2	2,990.13	16	40	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	95.00%	7.8	0.0033	0	0	2	0	2	3,066.27	16	41	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	SSTSGDTEEEEEEEVVPFSSDEQK	R	R	95.00%	4.36	0	0	1	0	0	2	2,754.07	17	40	TRUE	
SNU216LR_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	9	12	0.08%	23.90%	STGSPTQETQAPFIAK	K	R	95.00%	3.06	0.415	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC2_02	Metastasis-associated protein MTA2	IPI00171798	75,025.10	100.00%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	95.00%	4.35	0.125	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216LR_PC2_02	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	3	3	3	0.02%	10.60%	ARPSQFPEQSSSAQQNGSVSDISPVQAAK	R	K	91.50%	5.47	0.0626	0	0	1	0	2	3,081.43	98	126	TRUE	
SNU216LR_PC2_02	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	3	3	3	0.02%	10.60%	ELTVDPTAAGDVRPIMHHPPNQIDDLETQV	K	D	95.00%	4.61	0.232	0	0	0	1	2	4,243.99	532	569	TRUE	
SNU216LR_PC2_02	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	3	3	3	0.02%	10.60%	YANRVKELTVDPTAAGDVR	R	P	84.20%	2.55	0.123	0	1	0	0	2	2,155.05	526	544	TRUE	
SNU216LR_PC2_02	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	98.90%	1	1	1	0.01%	2.79%	SGTLKSPPKGFDTTAINK	K	S	95.00%	3.67	0.261	0	0	1	0	2	1,941.97	74	91	TRUE	
SNU216LR_PC2_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	2	3	4	0.03%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	95.00%	3.1	0.312	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216LR_PC2_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	2	3	4	0.03%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	5.14	0.474	0	1	2	0	2	2,246.87	1059	1079	TRUE	
SNU216LR_PC2_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	3	3	0.02%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	5.1	0.449	0	0	1	0	2	2,298.08	9	31	TRUE	
SNU216LR_PC2_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	3	3	0.02%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.84	0.383	0	1	1	0	2	2,541.20	7	31	TRUE	
SNU216LR_PC2_02	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	DVPSPGGLSAPSSPR	K	N	95.00%	3.43	0.402	0	1	0	0	2	1,503.68	429	443	TRUE	
SNU216LR_PC2_02	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	RKDVPSPGGLSAPSSPR	R	N	95.00%	4.67	0.475	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.03%	5.28%	DRTPPHLLYSDR	R	D	95.00%	3.14	0.325	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.03%	5.28%	RNSLEGYSR	R	S	95.00%	2.73	0.132	0	1	0	0	2	1,161.50	560	568	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.03%	5.28%	SLSPVAAPPLREPR	R	A	95.00%	2.76	0.218	0	0	1	0	2	1,569.82	265	278	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	4	4	4	0.03%	5.28%	TFLEGDWTSPSK	R	S	95.00%	2.44	0.342	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216LR_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	8	9	0.06%	11.80%	AGKEPAKPSPSR	K	D	95.00%	3.02	0.366	0	1	1	0	2	1,304.64	636	647	TRUE	
SNU216LR_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	8	9	0.06%	11.80%	TEGYAAFQEDSSGDEAESPSK	R	M	95.00%	3.16	0.276	0	1	0	0	2	2,364.84	81	101	TRUE	
SNU216LR_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	8	9	0.06%	11.80%	TGEPSPPHDILHEPPDVVSDDEKDHGK	R	K	95.00%	4.43	0.292	0	0	1	2	2	3,107.30	43	69	TRUE	
SNU216LR_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	8	9	0.06%	11.80%	TPSSEEISPTK	R	F	95.00%	2.69	0.483	0	1	0	0	2	1,255.55	26	36	TRUE	
SNU216LR_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	8	9	0.06%	11.80%	TPSSEEISPTKFPGLYR	R	T	95.00%	3.16	0.438	0	1	1	0	2	1,988.94	26	42	TRUE	
SNU216LR_PC2_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	2	4	5	0.03%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	3.55	0.28	0	0	1	1	2	2,727.34	846	871	TRUE	
SNU216LR_PC2_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	2	4	5	0.03%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.44	0.344	0	0	2	1	2	3,113.52	846	874	TRUE	
SNU216LR_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	8	9	0.06%	8.46%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	5.95	0.449	0	0	1	1	2	4,118.93	479	519	TRUE	
SNU216LR_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	8	9	0.06%	8.46%	GSSEQAESDNMDVPPEDDSK	K	E	93.70%	2.66	0.176	0	1	0	0	2	2,216.82	55	74	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	8	9	0.06%	8.46%	PMEEDGEEKSPSKK	R	K	95.00%	3.81	0.36	0	1	1	0	2	1,670.70	373	386	TRUE	
SNU216LR_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	8	9	0.06%	8.46%	RPMEEDGEEKSPSK	K	K	95.00%	3.46	0.405	0	2	1	1	2	1,698.70	372	385	TRUE	
SNU216LR_PC2_02	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.80%	2	2	2	0.01%	2.07%	GKASPFEEDQNR	K	D	95.00%	2.13	0.394	0	1	0	0	2	1,457.61	133	144	TRUE	
SNU216LR_PC2_02	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.80%	2	2	2	0.01%	2.07%	QASPTEVVER	R	L	95.00%	2.16	0.231	0	1	0	0	2	1,195.54	180	189	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	2	2	2	0.01%	2.44%	DTEQKELDQDMVTEDEDDPGSHKR	K	G	93.70%	2.83	0.181	0	0	0	1	2	2,897.18	720	743	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	2	2	2	0.01%	2.44%	KRQSPEPSPVTLGR	R	R	95.00%	3.09	0.202	0	0	1	0	2	1,631.83	1411	1424	TRUE	
SNU216LR_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	7	0.04%	5.45%	ARGQGSSPVAMQK	R	A	95.00%	2.73	0.294	0	1	0	0	2	1,396.64	340	352	TRUE	
SNU216LR_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	7	0.04%	5.45%	GQGSSPVAMQK	R	A	95.00%	1.98	0.351	0	1	0	0	2	1,169.50	342	352	TRUE	
SNU216LR_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	7	0.04%	5.45%	MQEAMTQEVSDVFSDTTTPIK	R	L	95.00%	3.91	0.393	0	1	1	0	2	2,438.05	587	607	TRUE	
SNU216LR_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	7	0.04%	5.45%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	4.85	0.479	0	0	2	0	2	2,657.30	709	732	TRUE	
SNU216LR_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	7	0.04%	5.45%	SLLDASEEAIKK	K	D	95.00%	2.33	0.396	0	1	0	0	2	1,383.68	721	732	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	12	0.08%	5.15%	DKEVSDDEAEEK	R	E	95.00%	3.1	0.416	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	12	0.08%	5.15%	DKEVSDDEAEEKEDK	R	E	95.00%	3.68	0.351	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	12	0.08%	5.15%	EEKESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.9	0.251	0	0	1	0	2	2,659.07	370	391	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	12	0.08%	5.15%	ERDKEVSDDEAEEK	K	E	95.00%	3.76	0.307	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	12	0.08%	5.15%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.16	0.425	0	2	1	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	12	0.08%	5.15%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.64	0.433	0	1	1	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	7	11	12	0.08%	5.15%	EVSDDEAEEKEDKEEEK	K	E	95.00%	4.41	0.444	0	0	1	0	2	2,117.83	351	367	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	3	3	3	0.02%	5.50%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	3.49	0.169	0	1	0	0	2	2,046.92	510	526	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	3	3	3	0.02%	5.50%	KKSTSLEPVER	R	S	95.00%	2.58	0.304	0	1	0	0	2	1,353.68	370	380	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	3	3	3	0.02%	5.50%	SAPYQWPSPEAGIELMR	K	D	95.00%	2.63	0.356	0	1	0	0	2	2,011.90	186	202	TRUE	
SNU216LR_PC2_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	3	3	3	0.02%	1.74%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	3.46	0.251	0	0	1	0	2	2,619.03	2774	2794	TRUE	
SNU216LR_PC2_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	3	3	3	0.02%	1.74%	QHYLSSEDEPDDNPDVLDSR	K	I	95.00%	3.03	0.256	0	0	1	0	2	2,490.93	2775	2794	TRUE	
SNU216LR_PC2_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	3	3	3	0.02%	1.74%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	6.69	0.626	0	0	1	0	2	3,718.48	2973	3004	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.50%	2	2	2	0.01%	2.72%	DSALAEAPEGLSPAPPAR	R	S	95.00%	3.2	0.416	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.50%	2	2	2	0.01%	2.72%	HAPEHHPGHGDRLSPGER	R	R	89.90%	2.19	0.221	0	0	0	1	2	2,065.91	994	1011	TRUE	
SNU216LR_PC2_02	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	2	2	2	0.01%	4.61%	EESDDEAAVEEEEEKKPK	K	T	95.00%	5.34	0.467	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216LR_PC2_02	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	2	2	2	0.01%	4.61%	TETVEEPMEEEEAAKEEKEESDDEAAVEEEEI	K	K	95.00%	4.88	0.378	0	0	1	0	2	4,035.60	286	319	TRUE	
SNU216LR_PC2_02	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	99.80%	2	3	3	0.02%	3.46%	GGGQLDLLGVSLASLKK	R	Q	95.00%	3.15	0.334	0	1	0	0	2	1,735.94	409	425	TRUE	
SNU216LR_PC2_02	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	99.80%	2	3	3	0.02%	3.46%	VENSPQVDGSPPGLEGLLGGIGEK	R	G	95.00%	4.4	0.457	0	1	1	0	2	2,429.16	1071	1094	TRUE	
SNU216LR_PC2_02	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	99.70%	2	3	3	0.02%	4.96%	DGLNQTTIPVSPPSTTKPSR	K	E	95.00%	4.84	0.145	0	1	1	0	2	2,176.06	474	493	TRUE	
SNU216LR_PC2_02	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	99.70%	2	3	3	0.02%	4.96%	EQYVPPRSPK	K	-	93.40%	2.26	0.163	0	1	0	0	2	1,280.60	596	605	TRUE	
SNU216LR_PC2_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	3	3	3	0.02%	8.87%	RQSSSYDDPWK	R	I	94.10%	2.29	0.173	0	1	0	0	2	1,448.58	218	228	TRUE	
SNU216LR_PC2_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	3	3	3	0.02%	8.87%	SHSGTSPDNTAPPPPPPRPQPSHSR	R	S	94.30%	2.8	0.206	0	0	1	0	2	2,681.22	483	507	TRUE	
SNU216LR_PC2_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	3	3	3	0.02%	8.87%	TGSDHTNPTSPLLVKPSDLLEENKINSSVK	R	F	94.60%	6.42	0.0181	0	0	1	0	2	3,300.64	421	450	TRUE	
SNU216LR_PC2_02	Serum deprivation-response protein	IPI00005809	47,172.90	99.30%	1	1	1	0.01%	3.06%	SSPFKVSPLTFGR	K	K	85.40%	2.13	0.175	0	1	0	0	2	1,502.74	287	299	TRUE	
SNU216LR_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	5	0.03%	7.68%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	4.77	0.431	0	1	0	0	2	3,490.40	206	235	TRUE	
SNU216LR_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	5	0.03%	7.68%	GTDTQTPAVLSPSK	K	T	95.00%	3.28	0.479	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216LR_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	5	0.03%	7.68%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	4.69	0.156	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216LR_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	5	5	0.03%	7.68%	TNKSPEAKPLPGK	K	L	95.00%	3.69	0.393	0	1	1	0	2	1,446.74	64	76	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	7.29	0.421	0	0	2	1	2	3,353.45	35	69	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	7.14	0.471	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	6	0.04%	5.61%	QTELFAHFIQPAAQKTPTSPLK	K	M	95.00%	4.49	0.385	0	0	1	0	2	2,613.25	98	119	TRUE	
SNU216LR_PC2_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.90%	2	2	2	0.01%	9.31%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ	R	V	95.00%	8.4	0.597	0	0	1	0	2	4,229.03	209	247	TRUE	
SNU216LR_PC2_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.90%	2	2	2	0.01%	9.31%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.36	0.53	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216LR_PC2_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.16	0.41	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC2_02	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	99.80%	2	3	3	0.02%	5.69%	RPWRPEEAVEDPDEEDEDNTSEAENGFSLE	K	L	95.00%	4.16	0.27	0	0	1	0	2	4,068.73	14	47	TRUE	
SNU216LR_PC2_02	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	99.80%	2	3	3	0.02%	5.69%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	5.98	0.666	0	0	1	1	0	2	3,132.14	621	646	TRUE	
SNU216LR_PC2_02	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	1	2	4	0.03%	3.39%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	4.14	0.371	0	1	3	0	2	2,929.08	432	455	TRUE	
SNU216LR_PC2_02	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	2	2	2	0.01%	1.50%	APLKPYPVSPSDK	K	V	95.00%	2.89	0.496	0	0	1	0	2	1,478.73	1043	1055	TRUE	
SNU216LR_PC2_02	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	2	2	2	0.01%	1.50%	APLKPYPVSPSDKVLIQEK	K	T	95.00%	3.59	0.405	0	0	1	0	2	2,189.16	1043	1061	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger CCCH-type domain-conta	IPI00329547	196,639.60	99.40%	2	2	2	0.01%	1.14%	EVSPEVVR	K	S	95.00%	1.65	0.363	0	1	0	0	2	994.4605	196	203	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger CCCH-type domain-conta	IPI00329547	196,639.60	99.40%	2	2	2	0.01%	1.14%	SLSPSHLTEDR	R	Q	88.00%	2.36	0.132	0	1	0	0	2	1,321.58	875	885	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.75	0.307	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	FLSAQSHSTSPQGLDSPLPLEGSGAHQVLHI	R	G	93.70%	3.95	0.118	0	0	0	1	2	3,635.71	835	868	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	GSPTSAYPER	K	K	95.00%	1.94	0.47	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	HGSDPAFAPGPR	R	G	95.00%	2.12	0.354	0	1	1	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	KGSPTPGFSTR	R	R	95.00%	1.8	0.256	1	0	0	0	2	1,214.56	879	889	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	RGSLTLTISGESPK	R	A	95.00%	2.91	0.288	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	RGSPVPPVPERR	R	S	95.00%	3.18	0.234	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	RLSLGQGDSTEAATEER	R	G	95.00%	4.08	0.4	0	0	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	RMEDEGGFPVPQENGQPESPRR	R	L	93.70%	3.22	0.166	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	3.07	0.176	0	0	1	0	2	2,639.07	4	25	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	RSSPVPPVPERR	R	G	95.00%	2.96	0.185	0	0	1	0	2	1,456.74	923	934	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	VPAAFPTKVPVPGPGSGGNGPER	R	E	95.00%	5.05	0.311	0	0	1	0	2	2,268.12	632	654	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	14	14	0.09%	18.70%	VPVPGPGSGGNGPER	K	E	95.00%	1.94	0.263	0	1	0	0	2	1,456.66	640	654	TRUE	
SNU216LR_PC2_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	99.80%	1	1	1	0.01%	0.97%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.12	0.539	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216LR_PC2_02	LKB1 interacting protein	IPI00170934	121,345.00	98.60%	1	1	1	0.01%	1.09%	AKNSPPQAPSTR	R	D	95.00%	1.97	0.333	0	1	0	0	2	1,333.63	769	780	TRUE	
SNU216LR_PC2_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	4	4	0.03%	5.52%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.43	0.568	0	1	1	0	2	2,016.94	789	806	TRUE	
SNU216LR_PC2_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	4	4	0.03%	5.52%	DSDQVAQSDGEESPAAEEQLLGEHIK	K	E	95.00%	4.43	0.283	0	0	1	0	2	2,862.23	520	545	TRUE	
SNU216LR_PC2_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	4	4	0.03%	5.52%	EQTLSPTITSGLHNIAR	R	S	95.00%	3.37	0.392	0	1	0	0	2	1,917.94	1159	1175	TRUE	
SNU216LR_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.56%	DKASPEPEKDFSEK	K	A	95.00%	3.22	0.323	0	1	1	0	2	1,686.73	684	697	TRUE	
SNU216LR_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.56%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.61	0.52	0	0	1	0	2	2,303.16	550	569	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.56%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.13	0.25	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216LR_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.56%	TGQAGSLSGSPKPFSPQLSAPITTK	K	T	95.00%	2.86	0.223	0	0	1	0	2	2,537.27	500	524	TRUE	
SNU216LR_PC2_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	4	0.03%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.67	0.491	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	4	0.03%	0.88%	SSSVGSSSSYPISPAVSR	R	T	95.00%	2.27	0.216	0	2	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.66%	IKWDEQTSNTKGDDDEESDEEAVK	R	K	95.00%	4.57	0.429	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216LR_PC2_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.66%	WDEQTSNTKGDDDEESDEEAVKK	K	T	95.00%	4.12	0.429	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216LR_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	3	4	4	0.03%	2.82%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.24	0.287	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216LR_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	3	4	4	0.03%	2.82%	LEKSPLAGNK	K	D	95.00%	2.07	0.229	0	1	0	0	2	1,136.57	622	631	TRUE	
SNU216LR_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	3	4	4	0.03%	2.82%	LEKSPLAGNKDNK	K	F	95.00%	2.89	0.198	0	0	1	0	2	1,493.74	622	634	TRUE	
SNU216LR_PC2_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	3	0.02%	3.16%	DLSRITLDAQDVLAHLVQMAFK	R	Y	95.00%	3.19	0.315	0	0	1	0	2	2,644.26	706	727	TRUE	
SNU216LR_PC2_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	3	0.02%	3.16%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	4.05	0.231	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216LR_PC2_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	3	0.02%	3.16%	SSPNVANQPPSPGGK	R	S	95.00%	2.83	0.293	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216LR_PC2_02	Protein AATF	IPI00302238	63,293.10	99.90%	1	2	2	0.01%	3.38%	AGDRNSEDDGVVMTFSSVK	R	V	95.00%	3.94	0.449	0	1	1	0	2	2,093.88	198	216	TRUE	
SNU216LR_PC2_02	clathrin heavy chain 1	IPI00024067,IPI00455383	187,763.60	100.00%	1	1	1	0.01%	0.90%	AGKTLQIFNIEMKSK	K	M	95.00%	2.46	0.19	0	1	0	0	2	1,787.91	83	97	TRUE	
SNU216LR_PC2_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	6.29%	AGVVNGTGAPGQSPGAGR	K	A	95.00%	2.69	0.36	0	1	0	0	2	1,632.75	374	391	TRUE	
SNU216LR_PC2_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	6.29%	LPEASQSPLVLK	K	Q	95.00%	2.63	0.367	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216LR_PC2_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	6.29%	VAPVINNGSPTILGK	K	R	95.00%	2.17	0.293	0	1	0	0	2	1,559.82	568	582	TRUE	
SNU216LR_PC2_02	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	2	2	0.01%	2.29%	EQLVDQGIMPPLKSPAAFHEQIK	R	S	95.00%	3.83	0.483	0	0	1	0	2	2,656.32	64	86	TRUE	
SNU216LR_PC2_02	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	2	2	0.01%	2.29%	TREQLVDQGIMPPLKSPAAFHEQIK	R	S	95.00%	3.77	0.284	0	0	0	1	2	2,913.47	62	86	TRUE	
SNU216LR_PC2_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	99.80%	2	2	2	0.01%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.2	0.495	0	0	1	0	2	2,751.20	13	38	TRUE	
SNU216LR_PC2_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	99.80%	2	2	2	0.01%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.2	0.523	0	1	0	0	2	1,971.82	39	56	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp434A112	IPI00186028,IPI00748953	110,490.70	99.90%	2	2	2	0.01%	3.34%	KQQHVISTEEGDMMETNSTDDEK	R	S	95.00%	5.12	0.447	0	0	1	0	2	2,812.07	840	862	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp434A112	IPI00186028,IPI00748953	110,490.70	99.90%	2	2	2	0.01%	3.34%	VVPQQITHTSPR	K	I	95.00%	2.27	0.202	0	1	0	0	2	1,442.72	435	446	TRUE	
SNU216LR_PC2_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.77%	ALQLSNSPGASSAFLK	K	A	95.00%	2.82	0.209	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216LR_PC2_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.77%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.64	0.174	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216LR_PC2_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.77%	RAETFGGFDSHQMNASK	R	G	95.00%	3.39	0.285	0	0	1	0	2	1,962.82	2468	2484	TRUE	
SNU216LR_PC2_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.77%	SGSLDSELSVSPK	K	R	95.00%	2.64	0.312	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216LR_PC2_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.77%	SGSLDSELSVSPKR	K	N	95.00%	2.77	0.25	0	1	0	0	2	1,541.72	2722	2735	TRUE	
SNU216LR_PC2_02	Methionyl-tRNA synthetase	IPI00008240	101,117.50	100.00%	1	2	2	0.01%	3.11%	TSPKPAVVETVTTAKPQQIQALMDEVTK	K	Q	95.00%	4.95	0.5	0	0	1	1	2	3,090.58	824	851	TRUE	
SNU216LR_PC2_02	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	99.60%	2	2	2	0.01%	4.00%	ELPSLSPAPDTGLSPSKR	R	T	95.00%	3.38	0.306	0	0	1	0	2	1,931.95	253	270	TRUE	
SNU216LR_PC2_02	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	99.60%	2	2	2	0.01%	4.00%	RLSEQLAHTPTAFK	R	R	92.50%	2.83	0.164	0	0	1	0	2	1,678.83	494	507	TRUE	
SNU216LR_PC2_02	TATA element modulatory factor	IPI00010586	123,173.80	99.30%	2	2	2	0.01%	2.47%	KPFSVSSTPTMSR	R	S	85.90%	2.45	0.146	0	1	0	0	2	1,584.65	922	934	TRUE	
SNU216LR_PC2_02	TATA element modulatory factor	IPI00010586	123,173.80	99.30%	2	2	2	0.01%	2.47%	SVSEINSDDELSGK	R	G	95.00%	3.22	0.347	0	1	0	0	2	1,559.65	338	351	TRUE	
SNU216LR_PC2_02	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	1	1	1	0.01%	1.38%	LLVDVDESTLSPEEQKER	K	K	95.00%	3.66	0.254	0	0	1	0	2	2,167.02	478	495	TRUE	
SNU216LR_PC2_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSSLTNDVAK	K	Q	95.00%	4.68	0.16	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216LR_PC2_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	3.88	0.0514	0	1	0	0	2	1,896.90	850	867	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	2.90%	KHSPSPPPPTPTESR	R	K	95.00%	4.17	0.508	0	1	3	0	2	1,774.76	326	340	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	2.90%	RKHSPSPPPPTPTESR	K	K	95.00%	4.43	0.504	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216LR_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	2.90%	SPQVPAAQQMLNFPEK	R	N	95.00%	3.28	0.466	0	1	0	0	2	1,864.87	573	588	TRUE	
SNU216LR_PC2_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bip	IPI00376976,IPI00410303	125,764.00	100.00%	3	4	7	0.04%	4.33%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	4.36	0.471	0	2	1	0	2	2,476.01	714	733	TRUE	
SNU216LR_PC2_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bip	IPI00376976,IPI00410303	125,764.00	100.00%	3	4	7	0.04%	4.33%	SHPLDLSPNVQSR	K	D	95.00%	2.23	0.289	0	1	0	0	2	1,529.71	1024	1036	TRUE	
SNU216LR_PC2_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bip	IPI00376976,IPI00410303	125,764.00	100.00%	3	4	7	0.04%	4.33%	TLSDPPSPLPHGPPNK	R	G	95.00%	3.23	0.373	0	3	0	0	2	1,813.79	840	855	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00000728	112,423.40	100.00%	1	1	1	0.01%	1.22%	SPGASNFSTLPK	K	I	95.00%	2.38	0.385	0	1	0	0	2	1,285.58	229	240	TRUE	
SNU216LR_PC2_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	3.21%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.07	0.394	0	0	1	0	2	3,017.35	1574	1599	TRUE	
SNU216LR_PC2_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	3.21%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	3.63	0.22	0	0	1	0	2	2,875.18	1457	1482	TRUE	
SNU216LR_PC2_02	NOL1/NOP2/Sun domain family 2 protein	IPI00306369	86,472.80	100.00%	1	1	1	0.01%	2.61%	ESTQLSPADLTEGKPTDPSK	R	L	95.00%	3.35	0.292	0	0	1	0	2	2,181.00	451	470	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	AEGEPQEESPLKSK	K	S	95.00%	3.01	0.31	0	1	0	0	2	1,608.72	169	182	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.17	0.382	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	DTFEHDPSESIDEFNK	K	S	95.00%	2.86	0.294	0	1	0	0	2	1,989.78	189	204	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	ETQSPEQVKSEK	K	L	95.00%	3.19	0.401	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.25	0.588	0	3	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.57	0.501	0	1	2	1	2	2,726.13	369	391	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	KAEGEPQEESPLKSK	K	S	95.00%	4.55	0.494	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	KETQSPEQVKSEK	K	L	95.00%	3.56	0.347	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	LKDLFDYSPPLHK	K	N	95.00%	2.79	0.299	0	2	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	NTPSQHSHSIQHSPER	K	S	95.00%	2.89	0.303	0	0	2	0	2	1,921.83	256	271	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.92	0.532	0	2	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.96	0.255	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	SQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.12	0.232	0	0	1	0	2	2,688.10	183	204	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.56	0.357	0	1	1	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	YSPSQNSPIHHIPSR	R	R	95.00%	2.93	0.389	0	0	2	1	2	1,799.82	284	298	TRUE	
SNU216LR_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	23	30	0.19%	17.00%	YSPSQNSPIHHIPSRR	R	S	95.00%	3.44	0.402	0	0	0	1	2	1,955.92	284	299	TRUE	
SNU216LR_PC2_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	3.63	0.373	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC2_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	83.40%	2.17	0.196	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216LR_PC2_02	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	GRSPRSPSGHPHVR	R	R	95.00%	3.09	0.415	0	0	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC2_02	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	IASDEEIQGTK	K	D	95.00%	2.17	0.425	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC2_02	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	3.16	0.34	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC2_02	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	3.24	0.431	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC2_02	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SRDSGDENEPIQER	R	F	95.00%	2.2	0.278	0	1	0	0	2	1,791.66	894	907	TRUE	
SNU216LR_PC2_02	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SRSRDSGDENEPIQER	R	F	80.30%	2.23	0.199	0	1	0	0	2	2,114.76	892	907	TRUE	
SNU216LR_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	7	7	7	0.04%	7.45%	AEEEHLSSSGGLAK	R	N	95.00%	2.98	0.308	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216LR_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	7	7	7	0.04%	7.45%	ATSFEESER	R	K	95.00%	1.99	0.337	0	1	0	0	2	1,135.43	947	955	TRUE	
SNU216LR_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	7	7	7	0.04%	7.45%	EPPSPSETGPNSLGTFK	R	K	95.00%	2.85	0.362	0	1	0	0	2	1,824.81	586	602	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	7	7	7	0.04%	7.45%	EPPSPSETGPNSLGTFKK	R	T	95.00%	3.87	0.453	0	0	1	0	2	1,952.90	586	603	TRUE	
SNU216LR_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	7	7	7	0.04%	7.45%	GNFSPLELDNVLLK	K	N	94.00%	2.56	0.208	0	1	0	0	2	1,638.81	187	200	TRUE	
SNU216LR_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	7	7	7	0.04%	7.45%	HLNSSQPSGFGPANSLEDVVR	K	L	95.00%	5.19	0.493	0	0	1	0	2	2,291.05	485	505	TRUE	
SNU216LR_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	7	7	7	0.04%	7.45%	SLFFSSKEDIHTSESESK	K	I	95.00%	3.58	0.293	0	0	1	0	2	2,137.93	925	942	TRUE	
SNU216LR_PC2_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AHAWPSPYK	R	D	95.00%	2.19	0.432	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216LR_PC2_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AHAWPSPYKDYEVK	R	K	95.00%	3.49	0.393	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC2_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AHAWPSPYKDYEVKK	R	E	95.00%	3.22	0.238	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216LR_PC2_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	4	5	5	0.03%	14.00%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	95.00%	4.61	0.304	0	0	0	1	2	4,125.84	299	333	TRUE	
SNU216LR_PC2_02	Lamin-B2	IPI00009771	69,949.40	100.00%	1	1	1	0.01%	1.94%	AGGPATPLSPTR	R	L	94.90%	2.64	0.155	0	1	0	0	2	1,204.57	29	40	TRUE	
SNU216LR_PC2_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	98.60%	1	1	1	0.01%	1.05%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	4.13	0.277	0	0	1	0	2	2,433.10	784	805	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	APEGDDFLSLHAESDGEGALQVDLGEPAPA	R	W	95.00%	4.2	0.372	0	0	1	0	2	3,781.69	440	476	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	4.89	0.467	0	0	1	0	2	2,434.09	531	554	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	EVLYDSEGLSGEER	R	G	89.10%	2.07	0.204	0	1	0	0	2	1,742.66	729	742	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	4.67	0.403	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	GPSPAPASSPKR	R	E	95.00%	2.66	0.271	0	1	0	0	2	1,231.58	717	728	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.68	0.459	0	1	1	0	2	2,127.97	496	516	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	SASPPPATSSSSSSR	R	R	95.00%	2.55	0.391	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	SPFLKPDER	R	A	95.00%	2.01	0.278	0	1	0	0	2	1,168.54	874	882	TRUE	
SNU216LR_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.06%	11.80%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	2.99	0.344	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216LR_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	6	6	0.04%	9.42%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	5.89	0.478	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216LR_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	6	6	0.04%	9.42%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.84	0.496	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216LR_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	6	6	0.04%	9.42%	GLWSTDSAEEDKETK	R	R	95.00%	2.8	0.229	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216LR_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	6	6	0.04%	9.42%	GLWSTDSAEEDKETKR	R	N	95.00%	3.03	0.262	0	1	1	0	2	1,931.84	397	412	TRUE	
SNU216LR_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	6	6	0.04%	9.42%	SKPDLESSLESLVFDLR	K	T	95.00%	2.88	0.282	0	0	1	0	2	2,014.97	182	198	TRUE	
SNU216LR_PC2_02	Isoform B of Ras-GTPase-activating protein-bindir	IPI00179890	50,816.80	100.00%	1	2	4	0.03%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.22	0.525	0	1	3	0	2	2,205.10	225	244	TRUE	
SNU216LR_PC2_02	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.90%	1	1	1	0.01%	2.57%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.62	0.403	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.80%	2	3	3	0.02%	1.21%	AVIVSSPK	K	A	95.00%	2.1	0.296	0	1	0	0	2	880.454	1396	1403	TRUE	
SNU216LR_PC2_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.80%	2	3	3	0.02%	1.21%	HLEAADKGHSPAQKPK	K	T	95.00%	3.48	0.499	0	0	1	1	2	1,793.87	596	611	TRUE	
SNU216LR_PC2_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	KTPLALAGSPTPK	K	N	95.00%	2.69	0.285	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216LR_PC2_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	NPEDKSPQLSLSPRPASPK	K	A	95.00%	3.39	0.181	0	0	1	0	2	2,208.01	919	937	TRUE	
SNU216LR_PC2_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	SPQLSLSPRPASPK	K	A	95.00%	2.55	0.296	0	1	0	0	2	1,624.75	924	937	TRUE	
SNU216LR_PC2_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	4	4	4	0.03%	4.37%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	4.95	0.396	0	0	1	0	2	2,772.23	1181	1204	TRUE	
SNU216LR_PC2_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	4	4	4	0.03%	4.37%	SATSSSPGSPLHSLETSL	K	-	95.00%	2.59	0.214	0	2	0	0	2	1,837.82	1232	1249	TRUE	
SNU216LR_PC2_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	4	4	4	0.03%	4.37%	SSIHNFMTHPEFR	R	I	95.00%	2.93	0.269	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216LR_PC2_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	99.80%	2	2	2	0.01%	2.70%	DSEDVSERDSDKEMATK	R	S	95.00%	2.59	0.335	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216LR_PC2_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	99.80%	2	2	2	0.01%	2.70%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	4.55	0.398	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	4.88%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	4.01	0.268	0	0	0	1	2	2,851.43	615	639	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	4.88%	RASQEANLLTLAQK	R	A	95.00%	3.17	0.225	0	1	0	0	2	1,622.83	459	472	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	4.88%	RESPSEERLEPK	R	R	90.40%	2.08	0.213	0	1	0	0	2	1,536.71	921	932	TRUE	
SNU216LR_PC2_02	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.50%	2	3	3	0.02%	1.32%	VASPSQGQVGSSSPK	R	R	90.20%	2.61	0.226	0	1	0	0	2	1,495.68	325	339	TRUE	
SNU216LR_PC2_02	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.50%	2	3	3	0.02%	1.32%	VASPSQGQVGSSSPKR	R	S	95.00%	3.7	0.271	0	1	1	0	2	1,651.78	325	340	TRUE	
SNU216LR_PC2_02	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	99.80%	2	2	2	0.01%	6.87%	NFTKPQDGDVIAPLITPQKK	R	E	95.00%	3.06	0.325	0	0	1	0	2	2,290.18	577	596	TRUE	
SNU216LR_PC2_02	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	99.80%	2	2	2	0.01%	6.87%	TPSNTPSAEADWSPGLELHPDYK	R	T	95.00%	4.12	0.315	0	0	1	0	2	2,592.13	21	43	TRUE	
SNU216LR_PC2_02	hypothetical protein LOC25923	IPI00550523	60,543.20	99.20%	1	1	1	0.01%	4.25%	MLSPQRVAAAASRGADDAMESSK	-	P	95.00%	3.3	0.164	0	1	0	0	2	2,509.06	1	23	TRUE	
SNU216LR_PC2_02	Protein AF-17	IPI00023466,IPI00759835	112,076.80	100.00%	3	3	3	0.02%	4.57%	KRPESPPSILTPPVVPTADK	K	V	95.00%	3.38	0.238	0	0	1	0	2	2,209.16	254	273	TRUE	
SNU216LR_PC2_02	Protein AF-17	IPI00023466,IPI00759835	112,076.80	100.00%	3	3	3	0.02%	4.57%	LEQPEEDKYSKPTAPAPSAPPSPSAPEPPK	K	A	94.90%	3.03	0.186	0	0	0	1	2	3,222.52	361	390	TRUE	
SNU216LR_PC2_02	Protein AF-17	IPI00023466,IPI00759835	112,076.80	100.00%	3	3	3	0.02%	4.57%	RPESPPSILTPPVVPTADK	K	V	95.00%	2.54	0.248	0	1	0	0	2	2,081.07	255	273	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.98%	LPKSPPYTAFLGNLPYDVTEESIKEFFR	R	G	95.00%	5.97	0.442	0	0	1	0	2	3,338.64	90	117	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.98%	SPPYTAFLGNLPYDVTEESIKEFFR	K	G	95.00%	5.37	0.424	0	0	1	0	2	3,000.41	93	117	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.98%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.65	0.48	0	2	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	6	0.04%	9.98%	TGSESSQTGTSTTSSR	R	N	84.60%	3.42	0.0259	0	2	0	0	2	1,653.66	420	435	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	ASAVSELSPR	R	E	82.40%	1.66	0.237	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	ASESSKPWPDATYGTGSASR	K	A	85.00%	3.58	0.0121	0	1	0	0	2	2,134.91	216	235	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	EKGSFSDTGLGDGK	K	M	95.00%	3.13	0.332	0	1	0	0	2	1,477.62	374	387	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	ERSPALKSPLQSVVVR	R	R	95.00%	3.51	0.384	0	1	2	0	2	1,845.99	246	261	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	FSGEEGEIEDDESGTENR	K	E	95.00%	3.45	0.384	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	FSGEEGEIEDDESGTENREEK	K	D	95.00%	4.12	0.414	0	1	0	0	2	2,465.95	927	947	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	FSGEEGEIEDDESGTENREEKDNIQPTTE	K	-	95.00%	4.99	0.404	0	0	1	0	2	3,364.35	927	955	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	HGLAHDEMKSPR	K	E	95.00%	2.65	0.291	0	0	1	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	HGLAHDEMKSPREPGYK	K	A	95.00%	3.01	0.227	0	0	1	1	2	2,031.91	689	705	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	KHGLAHDEMKSPR	R	E	95.00%	3.19	0.472	0	1	0	0	2	1,585.73	688	700	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	NREEEWDPEYTPK	R	S	95.00%	2.7	0.244	0	1	0	0	2	1,772.72	864	876	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	PSPPLSSTSQMGSTLPSGAGYQSGTHQGQI	K	S	95.00%	4.66	0.291	0	0	0	1	2	4,252.92	273	314	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	RIDISPSTFR	R	K	95.00%	2.14	0.198	0	0	1	0	2	1,271.61	678	687	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	SPALKSPLQSVVVR	R	R	95.00%	2.66	0.451	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	SPSELFAQHIVTIVHHVK	R	E	95.00%	2.95	0.41	0	0	2	0	2	2,122.08	622	639	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.36	0.277	0	2	1	0	2	2,011.84	315	333	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	3.3	0.291	0	0	1	0	2	2,797.03	922	944	TRUE	
SNU216LR_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	18	22	25	0.16%	22.40%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.25	0.454	0	0	1	1	2	3,103.24	922	947	TRUE	
SNU216LR_PC2_02	Isoform 1 of Cullin-4B	IPI00179057,IPI00480142,IP	102,760.40	100.00%	1	1	1	0.01%	1.79%	SATDGNTSTTPPTSAK	R	K	95.00%	3.75	0.0474	0	1	0	0	2	1,615.68	27	42	TRUE	
SNU216LR_PC2_02	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	99.50%	2	2	2	0.01%	3.12%	QLSLEGSGLGVEDLKDNTPSGK	R	S	95.00%	3.76	0.285	0	0	1	0	2	2,324.10	750	771	TRUE	
SNU216LR_PC2_02	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	99.50%	2	2	2	0.01%	3.12%	SGSLDDSFSDFQELPASSK	K	T	89.80%	2.55	0.16	0	1	0	0	2	2,096.87	467	485	TRUE	
SNU216LR_PC2_02	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	99.80%	2	2	2	0.01%	6.70%	HGSGADSDYENTQSGDPLLGLEGKR	R	F	95.00%	4.21	0.421	0	0	1	0	2	2,683.16	590	614	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	99.80%	2	2	2	0.01%	6.70%	SQSDLDDQHDYDSVASDEDTDQEPLR	R	S	95.00%	4.91	0.136	0	0	1	0	2	3,060.19	373	398	TRUE	
SNU216LR_PC2_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	5	5	0.03%	11.40%	DALGDSLQVPVSPSSTTSSR	R	C	92.50%	3.22	0.0778	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC2_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	5	5	0.03%	11.40%	DGAEQQGPEATVEEAEAAAFGSEKPQSMFI	R	R	95.00%	6.83	0.438	0	0	1	0	2	4,396.94	827	867	TRUE	
SNU216LR_PC2_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	5	5	0.03%	11.40%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	4.53	0.433	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216LR_PC2_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	5	5	0.03%	11.40%	QVLQSTQSPR	R	T	95.00%	2.6	0.296	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC2_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	5	5	0.03%	11.40%	VKPPPSPTTEGPSLQPDLAPEEAAGTQRPK	K	N	95.00%	3.7	0.258	0	0	0	1	2	3,175.57	1004	1033	TRUE	
SNU216LR_PC2_02	Proline and glutamic acid rich nuclear protein isof	IPI00178047	110,224.90	99.80%	2	2	3	0.02%	4.22%	AGSNEDPILAPSGTPPPTIPPDETFGGR	R	V	95.00%	3.42	0.241	0	0	1	0	2	2,870.33	644	671	TRUE	
SNU216LR_PC2_02	Proline and glutamic acid rich nuclear protein isof	IPI00178047	110,224.90	99.80%	2	2	3	0.02%	4.22%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.44	0.342	0	2	0	0	2	1,606.75	478	493	TRUE	
SNU216LR_PC2_02	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	99.80%	2	2	2	0.01%	4.92%	IQQFDDGGSDEEDIWEEK	R	H	95.00%	3.99	0.343	0	1	0	0	2	2,219.87	529	546	TRUE	
SNU216LR_PC2_02	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	99.80%	2	2	2	0.01%	4.92%	SSSGSTDSEESTDSEEEDGAK	R	Q	95.00%	4.34	0.0916	0	1	0	0	2	2,213.77	558	578	TRUE	
SNU216LR_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.51%	KQSLPATSIPTPASFK	R	F	95.00%	3.1	0.443	0	1	0	0	2	1,752.89	1507	1522	TRUE	
SNU216LR_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.51%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.45	0.385	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216LR_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.51%	SALSPSKSPAK	K	L	95.00%	2.46	0.212	0	1	0	0	2	1,152.57	2273	2283	TRUE	
SNU216LR_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.51%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	4.27	0.41	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216LR_PC2_02	Isoform 1 of Mitogen-activated protein kinase kir	IPI00329638	91,285.20	99.80%	2	2	2	0.01%	5.24%	SQSNPILGSPFFSHFDGQDSYAAAVR	R	R	95.00%	6.15	0.483	0	0	1	0	2	2,878.28	592	617	TRUE	
SNU216LR_PC2_02	Isoform 1 of Mitogen-activated protein kinase kir	IPI00329638	91,285.20	99.80%	2	2	2	0.01%	5.24%	VSQSALNPHQSPDFKR	R	S	95.00%	3.51	0.31	0	0	1	0	2	1,890.89	718	733	TRUE	
SNU216LR_PC2_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	7.32	0.611	0	0	1	1	2	3,923.85	419	453	TRUE	
SNU216LR_PC2_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.24	0.394	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216LR_PC2_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	95.00%	3.92	0.306	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	EISDDEAEEEK	K	G	95.00%	3.38	0.461	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	EISDDEAEEEKGEK	K	E	95.00%	3.55	0.443	0	1	1	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	EKEISDDEAEEEK	R	G	95.00%	3.15	0.42	0	1	1	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	3.82	0.414	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	EREKEISDDEAEEEK	K	G	95.00%	2.62	0.262	0	1	0	0	2	1,915.78	219	233	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	2.7	0.408	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.76	0.474	0	4	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	21	0.13%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.42	0.465	0	3	4	0	2	2,025.76	249	265	TRUE	
SNU216LR_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	SPDEATAADQESEDDLSASR	K	T	95.00%	6.17	0.601	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	SSSPAPEFLASSPPDNK	K	S	95.00%	2.93	0.315	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216LR_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	SSSPAPEFLASSPPDNKSPDEATAADQESED	K	T	95.00%	6.2	0.128	0	0	1	0	2	3,885.65	861	897	TRUE	
SNU216LR_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	VSAGEPGSHPSPAPR	K	R	95.00%	3.65	0.449	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216LR_PC2_02	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	3.59	0.379	0	0	2	0	2	3,089.34	651	677	TRUE	
SNU216LR_PC2_02	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	DGTSPEEEIEIER	K	Q	95.00%	2.47	0.346	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216LR_PC2_02	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	FKIDSNISPKK	K	D	94.20%	2.23	0.182	0	1	0	0	2	1,356.69	146	156	TRUE	
SNU216LR_PC2_02	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	4	5	0.03%	7.64%	TLDSGTSEIVKSPR	R	I	95.00%	3.22	0.278	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	100.00%	2	2	2	0.01%	5.08%	SMPVLGSVSSVTK	K	T	91.80%	2.42	0.155	0	1	0	0	2	1,371.66	506	518	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	100.00%	2	2	2	0.01%	5.08%	VTAEADSSSPTGILATSESK	K	S	95.00%	4.3	0.0602	0	1	0	0	2	2,030.92	486	505	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	99.80%	2	2	2	0.01%	2.73%	EYDSGDTDEIIAMK	R	K	95.00%	2.57	0.391	0	1	0	0	2	1,746.62	249	262	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	99.80%	2	2	2	0.01%	2.73%	LQDSSSEEEDVTEETDHR	R	N	95.00%	3.6	0.55	0	1	0	0	2	2,345.77	953	970	TRUE	
SNU216LR_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.06%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.35	0.413	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.06%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.45	0.389	0	3	2	0	2	2,268.82	552	570	TRUE	
SNU216LR_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.06%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.54	0.416	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216LR_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.06%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.24	0.433	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC2_02	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	2	2	2	0.01%	7.23%	KEPDDSRDEDEDEDESSEEDSEDEEPPPK	K	R	95.00%	4.39	0.575	0	0	1	0	2	3,618.19	426	454	TRUE	
SNU216LR_PC2_02	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	2	2	2	0.01%	7.23%	QTPMASSPRPK	K	M	95.00%	2.25	0.265	0	1	0	0	2	1,279.59	150	160	TRUE	
SNU216LR_PC2_02	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	ATLDEEDLVDSLSEGDAYPNGLQVNFHSPR	R	S	95.00%	4.31	0.414	0	0	1	0	2	3,368.50	21	50	TRUE	
SNU216LR_PC2_02	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	RATLDEEDLVDSLSEGDAYPNGLQVNFHSP	K	S	95.00%	7.95	0.538	0	0	1	1	2	3,524.60	20	50	TRUE	
SNU216LR_PC2_02	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	2	0.01%	3.55%	SGSSSPDSEITELK	R	F	95.00%	2.19	0.298	0	1	0	0	2	1,516.64	571	584	TRUE	
SNU216LR_PC2_02	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	2	0.01%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	95.00%	4.66	0.0432	0	1	0	0	2	2,327.01	571	591	TRUE	
SNU216LR_PC2_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.30%	2	3	3	0.02%	6.34%	GDSLKEPTSIAESSR	R	H	95.00%	2.85	0.226	0	1	1	0	2	1,656.75	325	339	TRUE	
SNU216LR_PC2_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.30%	2	3	3	0.02%	6.34%	SKGSLEITESQSADAEPPPPPKPDLSR	K	Y	86.60%	4.29	0.0735	0	0	1	0	2	2,913.39	243	269	TRUE	
SNU216LR_PC2_02	Isoform Beta of Striatin-3	IPI00011461	87,661.80	99.80%	1	1	1	0.01%	1.62%	NLEQILNGGESPK	K	Q	95.00%	2.98	0.318	0	1	0	0	2	1,478.69	219	231	TRUE	
SNU216LR_PC2_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	99.80%	2	2	2	0.01%	1.48%	KDSSSEVFSDAAK	R	E	95.00%	3.23	0.43	0	1	0	0	2	1,450.61	921	933	TRUE	
SNU216LR_PC2_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	99.80%	2	2	2	0.01%	1.48%	SKSYDEGLDDYREDAK	R	L	95.00%	2.99	0.293	0	0	1	0	2	1,970.80	878	893	TRUE	
SNU216LR_PC2_02	triple functional domain	IPI00657953	346,902.60	99.10%	2	2	2	0.01%	1.45%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	3.04	0.317	0	1	0	0	2	1,983.92	2451	2470	TRUE	
SNU216LR_PC2_02	triple functional domain	IPI00657953	346,902.60	99.10%	2	2	2	0.01%	1.45%	LLVRPTSSETPSAAELVSAIEELVK	R	S	82.20%	5.8	0.0074	0	0	1	0	2	2,719.42	1894	1918	TRUE	
SNU216LR_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	7	8	0.05%	6.77%	ESSTSEGADQKMSSPEDDSDTKR	K	L	81.60%	3.56	0.0037	0	1	0	0	2	2,646.98	371	393	TRUE	
SNU216LR_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	7	8	0.05%	6.77%	MSSPEDDSDTKR	K	L	95.00%	2.52	0.287	0	2	1	0	2	1,447.54	382	393	TRUE	
SNU216LR_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	7	8	0.05%	6.77%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	95.00%	4.36	0.275	0	0	1	0	2	2,928.28	227	252	TRUE	IPI00005648
SNU216LR_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	7	8	0.05%	6.77%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.61	0.428	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216LR_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	7	8	0.05%	6.77%	SVVSFDKVKEPR	R	K	95.00%	2.41	0.329	0	1	1	0	2	1,470.74	601	612	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein XP_292820	IPI00247674	55,882.10	99.70%	2	2	2	0.01%	8.33%	ASLPAGLVGTPPESPSEPREDVLGFLPGPR	R	Q	93.10%	2.78	0.199	0	0	1	0	2	3,202.52	202	231	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein XP_292820	IPI00247674	55,882.10	99.70%	2	2	2	0.01%	8.33%	ERGDESPLGAEGAK	R	T	95.00%	2.13	0.272	0	1	0	0	2	1,495.64	430	443	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	4	0.03%	2.97%	ENIKPNETSPSFSK	K	A	95.00%	3.13	0.35	0	1	0	0	2	1,657.75	763	776	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	4	0.03%	2.97%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	2.96	0.27	0	0	2	0	2	2,534.10	755	776	TRUE	
SNU216LR_PC2_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	4	0.03%	2.97%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.86	0.573	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216LR_PC2_02	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	100.00%	2	2	2	0.01%	4.06%	APPAPLAASEVTNSNSAER	K	R	95.00%	4.14	0.521	0	1	0	0	2	1,961.90	172	190	TRUE	
SNU216LR_PC2_02	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	100.00%	2	2	2	0.01%	4.06%	ENYSDSEEEDDDDVASSR	R	Q	95.00%	4.07	0.602	0	1	0	0	2	2,141.73	256	273	TRUE	
SNU216LR_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	6	6	0.04%	12.10%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.42	0.389	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	6	6	0.04%	12.10%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.17	0.376	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	6	6	0.04%	12.10%	KRESESESDETPPAAPQLIK	R	K	95.00%	2.93	0.201	0	1	1	0	2	2,452.01	447	466	TRUE	
SNU216LR_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	6	6	0.04%	12.10%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.23	0.336	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC2_02	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	5	10	0.06%	11.60%	AAPEASSPPASPLQHLLPGK	K	A	95.00%	3.66	0.381	0	2	1	0	2	2,048.02	686	705	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	5	10	0.06%	11.60%	GLLAQGLRPESPPPAGPLLNGAPAGESPQPI	R	A	95.00%	6.6	0.514	0	0	4	2	2	3,176.55	655	685	TRUE	
SNU216LR_PC2_02	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	5	10	0.06%	11.60%	QVVSVVQDEEVGLPFEASPESPPPASPDGV	K	G	95.00%	5.7	0.546	0	0	1	0	2	3,641.73	621	654	TRUE	
SNU216LR_PC2_02	Importin beta-3	IPI00329200	126,524.70	100.00%	1	1	1	0.01%	3.47%	TASIKPEVALLDTQDMENMSDDDGWEFVN	K	T	95.00%	5.05	0.533	0	0	1	0	2	4,423.96	651	689	TRUE	
SNU216LR_PC2_02	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	98.70%	1	1	1	0.01%	3.05%	GGSPQMDDIKVFQNEVLGTLQR	R	G	95.00%	2.75	0.316	0	0	1	0	2	2,512.19	542	563	TRUE	
SNU216LR_PC2_02	similar to RIKEN cDNA 5730467H21	IPI00234154	85,743.20	99.80%	2	2	2	0.01%	2.40%	GKPIFPVYPLVGSSSPTR	R	K	95.00%	3.48	0.329	0	0	1	0	2	1,982.01	728	745	TRUE	
SNU216LR_PC2_02	similar to RIKEN cDNA 5730467H21	IPI00234154	85,743.20	99.80%	2	2	2	0.01%	2.40%	GKPIFPVYPLVGSSSPTRK	R	A	95.00%	3.66	0.417	0	0	1	0	2	2,110.11	728	746	TRUE	
SNU216LR_PC2_02	Desmoglein 2, preproprotein	IPI00028931	122,294.40	99.20%	1	1	1	0.01%	1.52%	VVPSFLPVDQGGSLVGR	K	N	83.90%	2.25	0.163	0	1	0	0	2	1,806.92	668	684	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 2	IPI00015973	112,587.80	99.80%	2	3	3	0.02%	2.89%	EISPGSGPGEIR	K	K	95.00%	2.01	0.288	0	1	0	0	2	1,278.57	713	724	TRUE	
SNU216LR_PC2_02	Band 4.1-like protein 2	IPI00015973	112,587.80	99.80%	2	3	3	0.02%	2.89%	EVRSPTKAPHLQLIEGK	R	K	95.00%	3.28	0.401	0	0	1	1	2	1,983.04	595	611	TRUE	
SNU216LR_PC2_02	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	5.55	0.52	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216LR_PC2_02	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	GREEHYEEEEEEEEDGAAVAEK	K	S	95.00%	4.04	0.441	0	0	1	0	2	2,644.02	668	689	TRUE	
SNU216LR_PC2_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	6	8	0.05%	9.11%	DIEISTEEEKDTGDLK	R	D	95.00%	2.9	0.228	0	1	0	0	2	1,981.79	333	348	TRUE	
SNU216LR_PC2_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	6	8	0.05%	9.11%	DIEISTEEEKDTGDLKDSSLLK	R	T	95.00%	3.49	0.467	0	1	1	0	2	2,625.15	333	354	TRUE	
SNU216LR_PC2_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	6	8	0.05%	9.11%	KRSSSEDAESLAPR	R	S	95.00%	3.25	0.326	0	0	2	0	2	1,612.73	296	309	TRUE	
SNU216LR_PC2_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	6	8	0.05%	9.11%	SRPTSEGSDIESTEPQK	R	Q	95.00%	3.59	0.153	0	2	0	0	2	1,927.83	254	270	TRUE	
SNU216LR_PC2_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	6	8	0.05%	9.11%	SSSEDAESLAPR	R	S	95.00%	3.02	0.342	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216LR_PC2_02	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	1	1	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	6.24	0.519	0	0	1	0	2	3,106.31	797	824	TRUE	
SNU216LR_PC2_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	3	3	3	0.02%	3.40%	LVEPHSPSPSSK	R	F	95.00%	2.41	0.382	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216LR_PC2_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	3	3	3	0.02%	3.40%	RGSQNSSEHRPPASSTSEDVK	R	A	95.00%	3.41	0.243	0	0	0	1	2	2,336.03	411	431	TRUE	
SNU216LR_PC2_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	3	3	3	0.02%	3.40%	TNSMGSATGPLPGTK	R	V	95.00%	2.77	0.413	0	1	0	0	2	1,498.66	465	479	TRUE	
SNU216LR_PC2_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	3	3	0.02%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	2.44	0.301	0	1	1	0	2	2,154.05	81	100	TRUE	
SNU216LR_PC2_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	3	3	0.02%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.58	0.316	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	AEDGATPSPSNETPK	K	K	95.00%	3.89	0.47	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	AEDGATPSPSNETPKK	K	K	95.00%	3.74	0.439	0	2	1	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	AEDGATPSPSNETPKKK	K	K	95.00%	3.54	0.378	0	1	0	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	94.60%	5.35	0.0532	0	0	1	0	2	2,995.27	105	136	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	4.8	0.342	0	0	1	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.68	0.353	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	4.56	0.273	0	0	0	1	2	2,899.33	11	39	TRUE	
SNU216LR_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.27	0.501	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC2_02	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	100.00%	2	3	3	0.02%	4.89%	APVSSTESVIQSNTPTPPPSQPLNETAEEESR	K	I	88.30%	6	0.0122	0	0	1	0	2	3,539.55	884	915	TRUE	
SNU216LR_PC2_02	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	100.00%	2	3	3	0.02%	4.89%	ASPSPQPSSQPLQIHR	R	Q	95.00%	3.69	0.454	0	1	1	0	2	1,809.86	143	158	TRUE	
SNU216LR_PC2_02	Isoform C of Lethal(2) giant larvae protein homolo	IPI00465050,IPI00641801	112,927.90	99.80%	2	3	3	0.02%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	3.12	0.239	0	0	1	0	2	2,449.02	958	978	TRUE	
SNU216LR_PC2_02	Isoform C of Lethal(2) giant larvae protein homolo	IPI00465050,IPI00641801	112,927.90	99.80%	2	3	3	0.02%	2.06%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	3.23	0.334	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	100.00%	3	4	4	0.03%	6.81%	AIPTVNHSGTFSPQAPVPTTVPVVDVR	R	I	95.00%	3.44	0.201	0	0	1	0	2	2,866.45	63	89	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	100.00%	3	4	4	0.03%	6.81%	ASSLGEIDESSELR	R	V	95.00%	2.91	0.436	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	100.00%	3	4	4	0.03%	6.81%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.09	0.481	0	0	1	1	2	3,054.38	478	503	TRUE	
SNU216LR_PC2_02	GYS1 protein	IPI00157144,IPI00303868	83,787.10	99.80%	2	3	5	0.03%	6.54%	HSSPHQSEDEEDPR	R	N	95.00%	3.28	0.496	0	2	2	0	2	1,809.61	651	664	TRUE	
SNU216LR_PC2_02	GYS1 protein	IPI00157144,IPI00303868	83,787.10	99.80%	2	3	5	0.03%	6.54%	RNSVDTATSSSLSTPSEPLSPTSSLGEERN	K	-	90.40%	5.4	0.0376	0	0	1	0	2	3,186.44	708	737	TRUE	
SNU216LR_PC2_02	Isoform 1 of DNA	IPI00031519	189,570.80	99.80%	2	2	2	0.01%	2.15%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.79	0.502	0	1	0	0	2	2,224.85	760	778	TRUE	
SNU216LR_PC2_02	Isoform 1 of DNA	IPI00031519	189,570.80	99.80%	2	2	2	0.01%	2.15%	VGMADANSPPKPLSKPR	K	T	95.00%	3.77	0.126	0	0	1	0	2	1,844.91	182	198	TRUE	
SNU216LR_PC2_02	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NDLQDTEISPR	K	Q	95.00%	2.49	0.228	0	1	0	0	2	1,367.58	463	473	TRUE	
SNU216LR_PC2_02	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAK	R	S	95.00%	2.91	0.37	0	1	0	0	2	1,547.76	90	102	TRUE	
SNU216LR_PC2_02	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAKSPASSSSK	R	N	95.00%	3.16	0.271	0	0	1	0	2	2,359.07	90	110	TRUE	
SNU216LR_PC2_02	Isoform 1 of Serine/threonine-protein kinase TAO	IPI00002232	116,072.10	99.70%	2	2	2	0.01%	3.20%	AGSLKDPEIAELFFKEDPEK	R	L	95.00%	4.4	0.303	0	0	1	0	2	2,343.12	7	26	TRUE	
SNU216LR_PC2_02	Isoform 1 of Serine/threonine-protein kinase TAO	IPI00002232	116,072.10	99.70%	2	2	2	0.01%	3.20%	ASDPQSPPQVSR	R	H	93.60%	1.94	0.236	0	1	0	0	2	1,348.59	416	427	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	21.90%	AGLGSPERPPK	R	T	95.00%	2.24	0.217	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	21.90%	AGLGSPERPPKTSPGSPR	R	L	86.40%	2.38	0.211	0	1	0	0	2	2,030.85	54	71	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	21.90%	LGGLRPESPESLTSVSR	R	T	95.00%	3.54	0.307	0	1	1	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	21.90%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.75	0.461	0	1	0	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	21.90%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	3.33	0.203	0	0	1	0	2	2,681.14	95	115	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	2.41	0.342	0	1	0	0	2	1,764.73	414	426	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	RSQSIEQESQEK	R	Q	95.00%	3.23	0.188	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	SQSIEQESQEK	R	Q	95.00%	2.14	0.366	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	ARPSSPSTSWHR	K	P	95.00%	2.29	0.232	0	0	1	0	2	1,448.64	465	476	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	EANANGSSPEPVK	K	A	95.00%	3.11	0.111	0	1	0	0	2	1,379.58	735	747	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	3.04	0.449	0	3	1	0	2	2,233.05	538	560	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	GPTPPAMGPR	R	D	95.00%	1.89	0.404	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	LSASTASELSPK	R	S	95.00%	2.39	0.263	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	4.29	0	0	1	0	0	2	2,069.89	111	129	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	RSSQPSPTAVPASDSPPTKQEVK	R	K	91.80%	5.36	0.0371	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	8	9	11	0.07%	13.70%	TPETLLPFAEAEAFLKK	R	A	84.20%	2.25	0.182	0	1	0	0	2	1,985.00	813	829	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	8	0.05%	7.07%	DHSPTPSVFNSDEER	R	Y	95.00%	3.57	0.371	0	2	1	0	2	1,876.68	490	504	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	8	0.05%	7.07%	ERDHSPTPSVFNSDEER	R	Y	95.00%	2.51	0.28	0	2	2	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC2_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	8	0.05%	7.07%	PEEENASANPPSGIEDETAENGVPK	R	P	95.00%	3.37	0.201	0	0	0	1	2	2,661.12	51	75	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7.01	0.637	0	0	1	0	2	3,607.53	769	801	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.42	0.493	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.49	0.298	0	0	1	0	2	2,218.96	5	25	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	EIPSATQSPISKK	K	R	95.00%	2.31	0.29	0	1	0	0	2	1,465.73	1156	1168	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	KGVLGKSPLSALAR	K	K	95.00%	2.62	0.331	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.67	0.324	0	0	1	0	2	2,300.10	1254	1275	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.51	0.364	0	1	1	0	2	2,172.01	1255	1275	TRUE	
SNU216LR_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	9	0.06%	8.96%	SPAPGAPTRSPSTPAK	K	S	95.00%	3.38	0.456	0	1	0	0	2	1,601.77	1232	1247	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	3	3	0.02%	2.06%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	4.52	0.494	0	0	1	0	2	2,461.21	1678	1699	TRUE	
SNU216LR_PC2_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	3	3	0.02%	2.06%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.32	0.321	0	0	1	0	2	3,457.49	2117	2144	TRUE	
SNU216LR_PC2_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	3	3	0.02%	2.06%	ESDQTLAALLSPK	K	E	95.00%	2.52	0.255	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216LR_PC2_02	Leukemia virus receptor 2	IPI00009504	70,393.40	98.80%	2	2	2	0.01%	3.68%	EGALSRVSDESLSK	K	V	90.80%	2.5	0.147	0	1	0	0	2	1,637.68	249	262	TRUE	
SNU216LR_PC2_02	Leukemia virus receptor 2	IPI00009504	70,393.40	98.80%	2	2	2	0.01%	3.68%	EGALSRVSDESLSKVQEAESPVFK	K	E	86.70%	3.75	0.0972	0	0	1	0	2	2,752.25	249	272	TRUE	
SNU216LR_PC2_02	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	KADTTTPTPTAILAPGSPASPPGSLEPK	R	A	95.00%	4.85	0.453	0	0	2	0	2	2,782.39	282	309	TRUE	
SNU216LR_PC2_02	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEK	K	R	95.00%	4.72	0.297	0	0	1	0	2	3,008.24	622	647	TRUE	
SNU216LR_PC2_02	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEKR	K	Q	95.00%	4.2	0.234	0	0	0	1	2	3,164.34	622	648	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	5	5	0.03%	28.00%	GHTASESDEQQWPEEK	R	R	95.00%	3.43	0.483	0	1	0	0	2	1,937.76	23	38	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	5	5	0.03%	28.00%	GHTASESDEQQWPEEKR	R	L	95.00%	3.08	0.202	0	0	1	0	2	2,093.86	23	39	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	5	5	0.03%	28.00%	LKEDILENEDEQNSPPK	R	K	95.00%	4.6	0.276	0	1	0	0	2	2,077.93	40	56	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	5	5	0.03%	28.00%	LKEDILENEDEQNSPPKK	R	G	95.00%	4.21	0.298	0	1	0	0	2	2,206.03	40	57	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	5	5	0.03%	28.00%	RLKEDILENEDEQNSPPK	K	K	95.00%	2.81	0.274	0	0	1	0	2	2,234.03	39	56	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	4	4	0.03%	5.96%	GPQGPGGGGINVQEILTSIMGSPNSHPSEEI	K	I	95.00%	5.45	0.0716	0	0	0	1	2	4,213.98	570	609	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	4	4	0.03%	5.96%	KVLSPTAAKPSPFEGK	K	T	95.00%	3.7	0.473	0	1	1	0	2	1,736.90	310	325	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	4	4	0.03%	5.96%	VLSPTAAKPSPFEGK	K	T	95.00%	2.79	0.425	0	1	0	0	2	1,608.80	311	325	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein-related protein 10	IPI00032971	83,970.50	99.80%	2	2	2	0.01%	2.88%	HLSVGAPGVVTITHHK	R	S	95.00%	3	0.356	0	0	1	0	2	1,732.89	207	222	TRUE	
SNU216LR_PC2_02	Oxysterol-binding protein-related protein 10	IPI00032971	83,970.50	99.80%	2	2	2	0.01%	2.88%	HLSVGAPGVVTITHHKSPAAAR	R	R	95.00%	3.58	0.175	0	0	0	1	2	2,286.19	207	228	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	DLDEEGSEKELHENVLDK	K	E	95.00%	3.88	0.442	0	1	1	0	2	2,178.94	573	590	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	5.05	0.451	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	ELHENVLDKELEENDSENSEFEDDGSEK	K	V	95.00%	5.85	0.521	0	0	2	0	2	3,439.33	582	609	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	ESEDDLNKESEEEVGPTK	K	E	95.00%	3.7	0.369	0	1	0	0	2	2,114.87	520	537	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	LFDEEEDSSEKLFDDSDER	K	G	95.00%	4.11	0.449	0	1	1	0	2	2,384.93	706	724	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	5.49	0.597	0	1	0	0	2	2,600.01	696	716	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	LFEDDDSNEKLFDEEEDSSEKLFDDSDER	K	G	95.00%	3.33	0.301	0	0	2	0	2	3,657.38	696	724	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	LFEESDDKEDEDADGK	K	E	95.00%	3.63	0.231	0	1	0	0	2	1,921.72	672	687	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.44	0.508	0	1	2	0	2	2,837.11	672	695	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.49	0.402	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.96	0.402	0	0	1	1	2	2,956.18	637	661	TRUE	
SNU216LR_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	12	18	22	0.14%	21.20%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.71	0.379	0	0	2	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC2_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	2.96	0.259	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216LR_PC2_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	3.65	0.461	0	0	1	0	2	3,209.61	696	726	TRUE	
SNU216LR_PC2_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	92.80%	6.18	0.0186	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216LR_PC2_02	Serine/threonine-protein kinase SRPK2	IPI00333420,IPI00396412	79,030.50	99.80%	1	1	2	0.01%	1.74%	TVSASSTGDLPK	R	A	95.00%	2.42	0.337	0	2	0	0	2	1,242.56	503	514	TRUE	
SNU216LR_PC2_02	PDCD6IP protein	IPI00246058	96,820.50	100.00%	1	1	1	0.01%	3.44%	EPSAPSIPTPAYQSSPAGGHAPTPPTPAPR	R	T	95.00%	3.51	0.261	0	0	1	0	2	3,016.42	721	750	TRUE	
SNU216LR_PC2_02	Probable ATP-dependent RNA helicase DDX10	IPI00297900	100,891.30	100.00%	2	2	2	0.01%	4.11%	APSLTNDEVEEFR	R	A	95.00%	2.58	0.343	0	1	0	0	2	1,586.67	537	549	TRUE	
SNU216LR_PC2_02	Probable ATP-dependent RNA helicase DDX10	IPI00297900	100,891.30	100.00%	2	2	2	0.01%	4.11%	QDNDTGNEEQEEEEDDEEEMEEK	R	L	95.00%	2.41	0.516	0	0	1	0	2	2,879.97	573	595	TRUE	
SNU216LR_PC2_02	Condensin complex subunit 3	IPI00106495	114,338.40	100.00%	2	2	2	0.01%	1.38%	LNLAQFLNEDLS	K	-	95.00%	2.69	0.323	0	1	0	0	2	1,456.67	1004	1015	TRUE	
SNU216LR_PC2_02	Condensin complex subunit 3	IPI00106495	114,338.40	100.00%	2	2	2	0.01%	1.38%	SKLNLAQFLNEDLS	K	-	95.00%	2.72	0.197	0	1	0	0	2	1,671.80	1002	1015	TRUE	
SNU216LR_PC2_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	3	0.02%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.13	0.36	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216LR_PC2_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	3	0.02%	6.17%	WLDESDAEMELR	R	A	95.00%	2.79	0.297	0	2	0	0	2	1,573.62	110	121	TRUE	
SNU216LR_PC2_02	GMP synthase	IPI00029079	76,716.70	100.00%	1	1	1	0.01%	1.59%	TLNMTTSPEEK	K	R	95.00%	2.12	0.212	0	1	0	0	2	1,330.56	326	336	TRUE	
SNU216LR_PC2_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	121,269.90	100.00%	3	3	3	0.02%	4.65%	RSSDPVPGPPADTQPSASHPGGQSLK	R	L	95.00%	5.22	0.5	0	0	1	0	2	2,650.23	140	165	TRUE	
SNU216LR_PC2_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	121,269.90	100.00%	3	3	3	0.02%	4.65%	SESPSKDFGPTLGLK	K	K	95.00%	2.8	0.453	0	1	0	0	2	1,642.77	729	743	TRUE	
SNU216LR_PC2_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	121,269.90	100.00%	3	3	3	0.02%	4.65%	SSSLESLQTAVAEVR	K	K	95.00%	3.15	0.461	0	1	0	0	2	1,656.78	745	759	TRUE	
SNU216LR_PC2_02	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	100.00%	3	3	3	0.02%	4.10%	EESSEDNEVSNILR	K	S	95.00%	2.88	0.458	0	1	0	0	2	1,909.71	955	969	TRUE	
SNU216LR_PC2_02	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	100.00%	3	3	3	0.02%	4.10%	RPEPSTLENITDDKYATVSSPSK	K	S	81.80%	5.81	0	0	0	1	0	2	2,615.22	461	483	TRUE	
SNU216LR_PC2_02	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	100.00%	3	3	3	0.02%	4.10%	VQRPKEESSEDENEVSNILR	R	S	95.00%	3.18	0.362	0	0	1	0	2	2,518.09	950	969	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	5	0.03%	2.81%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	95.00%	4.08	0.205	0	0	1	0	2	3,103.27	670	695	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	5	0.03%	2.81%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.42	0.579	0	3	1	0	2	2,194.90	677	695	TRUE	
SNU216LR_PC2_02	Ubiquitin-like PHD and RING finger domain-conta	IPI00066641,IPI00645728	89,813.80	100.00%	1	2	2	0.01%	2.02%	IERPGEGSPMVDNPMR	K	R	95.00%	3.69	0.259	0	1	1	0	2	1,864.81	280	295	TRUE	
SNU216LR_PC2_02	Nardilysin	IPI00243221,IPI00747052	139,288.40	99.80%	1	1	1	0.01%	1.15%	RGSLSNAGDPEIVK	R	S	95.00%	3.26	0.37	0	0	1	0	2	1,522.73	92	105	TRUE	
SNU216LR_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.81%	GDLSDVEEEEEEEMDVDEATGAVK	R	K	95.00%	5.19	0.41	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216LR_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.81%	GDLSDVEEEEEEEMDVDEATGAVKK	R	H	95.00%	4.92	0.51	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216LR_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.81%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	5.27	0.0995	0	0	1	0	2	4,089.02	277	313	TRUE	
SNU216LR_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.81%	YMNSDTTSPELR	R	E	95.00%	2.21	0.303	0	1	0	0	2	1,493.60	1105	1116	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	10	0.06%	5.22%	FEDEDSDDVPR	K	K	95.00%	2.2	0.333	0	1	0	0	2	1,403.50	698	708	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	10	0.06%	5.22%	LGASNSPGQPNSVK	K	R	95.00%	2.84	0.327	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	10	0.06%	5.22%	LGASNSPGQPNSVKR	K	K	95.00%	2.73	0.379	0	1	1	0	2	1,591.76	672	686	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	10	0.06%	5.22%	QEPESEEEEEEKQEK	K	E	95.00%	2.85	0.435	0	3	0	0	2	1,956.76	579	593	TRUE	
SNU216LR_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	6	10	0.06%	5.22%	QEPESEEEEEEKQEKEEK	K	R	95.00%	3.33	0.425	0	0	3	0	2	2,342.94	579	596	TRUE	
SNU216LR_PC2_02	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	2	2	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.66	0.393	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216LR_PC2_02	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	1	3	5	0.03%	3.16%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.07	0.484	0	1	2	2	2	2,465.14	415	437	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein XP_944986	IPI00654583	115,745.30	99.90%	2	2	2	0.01%	2.92%	RHSEQVANGPTPPPR	R	R	95.00%	3.22	0.304	0	0	1	0	2	1,722.81	868	882	TRUE	
SNU216LR_PC2_02	PREDICTED: hypothetical protein XP_944986	IPI00654583	115,745.30	99.90%	2	2	2	0.01%	2.92%	SIPQLDLGWPDTIAYR	R	G	95.00%	3.32	0.509	0	1	0	0	2	1,924.92	363	378	TRUE	
SNU216LR_PC2_02	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	100.00%	1	2	2	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	2.91	0.401	0	1	1	0	2	1,851.90	937	951	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	AEPSEVDMNSPK	K	S	87.60%	2.18	0.168	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	EEPSQNDISPK	K	T	95.00%	2.14	0.226	0	1	0	0	2	1,323.55	81	91	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	4.01	0.425	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	KEEPSQNDISPK	K	T	92.70%	2.95	0.167	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	4.11	0.278	0	1	1	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.41	0.444	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	NEEPSEEEIDAPK	K	P	94.90%	2.38	0.199	0	1	0	0	2	1,566.62	117	129	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	3.91	0.456	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	9	13	13	0.08%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	4.05	0.353	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216LR_PC2_02	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	99.80%	2	2	2	0.01%	4.76%	ALELPLAASSIPRPRTPSPESHR	K	S	95.00%	3.82	0.125	0	0	0	1	2	2,642.29	623	645	TRUE	
SNU216LR_PC2_02	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	99.80%	2	2	2	0.01%	4.76%	AVPMAPAPASPGSSNDSSAR	K	S	95.00%	4.14	0.15	0	1	0	0	2	1,949.84	750	769	TRUE	
SNU216LR_PC2_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	AEEKSPISINVK	K	T	95.00%	2.52	0.263	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216LR_PC2_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	EVKAEEKSPISINVK	R	T	95.00%	2.78	0.387	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216LR_PC2_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	3.9	0.421	0	0	1	0	2	2,591.25	92	117	TRUE	
SNU216LR_PC2_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	4	4	4	0.03%	4.94%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	3.39	0.3	0	0	1	0	2	2,030.85	281	298	TRUE	
SNU216LR_PC2_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	4	4	4	0.03%	4.94%	KPLAAPGDGEGLGQTAQPSPPAR	R	D	95.00%	4.38	0.453	0	0	1	0	2	2,295.11	741	763	TRUE	
SNU216LR_PC2_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	4	4	4	0.03%	4.94%	MVIQLRPGRSPEPDGPAPAFLR	R	Q	95.00%	2.67	0.208	0	0	1	0	2	2,484.26	774	795	TRUE	
SNU216LR_PC2_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	4	4	4	0.03%	4.94%	RRSPQEGPTWSR	R	G	95.00%	3.21	0.252	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216LR_PC2_02	Neurogenic locus notch homolog protein 2 precu	IPI00297655,IPI00744005	265,395.10	99.80%	1	1	1	0.01%	0.65%	AEDEALLSEEDDPIDR	K	R	95.00%	2.78	0.302	0	1	0	0	2	1,896.78	1771	1786	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	7.06	0.0327	0	0	1	0	2	2,976.44	103	129	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	LNDPFQPFPGNDSPK	K	E	95.00%	3.25	0.308	0	1	0	0	2	1,752.76	668	682	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	NIIGSSPVADFSAIK	K	E	95.00%	2.75	0.373	0	1	0	0	2	1,598.78	319	333	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	SINKLDSPDPFK	R	L	95.00%	3.13	0.364	0	1	0	0	2	1,440.68	656	667	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	SINKLDSPDPFKLNDPFQPFPGNDSPK	R	E	95.00%	5.38	0.482	0	0	1	0	2	3,094.46	656	682	TRUE	
SNU216LR_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	7	7	0.04%	10.30%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	3.74	0.36	0	1	1	0	2	2,483.14	428	450	TRUE	
SNU216LR_PC2_02	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	2	2	0.01%	8.16%	FAFSPLSEEEEEDEQKEPMLK	R	E	95.00%	3.47	0.42	0	0	1	0	2	2,592.11	478	498	TRUE	
SNU216LR_PC2_02	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	2	2	0.01%	8.16%	WVEENVPSSVTDVALPALLDSDEER	K	M	95.00%	3.64	0.212	0	0	1	0	2	2,850.31	529	553	TRUE	
SNU216LR_PC2_02	Cytospin-A	IPI00178072	124,595.60	100.00%	1	1	1	0.01%	1.70%	HSISGPISTSKPLTALSDK	R	R	95.00%	3.84	0.27	0	0	1	0	2	2,019.02	886	904	TRUE	
SNU216LR_PC2_02	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	ESENSGDSGYPSEK	R	R	95.00%	2.94	0.418	0	1	0	0	2	1,565.56	434	447	TRUE	
SNU216LR_PC2_02	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	KYESDEDSLGSSGR	R	V	95.00%	2.92	0.412	0	2	0	0	2	1,609.64	467	480	TRUE	
SNU216LR_PC2_02	Zyxin	IPI00020513,IPI00396557	67,284.00	100.00%	6	8	8	0.05%	15.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.29	0.524	0	1	0	0	2	2,518.19	199	220	TRUE	
SNU216LR_PC2_02	Zyxin	IPI00020513,IPI00396557	67,284.00	100.00%	6	8	8	0.05%	15.80%	FSPGAPGGSGSQPNQK	K	L	95.00%	3.07	0.41	0	1	0	0	2	1,595.69	340	355	TRUE	
SNU216LR_PC2_02	Zyxin	IPI00020513,IPI00396557	67,284.00	100.00%	6	8	8	0.05%	15.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.31	0.343	0	0	1	0	2	2,326.09	333	355	TRUE	
SNU216LR_PC2_02	Zyxin	IPI00020513,IPI00396557	67,284.00	100.00%	6	8	8	0.05%	15.80%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	3.85	0.416	0	1	1	0	2	1,912.96	314	332	TRUE	
SNU216LR_PC2_02	Zyxin	IPI00020513,IPI00396557	67,284.00	100.00%	6	8	8	0.05%	15.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	2.94	0.289	0	0	1	0	2	2,677.24	356	380	TRUE	
SNU216LR_PC2_02	Zyxin	IPI00020513,IPI00396557	67,284.00	100.00%	6	8	8	0.05%	15.80%	SPGAPGPLTLK	R	E	95.00%	2.18	0.318	1	1	0	0	2	1,117.57	404	414	TRUE	
SNU216LR_PC2_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	AIGSTSKPQESPKGK	R	R	95.00%	3.31	0.434	0	1	0	0	2	1,594.78	231	245	TRUE	
SNU216LR_PC2_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.66	0.362	0	1	1	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC2_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	TPSKPPAQLSPSVPK	K	R	94.20%	2.26	0.235	0	1	0	0	2	1,613.83	257	271	TRUE	
SNU216LR_PC2_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.03%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	2.83	0.345	0	1	0	0	2	2,279.96	480	500	TRUE	
SNU216LR_PC2_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.03%	8.20%	DTEGGPKEEESPV	K	-	95.00%	2.62	0.39	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216LR_PC2_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.03%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.28	0.464	0	1	0	0	2	1,925.87	463	479	TRUE	
SNU216LR_PC2_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	4	4	0.03%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	3.61	0.349	0	0	1	0	2	2,270.04	460	479	TRUE	
SNU216LR_PC2_02	E-cadherin	IPI00000513,IPI00025861,IP	90,943.50	100.00%	1	1	1	0.01%	1.46%	NDVAPTLMSVPR	R	Y	95.00%	2.39	0.218	0	1	0	0	2	1,379.64	724	735	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.70%	2	3	4	0.03%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	6.79	0.495	0	0	2	1	2	3,734.84	125	160	TRUE	
SNU216LR_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.70%	2	3	4	0.03%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	94.70%	2.62	0.217	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	KPSKEMSSDSEYDSDDDR	K	T	95.00%	2.61	0.301	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	KQSFDDNDSEELEDKDSK	K	S	95.00%	4.8	0.393	0	1	0	0	2	2,208.88	105	122	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	KWDGSEEDEDNSK	K	K	95.00%	2.88	0.216	0	1	0	0	2	1,618.59	160	172	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	KWDGSEEDEDNSKK	K	I	95.00%	3.77	0.35	0	1	1	0	2	1,746.69	160	173	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.52	0.514	0	2	1	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.79	0.392	0	1	1	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	VEMYSGSDDDDDFNK	K	L	95.00%	2.28	0.44	0	1	0	0	2	1,896.59	131	145	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	4.44	0.415	0	3	1	0	2	2,154.86	131	148	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	WDGSEEDEDNSK	K	K	95.00%	1.96	0.355	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	14	17	0.11%	7.13%	WDGSEEDEDNSKK	K	I	95.00%	2.78	0.482	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC2_02	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	100.00%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	5.26	0.0359	0	0	1	0	2	2,182.85	9	33	TRUE	
SNU216LR_PC2_02	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	1	1	1	0.01%	2.19%	SESELIDELSEDFDR	R	S	95.00%	3.17	0.486	0	1	0	0	2	1,863.75	342	356	TRUE	
SNU216LR_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.19%	DSSFTEVPRSPK	R	H	95.00%	2.55	0.315	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216LR_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.19%	QAHDLSPAAESSSTSFSFSGR	R	D	95.00%	4	0.445	0	1	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.19%	SPSFGDPQLSPEARPR	R	C	87.10%	2.29	0.168	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216LR_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.19%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.64	0.58	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216LR_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.19%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	3.81	0.279	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216LR_PC2_02	Nuclear pore complex protein Nup107	IPI00028005	106,376.70	100.00%	1	1	1	0.01%	1.30%	SGFGEISSPVIR	R	E	95.00%	2.02	0.297	0	1	0	0	2	1,328.62	4	15	TRUE	
SNU216LR_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	13.60%	ADSDGAKPEPVAMAR	K	S	95.00%	2.57	0.255	0	1	0	0	2	1,594.69	238	252	TRUE	
SNU216LR_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	13.60%	ARGDSEALDEES	R	-	95.00%	2.07	0.226	0	1	0	0	2	1,358.51	664	675	TRUE	
SNU216LR_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	13.60%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	3.34	0.383	0	1	1	0	2	2,322.91	616	635	TRUE	
SNU216LR_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	13.60%	GSGGSSGDELREDDEPVK	R	K	95.00%	2.88	0.344	0	1	0	0	2	1,993.74	365	382	TRUE	
SNU216LR_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	13.60%	GVMAVTAVTATAASDR	R	M	94.10%	2.24	0.208	0	1	0	0	2	1,600.74	124	139	TRUE	
SNU216LR_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	13.60%	KRSEGFSMDR	R	K	95.00%	2.56	0.299	0	0	1	0	2	1,292.55	452	461	TRUE	
SNU216LR_PC2_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	3	3	0.02%	1.71%	KNSLISSLEEEVSILNR	R	Q	95.00%	3.87	0.394	0	1	1	0	2	2,011.01	1223	1239	TRUE	
SNU216LR_PC2_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	3	3	0.02%	1.71%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.16	0.469	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC2_02	Protein diaphanous homolog 1	IPI00030876	138,984.10	99.80%	1	1	1	0.01%	1.28%	GRSPDELPSAGGDGGK	K	S	95.00%	3.24	0.38	0	1	0	0	2	1,579.68	20	35	TRUE	
SNU216LR_PC2_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.80%	2	2	2	0.01%	1.64%	ETSPESSLIQDEIAVK	K	L	95.00%	3.23	0.468	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216LR_PC2_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.80%	2	2	2	0.01%	1.64%	VDHGAEIITQSPGR	R	S	95.00%	3.15	0.472	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC2_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	99.80%	2	2	2	0.01%	2.34%	KVTGTEGSSSTLVDYTSTSSTGGSPVRK	R	S	95.00%	4.39	0.138	0	0	1	0	2	2,869.35	1077	1104	TRUE	
SNU216LR_PC2_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	99.80%	2	2	2	0.01%	2.34%	WDKDDFESEEEDVK	K	S	95.00%	3.23	0.252	0	1	0	0	2	1,850.70	1144	1157	TRUE	
SNU216LR_PC2_02	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	99.90%	3	3	3	0.02%	8.69%	DSGSQEVLSELR	K	V	80.00%	2.2	0.17	0	1	0	0	2	1,399.61	450	461	TRUE	
SNU216LR_PC2_02	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	99.90%	3	3	3	0.02%	8.69%	DYLLSESEDEGDNDGERK	K	H	95.00%	3.28	0.335	0	1	0	0	2	2,230.81	25	42	TRUE	
SNU216LR_PC2_02	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	99.90%	3	3	3	0.02%	8.69%	EAATQEDPEQLPELEAHGVSESEGEERPVAE	K	E	90.20%	3.52	0.186	0	0	0	1	2	4,195.92	386	422	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Isoform 1 of Probable nucleolar complex protein	IPI00022613,IPI00743803	91,388.00	99.90%	2	2	2	0.01%	3.15%	FGEYNSNMSPEEK	R	M	95.00%	2.45	0.184	0	1	0	0	2	1,611.60	88	100	TRUE	
SNU216LR_PC2_02	Isoform 1 of Probable nucleolar complex protein	IPI00022613,IPI00743803	91,388.00	99.90%	2	2	2	0.01%	3.15%	HNDIVDSDSDAEDR	K	G	95.00%	2.98	0.278	0	1	0	0	2	1,747.58	140	153	TRUE	
SNU216LR_PC2_02	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	2	3	3	0.02%	4.44%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	4.91	0.475	0	1	1	0	2	2,339.18	682	702	TRUE	
SNU216LR_PC2_02	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	2	3	3	0.02%	4.44%	YMLTHQELASDGEIETK	K	L	95.00%	3.61	0.374	0	1	0	0	2	2,044.89	754	770	TRUE	
SNU216LR_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	5	6	8	0.05%	14.70%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	4.39	0.146	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216LR_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	5	6	8	0.05%	14.70%	DLTHSDSESSLHMSDR	K	Q	95.00%	4.19	0.1	0	1	2	0	2	1,896.74	515	530	TRUE	
SNU216LR_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	5	6	8	0.05%	14.70%	KAVAEEDNGSIGEETDSSPGR	K	K	95.00%	3.82	0.192	0	1	0	0	2	2,227.94	651	671	TRUE	
SNU216LR_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	5	6	8	0.05%	14.70%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	4.44	0.397	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216LR_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	5	6	8	0.05%	14.70%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	4.03	0.529	0	2	0	0	2	2,001.82	616	634	TRUE	
SNU216LR_PC2_02	KH-type splicing regulatory protein	IPI00479786,IPI00759502	73,805.40	100.00%	1	1	1	0.01%	1.83%	VQISPDSGGLPER	K	S	95.00%	2.42	0.369	0	1	0	0	2	1,434.66	178	190	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	5	5	0.03%	12.10%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	4.64	0.419	0	0	1	1	2	3,222.36	68	95	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	5	5	0.03%	12.10%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	3.95	0.47	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	5	5	0.03%	12.10%	VGGVSPEEHPAPEVSTPFPPLPPEPEGGGEE	K	V	90.00%	3.23	0.149	0	0	1	0	2	3,329.53	480	511	TRUE	
SNU216LR_PC2_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.80%	2	2	2	0.01%	7.56%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	95.00%	5.75	0.0429	0	0	1	0	2	2,903.48	310	336	TRUE	
SNU216LR_PC2_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.80%	2	2	2	0.01%	7.56%	VKEEPPSPPQSPR	R	V	95.00%	3.1	0.361	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216LR_PC2_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	2	4	4	0.03%	4.93%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.27	0.442	0	1	1	1	2	2,450.06	90	113	TRUE	
SNU216LR_PC2_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	2	4	4	0.03%	4.93%	KTPEGRASPAPGSGHPEGPGAHLDMNSLD	R	A	95.00%	4.75	0.123	0	0	0	1	2	3,118.42	84	113	TRUE	
SNU216LR_PC2_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	3	3	3	0.02%	3.47%	IESDEEEDFENVGK	R	V	95.00%	3.63	0.441	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216LR_PC2_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	3	3	3	0.02%	3.47%	SVTPTKEFLKDEIK	K	Q	95.00%	3.17	0.407	0	0	1	0	2	1,714.87	365	378	TRUE	
SNU216LR_PC2_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	3	3	3	0.02%	3.47%	VGSPLDYSLVDLPSTNGQSPGK	K	A	89.50%	2.4	0.203	0	1	0	0	2	2,391.05	1316	1337	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	99.80%	2	4	4	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	4.71	0.527	0	1	1	1	2	1,836.88	210	226	TRUE	
SNU216LR_PC2_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	99.80%	2	4	4	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	2.99	0.341	0	1	0	0	2	1,646.83	234	247	TRUE	
SNU216LR_PC2_02	WW domain-binding protein 11	IPI00170786	69,999.90	100.00%	1	1	1	0.01%	2.34%	RRDEDMLYSPELAQR	R	G	88.50%	2.34	0.183	0	1	0	0	2	1,958.88	229	243	TRUE	
SNU216LR_PC2_02	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	100.00%	3	3	3	0.02%	5.77%	AASLDSVATSR	R	V	95.00%	1.84	0.292	0	1	0	0	2	1,157.52	758	768	TRUE	
SNU216LR_PC2_02	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	100.00%	3	3	3	0.02%	5.77%	ARGSPHFQHAEVR	R	I	95.00%	2.69	0.308	0	0	1	0	2	1,571.72	233	245	TRUE	
SNU216LR_PC2_02	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	100.00%	3	3	3	0.02%	5.77%	QAGAPGGSSGSGGSPELSALR	R	L	95.00%	3.91	0.118	0	1	0	0	2	1,922.86	527	547	TRUE	
SNU216LR_PC2_02	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.60%	2	3	3	0.02%	5.30%	EQSSDLTPSGDVSPVKPLSR	R	S	95.00%	3.65	0.432	0	1	1	0	2	2,179.03	365	384	TRUE	
SNU216LR_PC2_02	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.60%	2	3	3	0.02%	5.30%	YGGDSDHPSDGETSVQPMMTK	K	I	91.10%	3.71	0.0235	0	1	0	0	2	2,398.86	267	287	TRUE	
SNU216LR_PC2_02	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	3	3	0.02%	5.90%	DVDVSEDSPPPLPER	K	T	95.00%	3.14	0.4	0	1	0	0	2	1,731.75	666	680	TRUE	
SNU216LR_PC2_02	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	3	3	0.02%	5.90%	IADGVNEINTENMISSIEPEKQDSPPPKPPR	K	T	95.00%	5.4	0.435	0	0	1	1	2	3,482.65	309	339	TRUE	
SNU216LR_PC2_02	Plastin-2	IPI00010471	70,160.90	99.80%	2	2	2	0.01%	3.51%	EGESLEDLMK	R	L	95.00%	2.09	0.346	0	1	0	0	2	1,230.50	253	262	TRUE	
SNU216LR_PC2_02	Plastin-2	IPI00010471	70,160.90	99.80%	2	2	2	0.01%	3.51%	GSVSDEEMMELR	R	E	95.00%	2.37	0.45	0	1	0	0	2	1,462.56	3	14	TRUE	
SNU216LR_PC2_02	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	4	4	0.03%	4.30%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.82	0.555	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216LR_PC2_02	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	4	4	0.03%	4.30%	NDELLSDLTRTPPPPSSTFPK	R	A	95.00%	3.04	0.282	0	0	1	0	2	2,392.14	567	587	TRUE	
SNU216LR_PC2_02	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	4	4	0.03%	4.30%	SGAASMPSSPK	R	Q	95.00%	2.06	0.316	0	1	0	0	2	1,099.45	223	233	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	ASSLSESSPPK	R	A	95.00%	2.38	0.202	1	1	0	0	2	1,169.51	367	377	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.41	0.477	0	0	4	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	ETPHSPGVEDAPIAK	R	V	95.00%	2.87	0.423	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.83	0.524	0	1	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.84	0.519	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	LRSPPEALVQGR	R	Y	95.00%	3.48	0.38	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.47	0.355	0	2	2	1	2	2,060.92	350	366	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.83	0.516	0	0	7	2	2	3,432.41	666	695	TRUE	
SNU216LR_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	17	30	0.19%	17.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.52	0.362	0	1	2	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC2_02	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	2	2	2	0.01%	3.36%	EKEKVSTAVLSITAK	K	A	95.00%	2.71	0.231	0	0	0	1	2	1,763.86	824	838	TRUE	
SNU216LR_PC2_02	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	2	2	2	0.01%	3.36%	TSSAFVGKTPEASPEPK	K	D	95.00%	3.08	0.401	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216LR_PC2_02	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.03%	5.28%	GLVAAYSGDSDNEEELVER	R	L	95.00%	4.94	0.545	0	2	0	0	2	2,132.90	615	633	TRUE	
SNU216LR_PC2_02	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.03%	5.28%	SEDGYHSDGDYGEHDYR	R	H	95.00%	3.6	0.538	0	0	1	0	2	2,081.71	72	88	TRUE	
SNU216LR_PC2_02	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.03%	5.28%	SEDGYHSDGDYGEHDYRHDISDER	R	E	95.00%	4	0.364	0	0	0	1	2	2,934.09	72	95	TRUE	
SNU216LR_PC2_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	5	5	0.03%	6.52%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.41	0.347	0	1	1	0	2	2,242.10	907	927	TRUE	
SNU216LR_PC2_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	5	5	0.03%	6.52%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	6.49	0.635	0	1	1	0	2	3,022.17	279	305	TRUE	
SNU216LR_PC2_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	5	5	0.03%	6.52%	VKLDDDSDDDEESK	R	E	95.00%	2.76	0.221	0	1	0	0	2	1,689.64	598	611	TRUE	
SNU216LR_PC2_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	1	2	3	0.02%	3.24%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	5.22	0.612	0	1	2	0	2	3,107.21	566	591	TRUE	
SNU216LR_PC2_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	4	4	0.03%	3.79%	HLDRSPESDRPR	R	K	93.40%	2.69	0.185	0	0	1	0	2	1,544.70	652	663	TRUE	
SNU216LR_PC2_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	4	4	0.03%	3.79%	SLSPGGAALGYR	R	D	95.00%	2.52	0.157	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216LR_PC2_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	4	4	0.03%	3.79%	TTAPTEGKSPLKK	R	E	95.00%	2.86	0.193	0	1	1	0	2	1,437.74	733	745	TRUE	
SNU216LR_PC2_02	Isoform 1 of SLIT and NTRK-like protein 6 precurs	IPI00176398	95,114.10	99.50%	2	2	2	0.01%	3.80%	DNSPVHLQYSMYGHK	R	T	89.80%	2.76	0.196	0	0	1	0	2	1,855.78	650	664	TRUE	
SNU216LR_PC2_02	Isoform 1 of SLIT and NTRK-like protein 6 precurs	IPI00176398	95,114.10	99.50%	2	2	2	0.01%	3.80%	IEVLEEGSFMNLTRLQK	R	L	95.00%	3.27	0.252	0	0	1	0	2	2,103.02	399	415	TRUE	
SNU216LR_PC2_02	Isoform 1 of Double-strand break repair protein N	IPI00029159,IPI00218853	80,595.10	99.80%	1	1	1	0.01%	3.11%	GVDFESSEDDDDDPFMNTSSLR	K	R	95.00%	5.15	0.598	0	1	0	0	2	2,557.96	683	704	TRUE	
SNU216LR_PC2_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	99.80%	2	3	3	0.02%	3.32%	DTTSPMELAALEK	K	I	95.00%	2.65	0.301	0	1	0	0	2	1,485.65	427	439	TRUE	
SNU216LR_PC2_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	99.80%	2	3	3	0.02%	3.32%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	3.27	0.406	0	1	1	0	2	2,045.97	488	506	TRUE	
SNU216LR_PC2_02	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.80%	1	1	1	0.01%	0.99%	GGDVSPSPYSSSSWR	R	R	95.00%	3.21	0.312	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216LR_PC2_02	Heat shock 70 kDa protein 4	IPI00002966	94,301.00	100.00%	1	1	1	0.01%	4.29%	MQVDQEEPHVEEQQQQTPAENKAESEEM	K	D	95.00%	4.39	0.335	0	0	0	1	2	4,166.74	522	557	TRUE	
SNU216LR_PC2_02	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEK	R	N	95.00%	4.63	0.504	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216LR_PC2_02	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEKNETEPPK	R	G	95.00%	6.54	0.411	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216LR_PC2_02	DEAH (Asp-Glu-Ala-His) box polypeptide 36	IPI00027415,IPI00217760	114,779.80	99.80%	1	1	1	0.01%	0.69%	FQDGYYS	R	-	95.00%	1.34	0.362	1	0	0	0	2	959.3183	1002	1008	TRUE	
SNU216LR_PC2_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	2	2	0.01%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	3.13	0.235	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216LR_PC2_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	2	2	0.01%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	6.03	0.485	0	0	1	0	2	2,128.94	8	26	TRUE	
SNU216LR_PC2_02	zinc finger RNA binding protein	IPI00333858	117,011.80	99.80%	2	2	2	0.01%	1.40%	RDSDGVDGFEAEGK	R	K	95.00%	3.36	0.431	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216LR_PC2_02	zinc finger RNA binding protein	IPI00333858	117,011.80	99.80%	2	2	2	0.01%	1.40%	RRDSDGVDGFEAEGK	R	K	95.00%	3.64	0.282	0	0	1	0	2	1,717.72	1051	1065	TRUE	
SNU216LR_PC2_02	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	ALSSDSILSPAPDAR	R	A	95.00%	3.42	0.42	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216LR_PC2_02	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	ASTPDWVSEGPQPGLR	R	R	95.00%	3.2	0.425	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216LR_PC2_02	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	HLSESSGKPLSTK	R	Q	82.40%	2.23	0.169	0	1	0	0	2	1,450.69	469	481	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	5.2	0.501	0	0	1	1	2	3,599.65	366	400	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	3.6	0.36	0	0	1	2	2	4,001.82	363	400	TRUE	
SNU216LR_PC2_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.29	0.269	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC2_02	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	99.80%	2	2	2	0.01%	3.21%	DVRNSDMHLLDLESMGK	K	S	95.00%	3.88	0.38	0	0	1	0	2	2,039.89	284	300	TRUE	
SNU216LR_PC2_02	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	99.80%	2	2	2	0.01%	3.21%	EVLDEDTDEEKETLK	K	N	95.00%	3.72	0.324	0	1	0	0	2	1,872.80	918	932	TRUE	
SNU216LR_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	6	6	7	0.04%	10.20%	GGSISVQVNSIKFDSE	R	-	95.00%	3.14	0.308	0	2	0	0	2	1,746.79	694	709	TRUE	
SNU216LR_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	6	6	7	0.04%	10.20%	SPAVKPAAAPK	K	Q	91.40%	1.75	0.257	0	1	0	0	2	1,116.58	407	417	TRUE	
SNU216LR_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	6	6	7	0.04%	10.20%	SSSSEDSSSDEEEEQKKPMK	K	N	95.00%	3.43	0.301	0	0	1	0	2	2,323.91	274	293	TRUE	
SNU216LR_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	6	6	7	0.04%	10.20%	VADNSFDAKR	R	G	95.00%	2.08	0.417	0	1	0	0	2	1,202.52	649	658	TRUE	
SNU216LR_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	6	6	7	0.04%	10.20%	VAGGAAPSKPASAK	K	K	85.20%	2.39	0.142	0	1	0	0	2	1,291.64	507	520	TRUE	
SNU216LR_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	6	6	7	0.04%	10.20%	VAGGAAPSKPASAKK	K	G	95.00%	2.38	0.215	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC2_02	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	100.00%	3	3	3	0.02%	4.99%	ELLSPLSEPDDRYPLIVK	K	I	94.80%	2.71	0.211	0	0	1	0	2	2,164.09	700	717	TRUE	
SNU216LR_PC2_02	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	100.00%	3	3	3	0.02%	4.99%	SKSPRDPDANWDSPSR	R	V	95.00%	2.65	0.291	0	0	1	0	2	1,894.81	210	225	TRUE	
SNU216LR_PC2_02	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	100.00%	3	3	3	0.02%	4.99%	VNPHKVSPASSVDSNIPSSQGYKK	K	E	95.00%	2.86	0.346	0	0	0	1	2	2,606.26	481	504	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	5	6	6	0.04%	9.71%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.86	0.413	0	1	1	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	5	6	6	0.04%	9.71%	FPTTATKISPK	K	E	95.00%	2.36	0.249	0	1	0	0	2	1,270.64	414	424	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	5	6	6	0.04%	9.71%	KFPTTATKISPK	K	E	95.00%	2.57	0.225	0	0	1	0	2	1,398.74	413	424	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	5	6	6	0.04%	9.71%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	K	E	95.00%	4.89	0.337	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216LR_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	5	6	6	0.04%	9.71%	TKPLASVTNANTSSTQAAPVAVTTPTVSSG(	K	F	81.40%	3.25	0.165	0	0	0	1	2	3,990.04	374	413	TRUE	
SNU216LR_PC2_02	Exportin-4	IPI00028357	130,143.10	99.80%	2	3	3	0.02%	3.91%	EEEEISELQEDDRDQFSDQLASVGMLGR	R	I	95.00%	4.16	0.316	0	0	1	0	2	3,305.42	459	486	TRUE	
SNU216LR_PC2_02	Exportin-4	IPI00028357	130,143.10	99.80%	2	3	3	0.02%	3.91%	HQQQLLASPGSSTVDNK	R	M	95.00%	4.33	0.477	0	1	1	0	2	1,889.88	514	530	TRUE	
SNU216LR_PC2_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.85	0.295	0	1	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC2_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.3	0.437	0	1	1	0	2	2,184.10	472	489	TRUE	
SNU216LR_PC2_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.61	0.549	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC2_02	SR-related CTD associated factor 6	IPI00333010,IPI00642935	99,992.40	99.80%	1	1	1	0.01%	2.62%	SRSPTPPSSAGLGSNSAPPIPDSR	R	L	95.00%	3.28	0.195	0	1	0	0	2	2,575.06	783	806	TRUE	
SNU216LR_PC2_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.69	0.435	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216LR_PC2_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	KRVSVELTNSLFK	R	H	95.00%	3.1	0.347	0	1	0	0	2	1,600.85	660	672	TRUE	
SNU216LR_PC2_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	RVSVELTNSLFK	K	H	95.00%	2.84	0.294	0	1	0	0	2	1,472.75	661	672	TRUE	
SNU216LR_PC2_02	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.03%	AYTPVVVTLWYR	K	A	95.00%	2.89	0.266	0	1	0	0	2	1,547.77	593	604	TRUE	
SNU216LR_PC2_02	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.03%	DLLSDLQDISDSER	R	K	95.00%	3.09	0.159	0	1	0	0	2	1,685.73	274	287	TRUE	
SNU216LR_PC2_02	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.03%	EYGSPLKAYTPVVVTLWYR	R	A	90.20%	2.68	0.127	0	1	0	0	2	2,402.12	586	604	TRUE	
SNU216LR_PC2_02	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.03%	GTSPRPPEGGLGYSQLGDDDLK	R	E	95.00%	3.68	0.371	0	0	1	0	2	2,339.06	750	771	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	4.04%	RPAGGRPSPSAMGK	R	R	95.00%	2.74	0.222	0	1	0	0	2	1,448.68	716	729	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	4.04%	SPSPAHLPDDPK	R	V	95.00%	2.52	0.338	0	1	0	0	2	1,340.59	604	615	TRUE	
SNU216LR_PC2_02	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	4.04%	SPSPAHLPDDPKVAEK	R	Q	95.00%	3.73	0.359	0	0	1	0	2	1,767.83	604	619	TRUE	
SNU216LR_PC2_02	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	99.70%	1	1	1	0.01%	3.20%	SNSPLPVPPSK	R	A	94.80%	1.87	0.251	0	1	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	3	5	6	0.04%	4.05%	DSENLASPSEYPENGER	R	F	95.00%	2.85	0.298	0	2	0	0	2	1,973.78	617	633	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	3	5	6	0.04%	4.05%	TAPLPPASQTTPLQMALNGKPAPPPQSQSP	K	V	95.00%	5.99	0.499	0	0	1	1	2	3,913.95	906	942	TRUE	
SNU216LR_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	3	5	6	0.04%	4.05%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.74	0.313	0	1	1	0	2	1,971.75	883	898	TRUE	
SNU216LR_PC2_02	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	99.80%	2	2	2	0.01%	4.77%	AMTLSPQEEVAAGQMASSSR	R	S	95.00%	4.87	0.5	0	1	0	0	2	2,130.92	313	332	TRUE	
SNU216LR_PC2_02	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	99.80%	2	2	2	0.01%	4.77%	VSGSPEQAVEENLSSYSLDR	K	R	95.00%	4.59	0.552	0	1	0	0	2	2,246.98	174	193	TRUE	
SNU216LR_PC2_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	3.33	0.307	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC2_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	3.43	0.265	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC2_02	Glutaminyl-tRNA synthetase	IPI00026665	87,799.90	100.00%	1	1	1	0.01%	1.55%	RLSFLVSYIASK	R	K	95.00%	2.47	0.299	0	1	0	0	2	1,463.77	68	79	TRUE	
SNU216LR_PC2_02	CAD protein	IPI00301263	242,982.50	99.80%	2	2	2	0.01%	2.34%	IHRASDPGLPAEEPK	R	E	95.00%	3.74	0.391	0	0	1	0	2	1,696.81	1855	1869	TRUE	
SNU216LR_PC2_02	CAD protein	IPI00301263	242,982.50	99.80%	2	2	2	0.01%	2.34%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	5.39	0.492	0	0	0	1	2	4,052.11	1898	1934	TRUE	
SNU216LR_PC2_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	99.80%	1	1	1	0.01%	4.90%	GSGSGSHNWGTVKDELTESPK	R	Y	95.00%	2.45	0.218	0	0	1	0	2	2,165.95	217	236	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	100.00%	3	3	3	0.02%	9.69%	FMEQSRSPSVSPSK	K	Q	88.90%	2.68	0.114	0	1	0	0	2	1,646.72	219	232	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	100.00%	3	3	3	0.02%	9.69%	FMEQSRSPSVSPSKQPVSTSSK	K	T	84.50%	4.34	0.0717	0	0	1	0	2	2,541.11	219	240	TRUE	
SNU216LR_PC2_02	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	100.00%	3	3	3	0.02%	9.69%	SAYQEYDSDSDVPEELKR	K	D	95.00%	3.94	0.292	0	0	1	0	2	2,210.91	283	300	TRUE	
SNU216LR_PC2_02	FCH domain only 2	IPI00472794	89,293.90	99.50%	2	2	2	0.01%	7.00%	GPSPVSLGNQDTLPVAVALTESVNAYFK	R	G	95.00%	6.05	0.557	0	0	1	0	2	2,954.45	535	562	TRUE	
SNU216LR_PC2_02	FCH domain only 2	IPI00472794	89,293.90	99.50%	2	2	2	0.01%	7.00%	LSGINEIPRPFSPPVTSNTSPPPAAPLAR	K	A	89.30%	4.14	0.0864	0	0	1	0	2	3,063.57	481	509	TRUE	
SNU216LR_PC2_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.03%	4.12%	KTESPIKLSPATPSR	K	K	95.00%	2.94	0.239	0	1	1	0	2	1,691.87	660	674	TRUE	
SNU216LR_PC2_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.03%	4.12%	SPPLPAVIR	R	N	95.00%	1.68	0.344	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216LR_PC2_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.03%	4.12%	SVAVSDEEEVEEEAER	R	R	95.00%	3.77	0.324	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216LR_PC2_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	3	5	0.03%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	2.83	0.399	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216LR_PC2_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	3	5	0.03%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	6.11	0.566	0	0	1	3	2	2,333.13	446	466	TRUE	
SNU216LR_PC2_02	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	2	3	0.02%	4.05%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	2.96	0.279	0	2	0	0	2	2,007.96	389	406	TRUE	
SNU216LR_PC2_02	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	2	3	0.02%	4.05%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	5.86	0.381	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216LR_PC2_02	Similar to RAB3 GTPase-activating protein	IPI00014235	111,287.70	99.80%	1	1	1	0.01%	1.72%	KTSASDVTNIYPGDAGK	K	A	95.00%	4.46	0.504	0	1	0	0	2	1,803.82	535	551	TRUE	
SNU216LR_PC3_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	2	3	0.02%	7.60%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	2.99	0.414	0	2	0	0	2	2,279.96	480	500	TRUE	
SNU216LR_PC3_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	2	3	0.02%	7.60%	EEETSIDVAGKPNEVTK	K	A	95.00%	2.51	0.28	0	1	0	0	2	1,925.87	463	479	TRUE	
SNU216LR_PC3_02	Heat shock protein 60	IPI00472102	61,213.90	100.00%	1	1	1	0.01%	2.09%	TVIIEQSWGSPK	R	V	95.00%	3.36	0.375	0	1	0	0	2	1,424.68	61	72	TRUE	
SNU216LR_PC3_02	Isoform 1 of Wilms' tumor 1-associating protein	IPI00220302	44,243.40	99.80%	1	1	1	0.01%	4.55%	EGNTTEDDFPSSPGNGNK	R	S	95.00%	3.74	0.423	0	1	0	0	2	1,945.75	295	312	TRUE	
SNU216LR_PC3_02	61 kDa protein	IPI00658093	61,420.00	99.80%	2	2	2	0.01%	7.57%	GPEGGSTAQVPAPTASPPPEGPVLTFQSEK	R	M	95.00%	3.34	0.282	0	0	1	0	2	3,013.42	473	502	TRUE	
SNU216LR_PC3_02	61 kDa protein	IPI00658093	61,420.00	99.80%	2	2	2	0.01%	7.57%	RESKPEEPPPPK	R	K	95.00%	2.96	0.356	0	0	1	0	2	1,470.70	430	441	TRUE	
SNU216LR_PC3_02	Hypothetical protein LEO1	IPI00103090	75,405.30	99.80%	2	2	3	0.02%	4.50%	AQGSDEDKLQNSDDDEK	R	M	95.00%	2.09	0.348	0	1	0	0	2	2,053.73	168	184	TRUE	
SNU216LR_PC3_02	Hypothetical protein LEO1	IPI00103090	75,405.30	99.80%	2	2	3	0.02%	4.50%	KLTSDEEGEPSGK	K	R	95.00%	2.52	0.207	0	2	0	0	2	1,456.62	627	639	TRUE	
SNU216LR_PC3_02	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.80%	2	2	3	0.02%	8.96%	IAAPELHKGDSDSEEDEPTK	K	K	95.00%	3.61	0.379	0	2	0	0	2	2,247.97	147	166	TRUE	
SNU216LR_PC3_02	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.80%	2	2	3	0.02%	8.96%	QITQEEDDSDEEVAPENFFSLPEK	K	A	95.00%	3.93	0.397	0	0	1	0	2	2,876.20	259	282	TRUE	
SNU216LR_PC3_02	Insulin receptor tyrosine kinase substrate	IPI00179326	56,883.90	100.00%	1	1	1	0.01%	3.72%	TPASTPVSGTPQASPMIER	K	S	95.00%	4.34	0.127	0	1	0	0	2	2,006.93	248	266	TRUE	
SNU216LR_PC3_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	1	1	1	0.01%	1.53%	GRSFAGNLNTYK	R	R	95.00%	2.97	0.395	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216LR_PC3_02	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	1	2	3	0.02%	3.39%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	4.87	0.126	0	1	2	0	2	2,929.08	432	455	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	4	0.02%	1.56%	PMEEDGEEKSPSK	R	K	95.00%	2.9	0.447	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216LR_PC3_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	4	0.02%	1.56%	RPMEEDGEEKSPSK	K	K	95.00%	4.11	0.447	0	1	2	0	2	1,698.70	372	385	TRUE	
SNU216LR_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.27	0.498	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.79	0.384	0	0	2	1	2	3,647.49	108	138	TRUE	
SNU216LR_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	LDNVPHTPSSYIETLPK	R	A	95.00%	3.09	0.374	0	0	1	0	2	1,990.95	45	61	TRUE	
SNU216LR_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.66	0.475	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216LR_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	3.46	0.438	0	0	1	1	2	3,787.60	107	138	TRUE	
SNU216LR_PC3_02	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	1	2	2	0.01%	2.96%	VNLEESSGVENSPAGARPK	R	R	95.00%	4.33	0.405	0	1	1	0	2	2,020.93	291	309	TRUE	
SNU216LR_PC3_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	3	3	0.02%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	3.19	0.352	0	1	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC3_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	3	3	0.02%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.81	0.391	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC3_02	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	1	1	1	0.01%	4.83%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	4.27	0.47	0	1	0	0	2	2,302.01	351	371	TRUE	
SNU216LR_PC3_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	5	11	0.06%	3.54%	SPSPEPIYNSEGK	R	R	95.00%	2.34	0.337	0	2	0	0	2	1,564.60	204	216	TRUE	
SNU216LR_PC3_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	5	11	0.06%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.47	0.286	0	1	3	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC3_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	5	11	0.06%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.99	0.246	0	0	3	2	2	3,082.36	191	217	TRUE	
SNU216LR_PC3_02	Isoform 1 of Cleavage and polyadenylation specif	IPI00550821,IPI00719106	51,096.50	100.00%	1	1	1	0.01%	2.34%	SSSTEPPPPVR	R	Q	95.00%	1.96	0.311	0	1	0	0	2	1,233.55	46	56	TRUE	
SNU216LR_PC3_02	Heat shock-related 70 kDa protein 2	IPI00007702	70,023.00	99.80%	1	1	1	0.01%	1.88%	KFEDATVQSDMK	R	H	95.00%	2.29	0.25	0	1	0	0	2	1,558.59	78	89	TRUE	
SNU216LR_PC3_02	Nucleolar protein NOP5	IPI00006379	59,580.20	100.00%	1	1	1	0.01%	3.02%	YGLIYHASLVGQTSPK	K	H	95.00%	3.34	0.499	0	1	0	0	2	1,813.89	338	353	TRUE	
SNU216LR_PC3_02	PREDICTED: similar to centaurin, gamma 2 isoforr	REVERSE_IPI00741930-R	10,217.90	99.60%	1	1	2	0.01%	12.40%	HTACMEYYMCR	R	K	95.00%	0.28	0.961	0	2	0	0	2	1,777.47	37	47	TRUE	
SNU216LR_PC3_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	3	3	3	0.02%	8.86%	KADGEDAGAESNEEAPGEPSAGSSEEAPGE	R	S	83.00%	4.71	0.0584	0	0	1	0	2	4,208.68	93	135	TRUE	
SNU216LR_PC3_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	3	3	3	0.02%	8.86%	RVNDAEPGSPEAPQGK	R	R	95.00%	2.55	0.253	0	1	0	0	2	1,731.77	75	90	TRUE	
SNU216LR_PC3_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	3	3	3	0.02%	8.86%	VNDAEPGSPEAPQGK	R	R	95.00%	2.85	0.398	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216LR_PC3_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.64%	GGSISVQVNSIKFDSE	R	-	95.00%	2.95	0.302	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216LR_PC3_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.64%	VADNSFDAKR	R	G	95.00%	1.95	0.266	0	1	0	0	2	1,202.52	649	658	TRUE	
SNU216LR_PC3_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.64%	VAGGAAPSKPASAK	K	K	93.90%	2.4	0.211	0	1	0	0	2	1,291.64	507	520	TRUE	
SNU216LR_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	7	0.04%	26.40%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	91.80%	6.18	0.0246	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	7	0.04%	26.40%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.65	0.539	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	7	0.04%	26.40%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.74	0.362	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	7	0.04%	26.40%	QPPPLAPQSPQGGVMGGSNSNQQQQMR	K	L	95.00%	6.01	0.553	0	0	1	0	2	2,899.30	243	269	TRUE	
SNU216LR_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	7	0.04%	26.40%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.4	0.264	0	2	0	0	2	2,297.02	162	181	TRUE	
SNU216LR_PC3_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	3	3	3	0.02%	3.78%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.59	0.533	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC3_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	3	3	3	0.02%	3.78%	SVASSQPAKPTK	R	V	95.00%	2.64	0.466	0	1	0	0	2	1,280.62	175	186	TRUE	
SNU216LR_PC3_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	3	3	3	0.02%	3.78%	VQIPVSRPDDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.54	0.293	0	0	1	0	2	3,523.46	112	140	TRUE	
SNU216LR_PC3_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	3	0.02%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	3.65	0.508	0	2	0	0	2	2,304.83	179	197	TRUE	
SNU216LR_PC3_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	3	0.02%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	2.88	0.211	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216LR_PC3_02	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	100.00%	1	2	2	0.01%	5.69%	INHTVILDDPFDDPPDLLIPDRSPEPTR	R	E	95.00%	6.43	0.557	0	0	1	1	2	3,277.58	156	183	TRUE	
SNU216LR_PC3_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	GSSPGPRPVEGTPASR	R	T	95.00%	2.49	0.272	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC3_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	QAPAPTVIRDPPSITPAVKSPLPGPSEEK	R	T	95.00%	6.12	0.152	0	0	1	0	2	3,059.58	439	467	TRUE	
SNU216LR_PC3_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.89	0.208	0	1	0	0	2	1,699.67	424	438	TRUE	
SNU216LR_PC3_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	94.80%	5.81	0.0474	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216LR_PC3_02	Histone acetyltransferase MYST2	IPI00180764	70,644.50	99.80%	2	2	2	0.01%	4.42%	DMSLKDSGSDLSHRPK	K	R	95.00%	2.92	0.298	0	0	1	0	2	1,852.83	156	171	TRUE	
SNU216LR_PC3_02	Histone acetyltransferase MYST2	IPI00180764	70,644.50	99.80%	2	2	2	0.01%	4.42%	SQQQPTPVTPK	R	K	95.00%	2.23	0.229	0	1	0	0	2	1,290.61	80	90	TRUE	
SNU216LR_PC3_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.80%	2	2	2	0.01%	3.16%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	2.98	0.292	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216LR_PC3_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.80%	2	2	2	0.01%	3.16%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.72	0.423	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC3_02	Tubulin--tyrosine ligase-like protein 12	IPI00029048	74,403.70	100.00%	1	1	1	0.01%	4.04%	SSPGQTPEEGAQALAEFAALHGPALR	R	A	95.00%	5.02	0.445	0	0	1	0	2	2,685.27	15	40	TRUE	
SNU216LR_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	9	11	0.06%	22.20%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	2.99	0.523	0	2	1	0	2	2,033.80	298	317	TRUE	
SNU216LR_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	9	11	0.06%	22.20%	FIHQQPQSSSPVYGSSAK	R	T	94.20%	3.74	0.11	0	1	1	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	9	11	0.06%	22.20%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	6.03	0.397	0	0	0	1	2	4,229.03	209	247	TRUE	
SNU216LR_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	9	11	0.06%	22.20%	QKSAEPSPTVMSTSLGSNLSELDR	K	L	95.00%	3.4	0.217	0	0	1	0	2	2,694.17	124	147	TRUE	
SNU216LR_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	9	11	0.06%	22.20%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.28	0.519	0	2	0	0	2	1,632.64	302	317	TRUE	
SNU216LR_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	9	11	0.06%	22.20%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	4.22	0.264	0	1	1	0	2	3,019.41	318	347	TRUE	
SNU216LR_PC3_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	ARVDHGAEIITQSPGR	K	S	95.00%	3.55	0.129	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216LR_PC3_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.87	0.0481	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216LR_PC3_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	VDHGAEIITQSPGR	R	S	95.00%	3.5	0.464	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC3_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	9.48%	ALASEKSPTADAKPAPK	K	R	95.00%	3.45	0.322	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC3_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	9.48%	IPSKEEEADMSSPTQR	K	T	95.00%	3.78	0.363	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC3_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	9.48%	NSLSPVQATQKPLVSK	R	K	95.00%	2.68	0.353	0	1	0	0	2	1,776.93	134	149	TRUE	
SNU216LR_PC3_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	4	6	6	0.03%	7.50%	ESPEGSYTDDANQEVR	R	G	95.00%	3.75	0.549	0	1	0	0	2	1,876.72	495	510	TRUE	
SNU216LR_PC3_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	4	6	6	0.03%	7.50%	HSSDINHLVTQGRESPEGSYTDDANQEVR	R	G	91.10%	5.09	0.0602	0	0	1	0	2	3,321.44	482	510	TRUE	
SNU216LR_PC3_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	4	6	6	0.03%	7.50%	RHSSDINHLVTQGR	R	E	95.00%	3.32	0.302	0	0	1	1	2	1,699.80	481	494	TRUE	
SNU216LR_PC3_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	4	6	6	0.03%	7.50%	TISDGTISASK	R	Q	95.00%	2.06	0.379	1	1	0	0	2	1,159.52	293	303	TRUE	
SNU216LR_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	3	4	4	0.02%	11.00%	AGAAAGDSDEESRADDK	R	G	95.00%	4.02	0.42	0	1	0	0	2	1,744.67	330	346	TRUE	
SNU216LR_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	3	4	4	0.02%	11.00%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	4.63	0.412	0	1	1	0	2	2,210.89	537	555	TRUE	
SNU216LR_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	3	4	4	0.02%	11.00%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	5.3	0.375	0	0	1	0	2	2,665.24	503	530	TRUE	
SNU216LR_PC3_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	DEILPTTPISEQK	K	G	80.10%	2.45	0.147	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC3_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	3.59	0.349	0	0	0	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC3_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	2	3	3	0.02%	4.43%	SEAEEGEVRTPTK	R	I	95.00%	2.36	0.317	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216LR_PC3_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	2	3	3	0.02%	4.43%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.73	0.33	0	0	1	1	2	2,794.21	430	455	TRUE	
SNU216LR_PC3_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	98.70%	1	1	1	0.01%	4.50%	AVSDSFGPGEWDDR	R	K	95.00%	2.19	0.234	0	1	0	0	2	1,617.62	79	92	TRUE	
SNU216LR_PC3_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	99.70%	2	2	2	0.01%	4.58%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.24	0.304	0	0	1	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC3_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	99.70%	2	2	2	0.01%	4.58%	SEDESETEDEEEK	R	S	93.50%	1.88	0.277	0	1	0	0	2	1,635.54	668	680	TRUE	
SNU216LR_PC3_02	CTP synthase	IPI00290142	66,690.70	100.00%	1	1	2	0.01%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	95.00%	3.92	0.0457	0	2	0	0	2	2,327.01	571	591	TRUE	
SNU216LR_PC3_02	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	99.80%	2	2	2	0.01%	6.02%	GDSESEEDEDLEVPVPSR	K	F	95.00%	3.85	0.576	0	1	0	0	2	2,148.79	75	92	TRUE	
SNU216LR_PC3_02	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	99.80%	2	2	2	0.01%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	3	0.419	0	1	0	0	2	2,633.05	70	92	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.03%	16.40%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.82	0.501	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC3_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.03%	16.40%	QSSPSGSSEQLVR	R	R	95.00%	1.97	0.353	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC3_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.03%	16.40%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	95.00%	7.75	0.0105	0	0	2	0	2	3,066.27	16	41	TRUE	
SNU216LR_PC3_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.03%	16.40%	STGSPTQETQAPFIAK	K	R	95.00%	3.2	0.413	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC3_02	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	NVSAGTQDVPSPPSDYVER	K	V	95.00%	4.1	0.355	0	1	0	0	2	2,097.91	246	264	TRUE	
SNU216LR_PC3_02	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	STPVPEVVQELPLTSPVDDFRQPR	K	Y	95.00%	3.35	0.269	0	0	1	0	2	2,786.38	290	313	TRUE	
SNU216LR_PC3_02	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	99.80%	2	3	3	0.02%	5.44%	EKGSETDSAQDQPVK	K	M	95.00%	3.21	0.423	0	1	0	0	2	1,698.72	66	80	TRUE	
SNU216LR_PC3_02	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	99.80%	2	3	3	0.02%	5.44%	GGLSPANDTGAK	K	K	95.00%	2.26	0.451	1	1	0	0	2	1,167.50	44	55	TRUE	
SNU216LR_PC3_02	CDNA FLJ32841 fis, clone TESTI2003325	IPI00065276,IPI00332071	60,183.50	98.70%	1	1	1	0.01%	2.47%	AAGSPSPLPAPDPAPK	R	S	95.00%	3.03	0.317	0	1	0	0	2	1,552.74	497	512	TRUE	
SNU216LR_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	7	8	8	0.05%	10.40%	ERSPALKSPLQSVVVR	R	R	95.00%	3.08	0.285	0	1	1	0	2	1,925.96	246	261	TRUE	
SNU216LR_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	7	8	8	0.05%	10.40%	HGLAHDEMKSPR	K	E	95.00%	2.43	0.263	0	0	1	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	7	8	8	0.05%	10.40%	HGLAHDEMKSPREPGYK	K	A	95.00%	2.72	0.253	0	0	0	1	2	2,031.91	689	705	TRUE	
SNU216LR_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	7	8	8	0.05%	10.40%	IDISPSTFR	R	K	95.00%	2.09	0.258	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216LR_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	7	8	8	0.05%	10.40%	KSPVGKSPPSTGSTYGSSQK	K	E	95.00%	4.15	0.411	0	0	1	0	2	2,059.97	314	333	TRUE	
SNU216LR_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	7	8	8	0.05%	10.40%	TDSEKPFRGSQSPK	K	R	94.50%	2.23	0.212	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216LR_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	7	8	8	0.05%	10.40%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	3.3	0.247	0	0	1	0	2	2,717.06	922	944	TRUE	
SNU216LR_PC3_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	4	4	4	0.02%	7.33%	EAEDSDSDDNIKR	K	G	95.00%	2.44	0.337	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC3_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	4	4	4	0.02%	7.33%	HQASDSENEELPKPR	R	I	95.00%	2.78	0.393	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216LR_PC3_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	4	4	4	0.02%	7.33%	HQASDSENEEPPKPR	R	M	95.00%	2.53	0.478	0	1	0	0	2	1,880.72	193	207	TRUE	
SNU216LR_PC3_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	4	4	4	0.02%	7.33%	TIASDSEEEAGKELSDK	K	K	85.40%	2.07	0.201	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216LR_PC3_02	Stress-induced-phosphoprotein 1	IPI00013894	62,642.10	100.00%	1	1	1	0.01%	1.47%	HDSPEDVK	R	R	95.00%	2.3	0.218	0	1	0	0	2	1,006.39	479	486	TRUE	
SNU216LR_PC3_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	4	5	0.03%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	3.12	0.214	0	1	1	0	2	1,666.81	31	44	TRUE	
SNU216LR_PC3_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	4	5	0.03%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.29	0.315	0	1	2	0	2	1,911.83	45	62	TRUE	
SNU216LR_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	LSPSPTSQR	R	S	82.80%	1.63	0.262	0	1	0	0	2	1,052.48	389	397	TRUE	
SNU216LR_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	NKSNEDQSMGNWQIK	R	R	95.00%	4.13	0.453	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216LR_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	SGAQASSTPLSPTR	R	I	95.00%	3.15	0.345	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216LR_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	SNEDQSMGNWQIK	K	R	95.00%	2.42	0.258	0	1	0	0	2	1,616.64	458	470	TRUE	
SNU216LR_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	SVTVVEDDEDEDGDDLLHHHHVSGSR	R	-	95.00%	3.78	0.263	0	0	0	1	2	2,979.24	546	571	TRUE	
SNU216LR_PC3_02	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.70%	2	2	2	0.01%	3.56%	ALPNNTSSSPQPK	R	K	95.00%	2.54	0.28	0	1	0	0	2	1,420.65	307	319	TRUE	
SNU216LR_PC3_02	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.70%	2	2	2	0.01%	3.56%	RALPNNTSSSPQPK	K	K	93.90%	2.44	0.177	0	1	0	0	2	1,576.75	306	319	TRUE	
SNU216LR_PC3_02	26S proteasome non-ATPase regulatory subunit 1	IPI00185374	52,775.10	100.00%	1	1	1	0.01%	2.86%	QTRTASDMVSTSR	K	I	95.00%	2.23	0.298	0	0	1	0	2	1,519.66	52	64	TRUE	
SNU216LR_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	8	12	20	0.12%	9.93%	EELMSSDLEETAGSTSIPK	K	R	95.00%	3.17	0.399	0	4	2	0	2	2,103.90	515	533	TRUE	
SNU216LR_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	8	12	20	0.12%	9.93%	EEPVSSGPEEAVGK	K	S	95.00%	3	0.407	0	2	0	0	2	1,494.64	565	578	TRUE	
SNU216LR_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	8	12	20	0.12%	9.93%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.34	0.41	0	1	2	0	2	1,936.80	562	578	TRUE	
SNU216LR_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	8	12	20	0.12%	9.93%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	4.01	0.352	0	2	2	0	2	1,984.93	561	578	TRUE	
SNU216LR_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	8	12	20	0.12%	9.93%	KSTPKEETVNDPEEAGHR	K	S	95.00%	4.72	0.444	0	0	1	0	2	2,103.93	536	553	TRUE	
SNU216LR_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	8	12	20	0.12%	9.93%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.32	0	0	4	0	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC3_02	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	100.00%	1	2	2	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	3.42	0.467	0	1	1	0	2	1,498.67	12	23	TRUE	
SNU216LR_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	5	7	9	0.05%	11.00%	AAESETPGKSPEK	K	K	95.00%	2	0.301	0	1	0	0	2	1,490.58	418	430	TRUE	
SNU216LR_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	5	7	9	0.05%	11.00%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.66	0.53	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	5	7	9	0.05%	11.00%	ATNESEDEIPQLVPIGKK	K	T	95.00%	3.31	0.438	0	1	1	0	2	2,048.00	357	374	TRUE	
SNU216LR_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	5	7	9	0.05%	11.00%	KALPASETPK	R	A	95.00%	2.41	0.262	0	1	0	0	2	1,121.56	408	417	TRUE	
SNU216LR_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	5	7	9	0.05%	11.00%	KSPAKSPNPSTPR	K	G	95.00%	3.23	0.327	0	3	0	0	2	1,526.68	391	403	TRUE	
SNU216LR_PC3_02	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	99.80%	2	3	3	0.02%	3.24%	EGRGESENAGTNQETR	R	S	95.00%	2.84	0.329	0	1	1	0	2	1,814.73	426	441	TRUE	
SNU216LR_PC3_02	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	99.80%	2	3	3	0.02%	3.24%	GESENAGTNQETR	R	S	95.00%	2.83	0.396	0	1	0	0	2	1,472.57	429	441	TRUE	
SNU216LR_PC3_02	CDNA FLJ46302 fis, clone TESTI4036048, highly si	IPI00183274,IPI00183530,IP	63,023.80	100.00%	1	1	1	0.01%	1.97%	RFSDFLGLYEK	R	L	95.00%	2.44	0.268	0	1	0	0	2	1,454.67	186	196	TRUE	
SNU216LR_PC3_02	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.40%	2	2	2	0.01%	2.95%	NSLTGEEGQLAR	R	V	95.00%	1.82	0.318	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216LR_PC3_02	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.40%	2	2	2	0.01%	2.95%	RNSLTGEEGQLAR	R	V	87.70%	2.2	0.178	0	1	0	0	2	1,510.70	110	122	TRUE	
SNU216LR_PC3_02	protein kinase, AMP-activated, alpha 1 catalytic su	IPI00011891,IPI00410287	65,524.40	100.00%	1	1	1	0.01%	4.47%	DFYLATSPPDSFLDDHHLTRPHPER	K	V	95.00%	3.68	0.342	0	0	1	0	2	3,043.37	365	389	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.80%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.55	0.395	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.80%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLRR	K	A	95.00%	3.09	0.294	0	0	1	0	2	2,265.04	239	258	TRUE	
SNU216LR_PC3_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	3	3	0.02%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.81	0.378	0	1	1	0	2	2,020.82	45	61	TRUE	
SNU216LR_PC3_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	3	3	0.02%	2.97%	REEQTDTSDGESVTHHIR	R	R	82.80%	3.6	0.104	0	0	1	0	2	2,256.89	44	61	TRUE	
SNU216LR_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.30%	GNSRPGTPSAEGGSTSSTLR	R	A	95.00%	4.01	0.456	0	1	1	0	2	1,998.89	383	402	TRUE	
SNU216LR_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.30%	GVDEQSDSSEESEEEKPPEEDKEEEEEK	K	K	95.00%	3.54	0.545	0	0	2	0	2	3,492.22	300	327	TRUE	
SNU216LR_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.30%	IHDLEDDLEMSSDASDASGEEGGR	R	V	95.00%	4.99	0.55	0	1	1	0	2	2,615.01	207	230	TRUE	
SNU216LR_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.30%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	5.1	0.546	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216LR_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.30%	STPQPPSGKTTPNSGDVQVTEDAVR	K	R	95.00%	2.84	0.207	0	0	1	0	2	2,648.22	436	460	TRUE	
SNU216LR_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.30%	TTPNSGDVQVTEDAVR	K	R	95.00%	3.29	0.389	0	1	0	0	2	1,768.78	445	460	TRUE	
SNU216LR_PC3_02	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.80%	2	2	2	0.01%	3.18%	SPPTQVAISSDSAR	R	K	95.00%	2.63	0.18	0	1	0	0	2	1,495.68	201	214	TRUE	
SNU216LR_PC3_02	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.80%	2	2	2	0.01%	3.18%	VTRSPPTQVAISSDSAR	R	K	95.00%	3.42	0.282	0	0	1	0	2	1,851.90	198	214	TRUE	
SNU216LR_PC3_02	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	99.30%	2	2	2	0.01%	5.26%	NMAPSQQSPVR	R	T	85.80%	2	0.19	0	1	0	0	2	1,294.56	220	230	TRUE	
SNU216LR_PC3_02	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	99.30%	2	2	2	0.01%	5.26%	TTPPTQKPPSPPMSGK	R	G	95.00%	2.71	0.465	0	1	0	0	2	1,730.82	174	189	TRUE	
SNU216LR_PC3_02	Isoform 1 of CCR4-NOT transcription complex sul	IPI00005011,IPI00017733,IP	54,307.20	99.80%	2	2	2	0.01%	8.33%	SLSQGTQLPSHVTPTTGVPTMSLHTPPSPSR	R	G	95.00%	4.19	0.191	0	0	0	1	2	3,278.59	99	129	TRUE	
SNU216LR_PC3_02	Isoform 1 of CCR4-NOT transcription complex sul	IPI00005011,IPI00017733,IP	54,307.20	99.80%	2	2	2	0.01%	8.33%	TNSMSSSGLGSPNR	R	S	95.00%	2.82	0.409	0	1	0	0	2	1,474.60	155	168	TRUE	
SNU216LR_PC3_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	3	3	0.02%	3.04%	SRSPLELEPEAK	R	K	95.00%	2.67	0.292	0	1	1	0	2	1,435.68	24	35	TRUE	
SNU216LR_PC3_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	3	3	0.02%	3.04%	SRSPLELEPEAKK	R	L	95.00%	2.7	0.249	0	0	1	0	2	1,563.78	24	36	TRUE	
SNU216LR_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	FASDDEHDEHDENGATGPVK	K	R	84.10%	2.89	0.169	0	0	1	0	2	2,249.86	364	383	TRUE	
SNU216LR_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.35	0.411	0	1	1	2	2	2,405.96	364	384	TRUE	
SNU216LR_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	3.84	0.47	0	0	1	0	2	2,479.00	362	383	TRUE	
SNU216LR_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.14	0.414	0	0	2	2	2	2,635.11	362	384	TRUE	
SNU216LR_PC3_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	6	6	0.03%	1.60%	AQSLVISPPAPSPR	K	K	95.00%	2.77	0.273	0	1	0	0	2	1,499.76	573	586	TRUE	
SNU216LR_PC3_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	6	6	0.03%	1.60%	MKTPVQYSQQQNSPQK	K	H	95.00%	3.95	0.442	0	1	1	0	2	1,971.90	345	360	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	6	6	0.03%	1.60%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.98	0.469	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC3_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	6	6	0.03%	1.60%	TPVQYSQQQNSPQK	K	H	95.00%	3.44	0.372	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC3_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.03%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.74	0.369	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216LR_PC3_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.03%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.87	0.425	0	2	1	0	2	1,767.78	38	56	TRUE	
SNU216LR_PC3_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.03%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.49	0.285	0	1	1	0	2	2,132.89	38	58	TRUE	
SNU216LR_PC3_02	Pre-mRNA-splicing factor PRP17	IPI00026307	65,522.00	99.00%	1	1	1	0.01%	6.04%	SPSSKPSLAVAVDSAPEVAVKEDLETGVHLD	R	E	80.80%	6.23	0.0066	0	0	0	1	2	3,622.83	43	77	TRUE	
SNU216LR_PC3_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	100.00%	2	3	4	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	2.98	0.307	0	2	0	0	2	1,529.66	311	325	TRUE	
SNU216LR_PC3_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	100.00%	2	3	4	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	3.47	0.326	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.06%	HGSDPAFAPGPR	R	G	95.00%	2.57	0.421	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.06%	KEEASSPGAGEGPAEEGTR	K	D	95.00%	2.62	0.435	0	1	0	0	2	1,938.81	1142	1160	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.06%	RGSLTLTISGESPK	R	A	95.00%	3.68	0.342	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.06%	RGSPTTGFIEQKGSPTSAYPER	R	R	82.20%	4.11	0.0759	0	0	1	0	2	2,526.11	890	911	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.06%	RGSPVPPVPER	R	R	95.00%	2.33	0.254	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.06%	RLSLGQGDSTEAATEER	R	G	95.00%	3.75	0.471	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC3_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	100.00%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.54	0.365	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC3_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	100.00%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	4.13	0.342	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC3_02	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	17.90%	ATSRGSNSGMDSNIDLTIVEDEEEESVALEQ	K	V	93.30%	6.66	0.0149	0	0	1	0	2	3,732.64	359	392	TRUE	
SNU216LR_PC3_02	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	17.90%	GSNSGMDSNIDLTIVEDEEEESVALEQAQK	R	V	95.00%	5.19	0.296	0	0	1	0	2	3,317.43	363	392	TRUE	
SNU216LR_PC3_02	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	17.90%	QEKPSSPSPMPSSTPSPSLNLGNTEEAIR	R	D	90.70%	5.93	0.0298	0	0	1	0	2	3,118.44	20	48	TRUE	
SNU216LR_PC3_02	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	17.90%	SSPFKVSPLTFGR	K	K	95.00%	2.1	0.232	0	1	0	0	2	1,502.74	287	299	TRUE	
SNU216LR_PC3_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	99.80%	2	2	2	0.01%	5.51%	RQSSSYDDPWK	R	I	95.00%	2.25	0.197	0	1	0	0	2	1,448.58	218	228	TRUE	
SNU216LR_PC3_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	99.80%	2	2	2	0.01%	5.51%	TGSDHTNPTSPLLVKPSDLLEENKINSSVK	R	F	95.00%	3.64	0.174	0	0	0	1	2	3,300.64	421	450	TRUE	
SNU216LR_PC3_02	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	99.80%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	5.06	0.0339	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216LR_PC3_02	Sphingosine-1-phosphate lyase 1	IPI00099463	63,525.90	100.00%	1	1	1	0.01%	5.81%	NMVAELSSVFLDSLYSTDTVTQGSQMNGS	R	-	95.00%	5.38	0.258	0	0	1	0	2	3,636.62	536	568	TRUE	
SNU216LR_PC3_02	UV excision repair protein RAD23 homolog B	IPI00008223	43,171.10	100.00%	1	1	1	0.01%	7.09%	QEKPAEKPAETPVATSPTATDSTSGDSSR	K	S	95.00%	4.78	0.0075	0	1	0	0	2	3,025.36	145	173	TRUE	
SNU216LR_PC3_02	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	3	4	4	0.02%	4.78%	EPEAASSRGSPVR	R	V	92.60%	2.46	0.178	0	1	0	0	2	1,422.64	37	49	TRUE	
SNU216LR_PC3_02	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	3	4	4	0.02%	4.78%	EREPEAASSRGSPVR	R	V	95.00%	2.77	0.219	0	0	1	0	2	1,707.78	35	49	TRUE	
SNU216LR_PC3_02	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	3	4	4	0.02%	4.78%	EREVDEDSEPER	R	E	95.00%	2.75	0.321	0	1	1	0	2	1,569.61	75	86	TRUE	
SNU216LR_PC3_02	Histone deacetylase 1	IPI00013774	55,104.10	99.80%	1	2	9	0.05%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	I	95.00%	6.63	0.524	0	0	5	4	2	3,743.57	372	404	TRUE	
SNU216LR_PC3_02	Glutamate-rich protein 1	IPI00329142	48,984.70	99.80%	2	2	2	0.01%	9.03%	ARQEEGADASEEDPTPAGEEDVKDAR	R	E	95.00%	4.64	0.395	0	0	1	0	2	2,852.19	245	270	TRUE	
SNU216LR_PC3_02	Glutamate-rich protein 1	IPI00329142	48,984.70	99.80%	2	2	2	0.01%	9.03%	EEDGADASEEDLTR	R	A	95.00%	2.67	0.253	0	1	0	0	2	1,616.60	231	244	TRUE	
SNU216LR_PC3_02	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	3.25	0.262	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216LR_PC3_02	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	4.44	0.445	0	0	1	0	2	2,687.26	674	699	TRUE	
SNU216LR_PC3_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.61	0.156	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216LR_PC3_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	EEVVGGDDSDGLR	R	A	95.00%	2.64	0.285	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216LR_PC3_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	7.16	0.136	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216LR_PC3_02	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.80%	2	2	2	0.01%	4.99%	EDVEVAESPLR	R	V	95.00%	2.82	0.288	0	1	0	0	2	1,323.58	510	520	TRUE	
SNU216LR_PC3_02	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.80%	2	2	2	0.01%	4.99%	NQSPTEAEKPASSSLPSSPPPQLLTR	K	N	95.00%	4.49	0.262	0	0	1	0	2	2,799.36	33	58	TRUE	
SNU216LR_PC3_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	3	4	4	0.02%	8.32%	DLTHSDSESSLHMSDR	R	Q	95.00%	4.68	0.0737	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216LR_PC3_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	3	4	4	0.02%	8.32%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	4.64	0.51	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216LR_PC3_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	3	4	4	0.02%	8.32%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	4.61	0.0253	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216LR_PC3_02	136 kDa protein	IPI00005625	135,683.90	99.10%	2	2	2	0.01%	2.85%	GEEGSDDDETENGPKPK	K	K	82.20%	2.05	0.238	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC3_02	136 kDa protein	IPI00005625	135,683.90	99.10%	2	2	2	0.01%	2.85%	KGSGSEQEGEDEEGGER	R	K	95.00%	2.17	0.473	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216LR_PC3_02	Bifunctional coenzyme A synthase	IPI00184821	62,329.50	100.00%	1	1	1	0.01%	6.91%	LASVLLYSDYGIGEVPVEPLDVPLPSTIRPASF	R	Q	95.00%	8.81	0.0424	0	0	1	0	2	4,084.13	147	185	TRUE	
SNU216LR_PC3_02	PDZ and LIM domain protein 5	IPI00007935	63,839.90	99.80%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	3.73	0.402	0	1	0	0	2	1,630.88	101	115	TRUE	
SNU216LR_PC3_02	insulin-like growth factor 2 mRNA binding protein	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	2	4	0.02%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3.48	0.43	0	3	1	0	2	1,980.90	152	168	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	1	1	1	0.01%	6.61%	IESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	4.07	0.502	0	1	0	0	2	2,567.11	103	124	TRUE	
SNU216LR_PC3_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	5	0.03%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	4.78	0.395	0	1	1	0	2	2,186.95	50	68	TRUE	
SNU216LR_PC3_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	5	0.03%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.64	0.458	0	2	1	0	2	1,764.73	99	114	TRUE	
SNU216LR_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	4.54%	DNSPPPAFKPEPPK	R	A	95.00%	2.22	0.324	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	4.54%	ERPSSREDTPSR	K	L	95.00%	2.53	0.361	0	1	0	0	2	1,496.65	437	448	TRUE	
SNU216LR_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	4.54%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.23	0.533	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	4.54%	SRSWEDSPER	R	G	95.00%	2.47	0.169	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC3_02	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	2	2	3	0.02%	5.62%	ILDPNTGEPAPVLSSPPPADVSTFLAFPSPEK	K	L	89.90%	5.63	0.0376	0	0	1	0	2	3,450.62	414	445	TRUE	
SNU216LR_PC3_02	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	2	2	3	0.02%	5.62%	KILDPNTGEPAPVLSSPPPADVSTFLAFPSPE	R	L	95.00%	6.39	0.054	0	0	2	0	2	3,498.74	413	445	TRUE	
SNU216LR_PC3_02	Cytoplasmic protein NCK1	IPI00028065	42,864.40	98.90%	1	1	1	0.01%	5.84%	RKPSVPDSASPADDSFVDPGER	K	L	95.00%	4.18	0.287	0	0	1	0	2	2,409.07	82	103	TRUE	
SNU216LR_PC3_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	4	0.02%	4.65%	QSVDKVTSPTKV	K	-	94.10%	2.78	0.154	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC3_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	4	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.2	0.267	0	2	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.71	0.362	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVIQ	K	H	95.00%	4.8	0.321	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.79	0.29	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC3_02	HSPC121	IPI00008998	44,424.70	99.80%	1	1	1	0.01%	3.22%	WLDESDAEMELR	R	A	95.00%	2.86	0.389	0	1	0	0	2	1,573.62	110	121	TRUE	
SNU216LR_PC3_02	Lamin-B1	IPI00217975	66,278.40	100.00%	2	3	3	0.02%	7.18%	AGGPTTPLSPTR	K	L	95.00%	1.54	0.278	1	1	0	0	2	1,314.55	14	25	TRUE	
SNU216LR_PC3_02	Lamin-B1	IPI00217975	66,278.40	100.00%	2	3	3	0.02%	7.18%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	4.38	0.337	0	0	1	0	2	3,491.54	547	576	TRUE	
SNU216LR_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	EGHGSSSFDRELER	R	E	95.00%	2.59	0.279	0	1	0	0	2	1,685.69	173	186	TRUE	
SNU216LR_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	RRSQSIEQESQEK	R	Q	95.00%	3.33	0.313	0	2	1	0	2	1,684.77	414	426	TRUE	
SNU216LR_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	RSQSIEQESQEK	R	Q	95.00%	3.55	0.0842	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216LR_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	SQSIEQESQEK	R	Q	95.00%	2.29	0.383	0	2	0	0	2	1,452.53	416	426	TRUE	
SNU216LR_PC3_02	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	4	7	0.04%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYK	R	E	95.00%	4.16	0.494	0	2	1	0	2	2,743.07	430	453	TRUE	
SNU216LR_PC3_02	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	4	7	0.04%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYKEAK	R	A	95.00%	6.24	0.128	0	1	3	0	2	3,071.25	430	456	TRUE	
SNU216LR_PC3_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	3.92%	AHAWPSPYK	R	D	95.00%	1.93	0.258	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216LR_PC3_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	3.92%	AHAWPSPYKDYEVK	R	K	95.00%	3.2	0.3	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC3_02	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	2	2	2	0.01%	5.04%	NHSDSSTSESEVSSVSPLK	K	N	95.00%	5.93	0.0874	0	1	0	0	2	2,056.87	211	229	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	2	2	2	0.01%	5.04%	NHSDSSTSESEVSSVSPLKNK	K	H	95.00%	4.34	0.452	0	0	1	0	2	2,299.01	211	231	TRUE	
SNU216LR_PC3_02	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	ETSPQVKGEEMPAGKDQEASR	K	G	95.00%	3.73	0.316	0	0	1	0	2	2,354.03	109	129	TRUE	
SNU216LR_PC3_02	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	RAPSSPVAKPGPVK	K	T	95.00%	2.19	0.408	0	1	0	0	2	1,470.78	11	24	TRUE	
SNU216LR_PC3_02	Nuclear receptor-binding protein	IPI00604756	59,844.60	100.00%	3	4	4	0.02%	8.41%	NGIYPLTAFGLPRPQQPQQEEVTSPVVPPS\	R	T	95.00%	4.94	0.428	0	0	1	0	2	3,553.81	399	430	TRUE	
SNU216LR_PC3_02	Nuclear receptor-binding protein	IPI00604756	59,844.60	100.00%	3	4	4	0.02%	8.41%	TPTPEPAEVETR	K	K	95.00%	3.01	0.544	0	1	0	0	2	1,406.62	431	442	TRUE	
SNU216LR_PC3_02	Nuclear receptor-binding protein	IPI00604756	59,844.60	100.00%	3	4	4	0.02%	8.41%	TPTPEPAEVETRK	K	V	95.00%	3.12	0.303	0	1	1	0	2	1,534.72	431	443	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	99.90%	1	1	1	0.01%	2.81%	TNTMNGSKSPVISRPK	R	S	95.00%	2.5	0.283	0	0	1	0	2	1,796.87	747	762	TRUE	
SNU216LR_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	7	0.04%	9.92%	DYDEEEQGYDSEKEK	R	K	95.00%	3.37	0.208	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	7	0.04%	9.92%	DYDEEEQGYDSEKEKK	R	E	95.00%	3.82	0.366	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216LR_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	7	0.04%	9.92%	ESKVNGDDHHEEDMDMSD	R	-	95.00%	2.15	0.297	0	0	1	0	2	2,185.73	407	424	TRUE	
SNU216LR_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	7	0.04%	9.92%	LNHVAAGLVSPSLK	K	S	95.00%	2.97	0.455	0	1	1	0	2	1,485.78	138	151	TRUE	
SNU216LR_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	7	0.04%	9.92%	VNGDDHHEEDMDMSD	K	-	95.00%	2.74	0.538	0	2	0	0	2	1,825.57	410	424	TRUE	
SNU216LR_PC3_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	1.67%	EESYSPSKDR	K	N	95.00%	1.98	0.307	0	1	0	0	2	1,277.50	428	437	TRUE	
SNU216LR_PC3_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	1.67%	IESDEEEDFENVGK	R	V	95.00%	2.98	0.453	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216LR_PC3_02	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	1	1	3	0.02%	3.25%	ASGEMASAQYITAALR	R	D	95.00%	2.93	0.405	0	3	0	0	2	1,719.78	107	122	TRUE	
SNU216LR_PC3_02	Chromodomain Y-like protein	IPI00293963,IPI00480205,IP	66,482.20	99.80%	1	1	1	0.01%	1.51%	ILVPKSPVK	K	S	95.00%	2.17	0.378	0	1	0	0	2	1,060.62	196	204	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	DKEVSDDEAEEK	R	E	95.00%	2.43	0.275	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	DKEVSDDEAEEKEDK	R	E	95.00%	3.84	0.319	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	ERDKEVSDDEAEEK	K	E	95.00%	3.68	0.39	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.54	0.421	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.89	0.412	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC3_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	4	0.02%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.25	0.334	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC3_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	4	0.02%	15.20%	NEGSESAPEGQAQQR	K	R	95.00%	2.38	0.407	0	2	0	0	2	1,747.63	170	184	TRUE	
SNU216LR_PC3_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	4	0.02%	15.20%	NYQQNYQNSESGEK	R	N	95.00%	2.71	0.363	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216LR_PC3_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	3	8	0.05%	6.20%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.96	0.569	0	2	5	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC3_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	3	8	0.05%	6.20%	QNGSNDSDRYSDNEEGK	R	K	95.00%	2.05	0.361	0	1	0	0	2	1,994.74	173	189	TRUE	
SNU216LR_PC3_02	jub, ajuba homolog isoform 1	IPI00063605	56,934.60	99.80%	2	2	2	0.01%	8.18%	HSYPPALGSPGALAGAGVGAAGPLER	K	R	95.00%	3.88	0.354	0	0	1	0	2	2,453.20	229	254	TRUE	
SNU216LR_PC3_02	jub, ajuba homolog isoform 1	IPI00063605	56,934.60	99.80%	2	2	2	0.01%	8.18%	SSFASSSASDASKPSSPR	R	G	95.00%	4.08	0.56	0	1	0	0	2	1,835.78	122	139	TRUE	
SNU216LR_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.03%	14.10%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.96	0.569	0	2	5	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.03%	14.10%	HASPILPITEFSDIPR	K	R	95.00%	3.35	0.35	0	1	1	0	2	1,872.93	304	319	TRUE	
SNU216LR_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.03%	14.10%	QNGSNDSDRYSDNEEDSK	R	I	95.00%	2.97	0.331	0	1	0	0	2	2,139.77	174	191	TRUE	
SNU216LR_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	6	0.03%	14.10%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	5.1	0.242	0	1	2	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC3_02	Isoform 1 of Vang-like protein 1	IPI00031195,IPI00386349	59,977.00	100.00%	2	3	3	0.02%	3.44%	RDSSHNELYYEEAEHER	R	R	95.00%	3.81	0.431	0	0	0	1	2	2,243.90	336	352	TRUE	
SNU216LR_PC3_02	Isoform 1 of Vang-like protein 1	IPI00031195,IPI00386349	59,977.00	100.00%	2	3	3	0.02%	3.44%	RRDSSHNELYYEEAEHER	R	R	95.00%	4.11	0.361	0	0	1	1	2	2,400.00	335	352	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein raver-1	IPI00217661	77,862.90	99.80%	1	1	1	0.01%	1.76%	HKMSPPPSGFGER	R	S	95.00%	3.06	0.25	0	0	1	0	2	1,506.66	614	626	TRUE	
SNU216LR_PC3_02	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	7	0.04%	7.42%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	3.3	0.561	0	2	3	0	2	1,957.90	293	311	TRUE	
SNU216LR_PC3_02	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	7	0.04%	7.42%	SPSPPDGSPAATPEIR	K	V	95.00%	2.72	0.451	0	1	0	0	2	1,658.74	296	311	TRUE	
SNU216LR_PC3_02	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	7	0.04%	7.42%	VNHEPEPAGGATPGATLPKSPSQLR	R	K	95.00%	4.78	0.532	0	0	1	0	2	2,591.26	312	336	TRUE	
SNU216LR_PC3_02	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	3	4	0.02%	9.16%	RPEGPGAQAPSSPR	R	V	95.00%	3.36	0.358	0	1	1	0	2	1,486.68	504	517	TRUE	
SNU216LR_PC3_02	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	3	4	0.02%	9.16%	SSPGQPEAGPEGAQERPSQAAPAVEAEGP(	K	K	95.00%	4.69	0.57	0	0	2	0	2	3,564.60	18	53	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 2 subunit 3	IPI00297982	50,979.00	100.00%	1	1	1	0.01%	7.01%	ESQAKEQYEQILAFVQGTVAEGAPIIPISAQL	K	Y	95.00%	4.14	0.209	0	0	1	0	2	3,716.82	196	228	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.50%	2	2	2	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	3.32	0.237	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.50%	2	2	2	0.01%	2.59%	MANSSPVLSK	K	V	90.20%	2.26	0.182	0	1	0	0	2	1,113.50	214	223	TRUE	
SNU216LR_PC3_02	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	AGVGQSWKENSPLNVS	K	-	95.00%	3.19	0.224	0	1	0	0	2	1,752.80	280	295	TRUE	
SNU216LR_PC3_02	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	3	0.385	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216LR_PC3_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	3	4	4	0.02%	8.80%	RASDDGKLTDPSK	R	T	95.00%	2.55	0.33	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216LR_PC3_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	3	4	4	0.02%	8.80%	SRWSGSQQVEQPTGSVLWMAPEVIR	K	M	95.00%	5.08	0.531	0	0	1	0	2	2,908.38	494	518	TRUE	
SNU216LR_PC3_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	3	4	4	0.02%	8.80%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.82	0.455	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC3_02	Something about silencing protein 10	IPI00006900	54,559.20	99.80%	1	1	1	0.01%	7.52%	AGPTLTDENGDDLGLPPSPGDTSYYQDQVI	K	S	95.00%	5.68	0.148	0	0	1	0	2	3,972.67	20	55	TRUE	
SNU216LR_PC3_02	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	1	2	2	0.01%	7.24%	QASEQENEDSMAEAPESNHPEDQETMETI!	K	G	95.00%	6.21	0.549	0	0	1	1	2	4,177.64	296	331	TRUE	
SNU216LR_PC3_02	Zinc finger protein 148	IPI00010833	88,976.40	99.80%	2	2	2	0.01%	2.90%	GGLLTSEEDSGFSTSPK	K	D	95.00%	2.88	0.301	0	1	0	0	2	1,791.77	292	308	TRUE	
SNU216LR_PC3_02	Zinc finger protein 148	IPI00010833	88,976.40	99.80%	2	2	2	0.01%	2.90%	GGLLTSEEDSGFSTSPKDNSLPK	K	K	95.00%	3.67	0.211	0	0	1	0	2	2,446.10	292	314	TRUE	
SNU216LR_PC3_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	1	1	1	0.01%	6.30%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.39	0.322	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216LR_PC3_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	4	5	0.03%	4.04%	KMEESDEEAVQAK	R	V	95.00%	3.4	0.435	0	2	0	0	2	1,589.64	688	700	TRUE	
SNU216LR_PC3_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	4	5	0.03%	4.04%	RYEDDGISDDEIEGKR	R	T	95.00%	2.82	0.274	0	0	1	0	2	1,976.82	21	36	TRUE	
SNU216LR_PC3_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	4	5	0.03%	4.04%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.16	0.427	0	0	1	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC3_02	palladin	IPI00292009	122,047.90	100.00%	4	7	7	0.04%	4.34%	GRSPRSPSGHPHVR	R	R	95.00%	2.83	0.39	0	1	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC3_02	palladin	IPI00292009	122,047.90	100.00%	4	7	7	0.04%	4.34%	IASDEEIQGTK	R	D	95.00%	2.63	0.46	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC3_02	palladin	IPI00292009	122,047.90	100.00%	4	7	7	0.04%	4.34%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	3.35	0.427	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC3_02	palladin	IPI00292009	122,047.90	100.00%	4	7	7	0.04%	4.34%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	3.84	0.544	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC3_02	Isoform 1 of Ran-binding protein 3	IPI00026337,IPI00456728,IP	60,209.90	99.20%	2	3	3	0.02%	5.47%	TSSLTQFPPSQSEER	R	S	84.30%	2.04	0.204	0	1	1	0	2	1,773.77	124	138	TRUE	
SNU216LR_PC3_02	Isoform 1 of Ran-binding protein 3	IPI00026337,IPI00456728,IP	60,209.90	99.20%	2	3	3	0.02%	5.47%	VLSPPKLNEVSSDANR	R	E	95.00%	2.53	0.363	0	1	1	0	2	1,805.88	331	346	TRUE	
SNU216LR_PC3_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	2	2	0.01%	2.15%	SHSPSASQSGSQLR	R	N	95.00%	2.12	0.255	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC3_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	2	2	0.01%	2.15%	TSTTGVATTQSPTPR	K	S	95.00%	2.33	0.288	0	1	0	0	2	1,584.73	1242	1256	TRUE	
SNU216LR_PC3_02	Splicing factor 3A subunit 3	IPI00029764	58,851.30	100.00%	1	1	1	0.01%	2.99%	YLEMLLEYLQDYTDR	R	V	95.00%	3.37	0.215	0	1	0	0	2	2,124.86	185	199	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.4	0.498	0	0	2	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	ETPHSPGVEDAPIAK	R	V	95.00%	3.23	0.364	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.36	0.439	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	6.75	0.436	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	LRSPPEALVQGR	R	Y	95.00%	2.75	0.295	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.87	0.518	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	5.59	0.506	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	13	0.08%	16.50%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	5.12	0.495	0	0	1	0	2	2,105.04	588	606	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	3	3	0.02%	3.49%	KRSVQEGENPDDGVR	R	G	95.00%	4.5	0.346	0	1	1	0	2	1,765.79	12	26	TRUE	
SNU216LR_PC3_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	3	3	0.02%	3.49%	SVQEGENPDDGVR	R	G	95.00%	2.11	0.435	0	1	0	0	2	1,481.59	14	26	TRUE	
SNU216LR_PC3_02	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.50%	2	2	3	0.02%	3.70%	KARVGGSDEEASGIPSR	K	T	89.40%	2.48	0.184	0	2	0	0	2	1,795.83	353	369	TRUE	
SNU216LR_PC3_02	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.50%	2	2	3	0.02%	3.70%	VGGSDEEASGIPSR	R	T	95.00%	2.64	0.431	0	1	0	0	2	1,440.60	356	369	TRUE	
SNU216LR_PC3_02	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	3	5	0.03%	5.39%	EKLQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	4.13	0.431	0	0	3	0	2	2,935.14	41	67	TRUE	
SNU216LR_PC3_02	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	3	5	0.03%	5.39%	LQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.4	0.594	0	1	1	0	2	2,662.01	43	67	TRUE	
SNU216LR_PC3_02	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.80%	2	2	2	0.01%	4.51%	LQALAEEPSQPHTRSPAK	K	N	95.00%	3.66	0.24	0	0	1	0	2	2,039.99	177	194	TRUE	
SNU216LR_PC3_02	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.80%	2	2	2	0.01%	4.51%	SSSVPHPFQVTLLR	R	N	95.00%	2.5	0.388	0	0	1	0	2	1,647.83	576	589	TRUE	
SNU216LR_PC3_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.02%	13.80%	AGDLLEDSPK	R	R	95.00%	2.19	0.179	1	0	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC3_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.02%	13.80%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.24	0.336	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC3_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.02%	13.80%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.45	0.357	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC3_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.02%	13.80%	RAGDLLEDSPK	R	R	92.80%	2.36	0.188	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216LR_PC3_02	WW domain-containing adapter with a coiled-coi	IPI00010241,IPI00087375,IP	59,504.50	100.00%	3	3	3	0.02%	8.17%	DAGDPSPPNK	R	M	90.10%	1.63	0.277	0	1	0	0	2	1,077.43	48	57	TRUE	
SNU216LR_PC3_02	WW domain-containing adapter with a coiled-coi	IPI00010241,IPI00087375,IP	59,504.50	100.00%	3	3	3	0.02%	8.17%	QGPVSQSATQQPVTADKQQGHEPVSPR	K	S	95.00%	3.32	0.276	0	0	1	0	2	2,937.39	384	410	TRUE	
SNU216LR_PC3_02	WW domain-containing adapter with a coiled-coi	IPI00010241,IPI00087375,IP	59,504.50	100.00%	3	3	3	0.02%	8.17%	SDSPENKYSDSTGHSK	R	A	94.10%	2.15	0.304	0	0	1	0	2	1,818.72	62	77	TRUE	
SNU216LR_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	23.00%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	3.19	0.397	0	0	0	1	2	2,421.94	71	90	TRUE	
SNU216LR_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	23.00%	EEDEEPESPPEKK	K	T	95.00%	2.78	0.334	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	23.00%	NSQEDSEDSEDKDVK	K	T	95.00%	3.76	0.382	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216LR_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	23.00%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	2.37	0.444	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216LR_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	23.00%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.55	0.229	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216LR_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	4.52%	HLFSSTENLAAGSWK	K	E	95.00%	2.98	0.519	0	1	0	0	2	1,727.78	353	367	TRUE	
SNU216LR_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	4.52%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	95.00%	6.23	0.0363	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216LR_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	4.52%	RSSLLSLMTGK	R	K	95.00%	2.39	0.318	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216LR_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	4.52%	RSSLLSLMTGKK	R	D	95.00%	2.86	0.313	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC3_02	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	1	2	7	0.04%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.93	0.476	2	5	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC3_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	4	7	0.04%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.26	0.311	0	0	1	0	2	3,189.57	217	244	TRUE	
SNU216LR_PC3_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	4	7	0.04%	6.24%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.23	0.539	0	2	3	1	2	2,205.10	225	244	TRUE	
SNU216LR_PC3_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.53	0.453	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC3_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.43	0.253	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216LR_PC3_02	Histone H1.4	IPI00217467	21,735.70	100.00%	3	3	4	0.02%	19.30%	KAPKSPAK	K	A	95.00%	2.08	0.323	0	2	0	0	2	906.481	182	189	TRUE	
SNU216LR_PC3_02	Histone H1.4	IPI00217467	21,735.70	100.00%	3	3	4	0.02%	19.30%	KASGPPVSELITK	R	A	95.00%	3.32	0.401	0	1	0	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216LR_PC3_02	Histone H1.4	IPI00217467	21,735.70	100.00%	3	3	4	0.02%	19.30%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.34	0.516	0	0	1	0	2	2,112.07	1	21	TRUE	
SNU216LR_PC3_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	1	2	2	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.57	0.28	0	1	1	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC3_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.90%	2	2	2	0.01%	5.58%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	4.97	0.389	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216LR_PC3_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.90%	2	2	2	0.01%	5.58%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.91	0.469	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216LR_PC3_02	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.80%	2	2	2	0.01%	4.10%	AASLDSVATSR	R	V	95.00%	1.99	0.386	0	1	0	0	2	1,157.52	758	768	TRUE	
SNU216LR_PC3_02	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.80%	2	2	2	0.01%	4.10%	QAGAPGGSSGSGGSPELSALR	R	L	95.00%	3.47	0.131	0	1	0	0	2	1,922.86	527	547	TRUE	
SNU216LR_PC3_02	Protein DEK	IPI00020021	42,675.90	100.00%	3	4	5	0.03%	7.73%	EESEEEEDEDDEEEEEEEK	R	E	95.00%	3.97	0.636	0	1	0	0	2	2,465.79	30	48	TRUE	
SNU216LR_PC3_02	Protein DEK	IPI00020021	42,675.90	100.00%	3	4	5	0.03%	7.73%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.65	0.658	0	2	1	0	2	2,722.93	30	50	TRUE	
SNU216LR_PC3_02	Protein DEK	IPI00020021	42,675.90	100.00%	3	4	5	0.03%	7.73%	EPEMPGPREESEEEEDEDDEEEEEEEKEK	K	S	95.00%	5.16	0.377	0	0	1	0	2	3,616.33	22	50	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	KLGAGEGGEASVSPEK	K	T	95.00%	3.19	0.314	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	LDSSPSVSSTLAAK	K	D	95.00%	2.4	0.266	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	LGAGEGGEASVSPEK	K	T	95.00%	3.07	0.474	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.55	0.0687	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.08	0.424	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	TSQVGAASAPAKESPR	K	K	95.00%	3.78	0.512	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	TSQVGAASAPAKESPRK	K	G	95.00%	3.79	0.436	0	0	1	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	9	9	0.05%	6.09%	TVANLLSGKSPR	K	K	95.00%	3.07	0.278	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC3_02	A kinase anchor protein 10, mitochondrial precur	IPI00306265	73,820.00	99.20%	2	2	2	0.01%	3.78%	NSPASPLKELSGK	R	L	83.60%	1.93	0.21	0	1	0	0	2	1,407.69	277	289	TRUE	
SNU216LR_PC3_02	A kinase anchor protein 10, mitochondrial precur	IPI00306265	73,820.00	99.20%	2	2	2	0.01%	3.78%	QSSLAEPVSPSK	K	K	95.00%	2.77	0.181	0	1	0	0	2	1,309.60	179	190	TRUE	
SNU216LR_PC3_02	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.11	0.264	0	1	0	0	2	1,872.96	270	286	TRUE	
SNU216LR_PC3_02	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	SASSDTSEELNSQDSPPK	R	Q	93.20%	4.03	0.0123	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216LR_PC3_02	ring finger protein 12	IPI00386464	68,549.00	99.80%	1	1	1	0.01%	2.08%	SRSPLHPMSEIPR	R	R	95.00%	2.72	0.177	0	0	1	0	2	1,586.75	228	240	TRUE	
SNU216LR_PC3_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	4	11	0.06%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	4.53	0.384	0	4	3	0	2	1,673.69	221	235	TRUE	
SNU216LR_PC3_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	4	11	0.06%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.28	0.33	0	1	3	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC3_02	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	100.00%	2	2	2	0.01%	3.97%	ALSASHTDLAH	R	-	92.90%	2.21	0.184	0	1	0	0	2	1,202.52	570	580	TRUE	
SNU216LR_PC3_02	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	100.00%	2	2	2	0.01%	3.97%	ASSLNVLNVGGK	R	A	95.00%	2.31	0.408	0	1	0	0	2	1,238.61	541	552	TRUE	
SNU216LR_PC3_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	99.90%	2	3	3	0.02%	3.61%	GPTPPAMGPR	R	D	93.10%	1.58	0.32	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC3_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	99.90%	2	3	3	0.02%	3.61%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	2.82	0.303	0	1	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC3_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.00%	ATSPVKSTTSITDAK	K	S	95.00%	3.18	0.499	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC3_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.00%	DKSTTPGGTGIKPFLER	K	F	95.00%	3.08	0.242	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216LR_PC3_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.00%	NKASPQSEFMPSK	K	G	95.00%	3.36	0.362	0	0	1	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	10	0.06%	19.80%	IVEPEVVGESDSEVEGDAWR	K	M	95.00%	4.67	0.507	0	1	0	0	2	2,281.99	107	126	TRUE	
SNU216LR_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	10	0.06%	19.80%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	5.34	0.558	0	1	1	0	2	2,410.08	106	126	TRUE	
SNU216LR_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	10	0.06%	19.80%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	3.41	0.468	0	0	2	0	2	2,786.98	127	147	TRUE	
SNU216LR_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	10	0.06%	19.80%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	3.38	0.336	0	0	1	0	2	2,642.06	44	64	TRUE	
SNU216LR_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	10	0.06%	19.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	4	0.411	0	0	2	0	2	2,770.16	44	65	TRUE	
SNU216LR_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	10	0.06%	19.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.18	0.578	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216LR_PC3_02	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	100.00%	1	2	5	0.03%	6.11%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	5.53	0.308	0	0	2	3	2	3,734.69	135	167	TRUE	
SNU216LR_PC3_02	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.90%	1	1	1	0.01%	4.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	4.95	0.417	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216LR_PC3_02	Isoform 2 of Dual specificity protein kinase CLK3	IPI00219340	18,971.70	99.80%	2	3	3	0.02%	9.21%	RYRSPEPDPYLSYR	K	W	95.00%	2.67	0.247	0	0	1	0	2	1,878.85	6	19	TRUE	
SNU216LR_PC3_02	Isoform 2 of Dual specificity protein kinase CLK3	IPI00219340	18,971.70	99.80%	2	3	3	0.02%	9.21%	YRSPEPDPYLSYR	R	W	95.00%	3.94	0.426	0	1	1	0	2	1,722.75	7	19	TRUE	
SNU216LR_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	7	0.04%	8.56%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.58	0.19	0	0	1	0	2	2,088.99	267	284	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	7	0.04%	8.56%	HDSPDPSPPR	R	R	95.00%	2.12	0.488	0	2	0	0	2	1,184.47	195	204	TRUE	
SNU216LR_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	7	0.04%	8.56%	HDSPDPSPPRR	R	P	95.00%	1.97	0.406	0	1	0	0	2	1,420.54	195	205	TRUE	
SNU216LR_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	7	0.04%	8.56%	HDTPDPSPLR	R	G	95.00%	2.34	0.347	0	2	0	0	2	1,214.52	157	166	TRUE	
SNU216LR_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	7	0.04%	8.56%	NSKYEYDPDISPPR	K	K	95.00%	2.52	0.29	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216LR_PC3_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.80%	2	3	3	0.02%	2.23%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	3.23	0.401	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216LR_PC3_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.80%	2	3	3	0.02%	2.23%	WRPHSPDGPR	R	S	95.00%	2.32	0.296	0	1	1	0	2	1,284.56	232	241	TRUE	
SNU216LR_PC3_02	Hsc70-interacting protein	IPI00032826	41,332.40	99.80%	1	1	1	0.01%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	4.4	0.293	0	0	1	0	2	2,665.11	64	85	TRUE	
SNU216LR_PC3_02	far upstream element-binding protein	IPI00375441	67,560.60	100.00%	1	1	1	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	3.89	0.542	0	1	0	0	2	2,661.16	621	644	TRUE	
SNU216LR_PC3_02	Isoform 1 of Epsin-4	IPI00291930,IPI00397519	68,260.50	99.40%	2	2	2	0.01%	4.96%	ASPDQNASTHTPQSSVK	K	T	95.00%	2.27	0.244	0	1	0	0	2	1,834.80	298	314	TRUE	
SNU216LR_PC3_02	Isoform 1 of Epsin-4	IPI00291930,IPI00397519	68,260.50	99.40%	2	2	2	0.01%	4.96%	TIDLGAAAHYTGDKASPDQNASTHTPQSSV	K	T	88.70%	5.78	0.0297	0	0	1	0	2	3,248.49	284	314	TRUE	
SNU216LR_PC3_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.62%	NRSAEEGELAESK	R	S	95.00%	3.25	0.39	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC3_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.62%	VPSSDEEVVEEPQSR	R	R	95.00%	3.32	0.413	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	100.00%	3	4	4	0.02%	8.42%	RDSSESQLASTESDKPTTGR	R	V	95.00%	5.62	0.498	0	1	1	0	2	2,231.98	64	83	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	100.00%	3	4	4	0.02%	8.42%	RSRSESETSTMAAK	R	K	95.00%	2.63	0.208	0	0	1	0	2	1,620.70	142	155	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	100.00%	3	4	4	0.02%	8.42%	SRSESETSTMAAK	R	K	95.00%	3.95	0.12	0	1	0	0	2	1,464.60	143	155	TRUE	
SNU216LR_PC3_02	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	99.80%	1	2	3	0.02%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.88	0.499	0	1	2	0	2	2,741.09	164	187	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	3	4	4	0.02%	5.99%	DGLAPEKTSPDRDK	R	K	95.00%	3	0.428	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	3	4	4	0.02%	5.99%	KEQSEVSVSPR	K	A	95.00%	2.11	0.323	0	1	0	0	2	1,325.61	24	34	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	3	4	4	0.02%	5.99%	KKEQSEVSVSPR	K	A	95.00%	2.73	0.286	0	1	1	0	2	1,453.70	23	34	TRUE	
SNU216LR_PC3_02	Torsin-1A-interacting protein 2	IPI00168878	51,263.10	100.00%	1	2	2	0.01%	5.32%	GHHLPSENLGKEPLDPDPSHSPSDK	K	V	95.00%	6.05	0.53	0	0	1	1	2	2,770.25	100	124	TRUE	
SNU216LR_PC3_02	Isoform 1 of Doublecortin domain-containing pro	IPI00008917	52,803.60	100.00%	3	3	3	0.02%	8.40%	SQGAGSGQDEADVDPQRPRPRPEVK	K	I	95.00%	2.65	0.281	0	0	1	0	2	2,600.17	433	456	TRUE	
SNU216LR_PC3_02	Isoform 1 of Doublecortin domain-containing pro	IPI00008917	52,803.60	100.00%	3	3	3	0.02%	8.40%	STVGSSDNSSPQPLK	K	R	95.00%	2.62	0.263	0	1	0	0	2	1,583.70	261	275	TRUE	
SNU216LR_PC3_02	Isoform 1 of Doublecortin domain-containing pro	IPI00008917	52,803.60	100.00%	3	3	3	0.02%	8.40%	STVGSSDNSSPQPLKR	K	K	95.00%	2.67	0.176	0	1	0	0	2	1,739.80	261	276	TRUE	
SNU216LR_PC3_02	Isoform 3 of Kinesin light chain 3	IPI00465074,IPI00478456,IP	55,236.60	99.80%	2	2	2	0.01%	5.41%	AMSLNTLNVDAPR	R	A	95.00%	3.12	0.393	0	1	0	0	2	1,481.68	463	475	TRUE	
SNU216LR_PC3_02	Isoform 3 of Kinesin light chain 3	IPI00465074,IPI00478456,IP	55,236.60	99.80%	2	2	2	0.01%	5.41%	RDSLASLFPSEEEER	R	K	95.00%	3.1	0.387	0	1	0	0	2	1,844.81	170	184	TRUE	
SNU216LR_PC3_02	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	2	2	2	0.01%	12.40%	GGGGDMAEPSEAGDAPPDDGPPGELGPD(	R	G	95.00%	5.59	0.42	0	0	1	0	2	3,469.35	311	346	TRUE	
SNU216LR_PC3_02	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	2	2	2	0.01%	12.40%	GGGGGQDNGLEGLGNDSR	R	D	95.00%	4.59	0.192	0	1	0	0	2	1,739.70	394	411	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	AGLGSPERPPK	R	T	95.00%	2.58	0.337	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	AGLGSPERPPKTSPGSPR	R	L	95.00%	2.83	0.34	0	1	0	0	2	1,950.88	54	71	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.25	0.4	0	1	0	0	2	2,635.20	31	53	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	LGGLRPESPESLTSVSR	R	T	95.00%	3.67	0.428	0	0	1	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.68	0.593	0	2	2	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	QPEYSPESPR	R	C	95.00%	1.93	0.282	0	1	0	0	2	1,269.51	106	115	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	QQDLHLESPQR	R	Q	88.70%	2.34	0.186	0	1	0	0	2	1,430.64	95	105	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	3.61	0.29	0	1	2	0	2	2,601.17	95	115	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	RALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.29	0.298	0	0	0	1	2	2,791.30	30	53	TRUE	
SNU216LR_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	12	15	0.09%	28.90%	RLGGLRPESPESLTSVSR	R	T	85.50%	2.46	0.208	0	1	0	0	2	2,021.02	10	27	TRUE	
SNU216LR_PC3_02	debranching enzyme homolog 1	IPI00305545	61,556.10	99.80%	1	1	1	0.01%	2.02%	RLSDEHEPEQR	K	K	95.00%	2.4	0.194	0	1	0	0	2	1,475.63	512	522	TRUE	
SNU216LR_PC3_02	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.89	0.576	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216LR_PC3_02	MGRN1 protein	IPI00297251,IPI00643212	60,754.10	99.80%	1	1	1	0.01%	2.26%	SPSSPIHEEDEEK	R	L	95.00%	2.98	0.425	0	1	0	0	2	1,563.62	457	469	TRUE	
SNU216LR_PC3_02	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	99.80%	2	3	3	0.02%	8.23%	AETSEGSGSAPAVPEASASPK	K	Q	95.00%	3.43	0.433	0	1	1	0	2	2,009.87	74	94	TRUE	
SNU216LR_PC3_02	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	99.80%	2	3	3	0.02%	8.23%	HEPVQPSAHHSAEPAEAGKAETSEGSGSAP	K	Q	95.00%	5.42	0.459	0	0	0	1	2	3,969.79	55	94	TRUE	
SNU216LR_PC3_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	5	5	0.03%	5.86%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	5.2	0.577	0	1	1	0	2	2,669.00	89	113	TRUE	
SNU216LR_PC3_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	5	5	0.03%	5.86%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	5.01	0.433	0	0	1	1	2	2,797.10	89	114	TRUE	
SNU216LR_PC3_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	5	5	0.03%	5.86%	GNDSDGEGESDDPEK	K	K	95.00%	3.5	0.582	0	1	0	0	2	1,630.54	99	113	TRUE	
SNU216LR_PC3_02	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	3	3	0.02%	6.27%	SQGSGNEAEPLGK	K	G	95.00%	2.86	0.421	0	1	0	0	2	1,353.57	452	464	TRUE	
SNU216LR_PC3_02	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	3	3	0.02%	6.27%	TSPVKSNTPAAHLEIKPDELAK	K	K	95.00%	3.7	0.334	0	0	1	1	2	2,426.23	194	215	TRUE	
SNU216LR_PC3_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	6	7	0.04%	8.08%	DIEISTEEEKDTGDLK	R	D	95.00%	2.8	0.346	0	1	0	0	2	1,981.79	333	348	TRUE	
SNU216LR_PC3_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	6	7	0.04%	8.08%	KRSSSEDAESLAPR	R	S	95.00%	4.04	0.36	0	1	1	0	2	1,612.73	296	309	TRUE	
SNU216LR_PC3_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	6	7	0.04%	8.08%	SRPTSEGSDIESTEPQK	R	Q	95.00%	4.04	0.135	0	2	1	0	2	1,927.83	254	270	TRUE	
SNU216LR_PC3_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	6	7	0.04%	8.08%	SSSEDAESLAPR	R	S	95.00%	2.81	0.359	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein C20orf112	IPI00289086,IPI00607558	43,078.10	99.80%	1	1	1	0.01%	3.90%	TTPESPPYSSGSYDSIK	K	T	95.00%	2.43	0.4	0	1	0	0	2	1,895.79	126	142	TRUE	
SNU216LR_PC3_02	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	1	2	2	0.01%	4.22%	KVSKQEEASGGPTAPK	R	A	95.00%	3.28	0.441	0	1	1	0	2	1,693.82	236	251	TRUE	
SNU216LR_PC3_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	99.80%	2	2	2	0.01%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	3.26	0.249	0	0	1	0	2	2,298.08	9	31	TRUE	
SNU216LR_PC3_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	99.80%	2	2	2	0.01%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	5.04	0.372	0	0	1	0	2	2,541.20	7	31	TRUE	
SNU216LR_PC3_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	3	3	0.02%	6.56%	ENHGQADHSPSMTATHFPR	R	V	95.00%	3.68	0.264	0	0	1	0	2	2,199.90	254	272	TRUE	
SNU216LR_PC3_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	3	3	0.02%	6.56%	SPPETAAPVEDMAR	R	R	94.20%	2.64	0.153	0	0	1	0	2	1,550.66	550	563	TRUE	
SNU216LR_PC3_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	3	3	0.02%	6.56%	TESEVPPRPASPK	R	V	95.00%	2.73	0.468	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216LR_PC3_02	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	99.80%	1	2	2	0.01%	1.81%	RKSGGNEVSIEER	K	L	95.00%	2.85	0.251	0	1	1	0	2	1,540.71	429	441	TRUE	
SNU216LR_PC3_02	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	2	2	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	95.00%	3.11	0.279	0	0	1	1	2	2,531.23	30	50	TRUE	
SNU216LR_PC3_02	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	3	3	3	0.02%	9.06%	LFGGFNSSDTVTSPQR	K	A	95.00%	3.13	0.314	0	1	0	0	2	1,792.79	62	77	TRUE	
SNU216LR_PC3_02	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	3	3	3	0.02%	9.06%	RSLEPAENVHGAGGGAFPASQTPSKPASAD	R	G	95.00%	3.8	0.228	0	0	0	1	2	3,336.55	15	47	TRUE	
SNU216LR_PC3_02	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	3	3	3	0.02%	9.06%	SLEPAENVHGAGGGAFPASQTPSKPASADK	R	G	95.00%	4.78	0.411	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216LR_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.27%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	4.95	0.247	0	0	1	0	2	2,373.03	234	253	TRUE	
SNU216LR_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.27%	DNSPEPNDPEEPQEVSSTPSDKK	R	G	95.00%	4.63	0.427	0	0	1	0	2	2,606.08	254	276	TRUE	
SNU216LR_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.27%	RVTQGAASPGHGIQEK	R	L	95.00%	3.46	0.364	0	0	1	0	2	1,715.82	373	388	TRUE	
SNU216LR_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.27%	VTQGAASPGHGIQEK	R	L	95.00%	2.76	0.344	0	1	0	0	2	1,559.72	374	388	TRUE	
SNU216LR_PC3_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	99.40%	2	2	2	0.01%	2.49%	IHEKDPNSATATAPPSPLKR	K	R	95.00%	3.4	0.29	0	0	1	0	2	2,210.10	146	165	TRUE	
SNU216LR_PC3_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	99.40%	2	2	2	0.01%	2.49%	VTENGGSPQGIKSPSKPPGPNR	K	I	87.20%	2.74	0.19	0	0	1	0	2	2,284.11	30	51	TRUE	
SNU216LR_PC3_02	Brain acid soluble protein 1	IPI00299024	22,562.10	100.00%	1	1	1	0.01%	6.19%	ETPAATEAPSSTPK	K	A	95.00%	2.24	0.29	0	1	0	0	2	1,466.64	184	197	TRUE	
SNU216LR_PC3_02	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	1	1	1	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	5.59	0.0854	0	0	1	0	2	2,892.14	391	415	TRUE	
SNU216LR_PC3_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	4	4	0.02%	8.44%	AEEKSPISINVK	K	T	95.00%	2.76	0.314	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216LR_PC3_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	4	4	0.02%	8.44%	EVKAEEKSPISINVK	R	T	95.00%	2.84	0.373	0	1	1	0	2	1,750.90	118	132	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	4	4	0.02%	8.44%	QQASKSPYNGVR	R	K	95.00%	3.19	0.366	0	1	0	0	2	1,414.65	142	153	TRUE	
SNU216LR_PC3_02	Isoform Delta-1 of Serine/threonine-protein phos	IPI00000030	69,994.40	99.80%	1	2	2	0.01%	2.16%	RKSELPQDVYTIK	R	A	95.00%	3.04	0.277	0	1	1	0	2	1,656.84	571	583	TRUE	
SNU216LR_PC3_02	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	100.00%	1	1	1	0.01%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	3.73	0.535	0	1	0	0	2	1,586.78	68	81	TRUE	
SNU216LR_PC3_02	Hypothetical protein DKFZp564H1322	IPI00012669	57,651.50	99.80%	1	2	2	0.01%	3.46%	WKEPGSGGPQNLSGPGGR	R	E	95.00%	3.26	0.326	0	1	1	0	2	1,860.84	20	37	TRUE	
SNU216LR_PC3_02	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	100.00%	2	2	2	0.01%	3.99%	KVTFFEPGSGDENGTSNKEDEFR	R	M	95.00%	4.04	0.344	0	0	1	0	2	2,670.14	301	323	TRUE	
SNU216LR_PC3_02	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	100.00%	2	2	2	0.01%	3.99%	VTFFEPGSGDENGTSNKEDEFR	K	M	95.00%	3.99	0.379	0	0	1	0	2	2,542.04	302	323	TRUE	
SNU216LR_PC3_02	EH-domain-containing protein 1	IPI00017184	60,629.10	100.00%	1	2	3	0.02%	3.37%	DKPTYDEIFYTLSPVNGK	K	I	95.00%	3.86	0.355	0	2	1	0	2	2,167.00	444	461	TRUE	
SNU216LR_PC3_02	Negative elongation factor B	IPI00103483	65,699.50	99.80%	1	2	2	0.01%	4.48%	KPSPAQAAETPALELPLPSVPAPAPL	R	-	95.00%	5.15	0.54	0	1	1	0	2	2,642.38	555	580	TRUE	
SNU216LR_PC3_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	MSADMSEIEAR	R	I	95.00%	2.02	0.31	0	1	0	0	2	1,319.50	388	398	TRUE	
SNU216LR_PC3_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	RMSADMSEIEAR	K	I	95.00%	2.76	0.38	0	1	0	0	2	1,475.60	387	398	TRUE	
SNU216LR_PC3_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.72	0.46	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216LR_PC3_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	2.8	0.402	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216LR_PC3_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	5	5	0.03%	7.76%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.58	0.349	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC3_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	5	5	0.03%	7.76%	SGDETPGSEVPGDK	R	A	95.00%	2.34	0.234	0	1	1	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC3_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	5	5	0.03%	7.76%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.24	0.489	0	0	1	1	2	4,198.92	226	261	TRUE	
SNU216LR_PC3_02	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	4	5	0.03%	12.40%	KYSEVDDSLPSGGEKPSK	R	N	95.00%	3.96	0.282	0	1	0	0	2	2,002.90	26	43	TRUE	
SNU216LR_PC3_02	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	4	5	0.03%	12.40%	RKSQVNGEAGSYEMTNQHVK	R	Q	95.00%	3.99	0.376	0	0	2	1	2	2,343.05	102	121	TRUE	
SNU216LR_PC3_02	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	4	5	0.03%	12.40%	TTLLGTIFSPVFNFFSPANK	R	N	95.00%	2.62	0.287	0	0	1	0	2	2,281.13	138	157	TRUE	
SNU216LR_PC3_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	4.56%	SLDMDSIIAEVK	R	A	81.40%	2.46	0.111	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216LR_PC3_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	4.56%	SYKVSTSGPR	K	A	94.70%	1.51	0.329	0	1	0	0	2	1,161.53	8	17	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	AEDGATPSPSNETPK	K	K	95.00%	2.99	0.373	0	3	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	AEDGATPSPSNETPKK	K	K	95.00%	3.62	0.447	0	4	1	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	AEDGATPSPSNETPKKK	K	K	95.00%	3.64	0.348	0	1	2	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	95.00%	5.93	0.558	0	1	3	0	2	2,995.27	105	136	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	5	0.371	0	0	2	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.66	0.375	0	1	0	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	5.58	0.422	0	0	0	1	2	2,899.33	11	39	TRUE	
SNU216LR_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	11	20	0.12%	38.70%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.46	0.524	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC3_02	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	1	1	1	0.01%	1.99%	QTPMASSPRPK	K	M	95.00%	2.52	0.384	0	1	0	0	2	1,279.59	150	160	TRUE	
SNU216LR_PC3_02	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	99.80%	1	1	1	0.01%	7.12%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	3.74	0.457	0	1	0	0	2	2,307.02	146	166	TRUE	
SNU216LR_PC3_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	6	7	0.04%	4.93%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.95	0.41	0	1	1	1	2	2,450.06	90	113	TRUE	
SNU216LR_PC3_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	6	7	0.04%	4.93%	KTPEGRASPAPGSGHPEGPGAHLDMNSLD	R	A	95.00%	5.14	0.397	0	0	1	2	2	3,118.42	84	113	TRUE	
SNU216LR_PC3_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	6	7	0.04%	4.93%	TPEGRASPAPGSGHPEGPGAHLDMNSLDR	K	A	95.00%	4.69	0.316	0	0	0	1	2	2,990.32	85	113	TRUE	
SNU216LR_PC3_02	Probable ATP-dependent RNA helicase DDX41	IPI00007208	69,839.70	99.80%	1	1	1	0.01%	4.50%	TDEVPAGGSRSEAEDEDDEDYVPYVPLR	R	Q	95.00%	3.81	0.395	0	0	1	0	2	3,190.34	13	40	TRUE	
SNU216LR_PC3_02	3-phosphoinositide dependent protein kinase-1 v	IPI00746320	54,830.10	99.80%	2	3	3	0.02%	7.11%	ANSFVGTAQYVSPELLTEK	R	S	95.00%	3.54	0.37	0	1	1	0	2	2,134.01	277	295	TRUE	
SNU216LR_PC3_02	3-phosphoinositide dependent protein kinase-1 v	IPI00746320	54,830.10	99.80%	2	3	3	0.02%	7.11%	TQTESSTPPGIPGGSR	R	Q	95.00%	2.43	0.317	0	1	0	0	2	1,651.73	69	84	TRUE	
SNU216LR_PC3_02	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	3	4	4	0.02%	13.70%	EHPTVVPSHKSPVLDTKPK	R	E	95.00%	3.68	0.393	0	0	1	1	2	2,176.12	454	472	TRUE	
SNU216LR_PC3_02	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	3	4	4	0.02%	13.70%	ETGGILGEGTPK	K	E	95.00%	2.62	0.37	0	1	0	0	2	1,238.57	473	484	TRUE	
SNU216LR_PC3_02	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	3	4	4	0.02%	13.70%	PVSGQDTSGNTEGSPAAEK	K	A	95.00%	4.01	0.57	0	1	0	0	2	1,911.80	496	514	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	EESEESEAEPVQR	R	T	95.00%	2.69	0.238	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	ESEQESEEEILAQK	K	K	95.00%	3.67	0.369	0	1	0	0	2	1,728.72	222	235	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	ESEQESEEEILAQKK	K	E	95.00%	3.32	0.235	0	1	0	0	2	1,856.82	222	236	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	EVSDSEAGGGPQGER	R	K	95.00%	3.3	0.501	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	EVSDSEAGGGPQGERK	R	N	95.00%	3.05	0.476	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	GEESSEEEEKGYK	R	G	89.20%	1.81	0.25	0	1	0	0	2	1,660.57	156	168	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	NGVAAEVSPAKEENPR	K	R	95.00%	3	0.25	0	1	0	0	2	1,747.80	118	133	TRUE	
SNU216LR_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	8	8	8	0.05%	13.70%	SLKESEQESEEEILAQKK	K	E	84.00%	2.78	0.16	0	0	1	0	2	2,264.99	219	236	TRUE	
SNU216LR_PC3_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	4.22	0.485	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216LR_PC3_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.59	0.491	0	1	1	0	2	2,308.15	97	119	TRUE	
SNU216LR_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	13	0.08%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.09	0.451	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	13	0.08%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.29	0.587	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	13	0.08%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.64	0.4	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	13	0.08%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	10.1	0.628	0	0	2	6	2	3,735.89	46	80	TRUE	
SNU216LR_PC3_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	4.14	0.494	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC3_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	4	4	0.02%	5.95%	DLEASHQHSSPNEQLK	K	K	95.00%	3.04	0.269	0	1	1	0	2	1,899.82	276	291	TRUE	
SNU216LR_PC3_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	4	4	0.02%	5.95%	FQSQADQDQQASGLQSPPSR	K	D	95.00%	3.65	0.484	0	1	0	0	2	2,254.97	466	485	TRUE	
SNU216LR_PC3_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	4	4	0.02%	5.95%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	4.28	0.433	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC3_02	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	4	4	0.02%	5.57%	GFENVIHDKLPLQESEEEEREER	K	S	95.00%	4.19	0.432	0	0	1	1	2	2,892.31	143	165	TRUE	
SNU216LR_PC3_02	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	4	4	0.02%	5.57%	LPLQESEEEEREER	K	S	95.00%	2.89	0.302	0	1	0	0	2	1,852.80	152	165	TRUE	
SNU216LR_PC3_02	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	4	4	0.02%	5.57%	VIGQDHDFSESSEEEAPAEASSGALR	R	S	95.00%	3	0.243	0	0	1	0	2	2,878.15	399	424	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	4.73%	DQSPPPSPPPSYHPPPPPTK	K	K	91.00%	3.11	0.144	0	0	1	0	2	2,279.98	667	686	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	4.73%	GLAGPPASPGK	K	A	95.00%	2.03	0.352	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	4.73%	KLQLERPVSPETQADLQR	R	N	95.00%	3.66	0.409	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216LR_PC3_02	mRNA decapping enzyme 1A	IPI00164672	63,437.30	99.80%	2	2	2	0.01%	7.36%	KASSPSPLTIGTPESQR	R	K	95.00%	3.97	0.16	0	1	0	0	2	1,835.89	522	538	TRUE	
SNU216LR_PC3_02	mRNA decapping enzyme 1A	IPI00164672	63,437.30	99.80%	2	2	2	0.01%	7.36%	QRSPLLNQPVPELSHASLIANQSPFR	R	A	95.00%	6.39	0.535	0	0	1	0	2	2,979.52	351	376	TRUE	
SNU216LR_PC3_02	Isoform 1 of Sex comb on midleg-like protein 2	IPI00328688	77,258.00	99.80%	1	1	1	0.01%	2.57%	TESSPSEASQHSMQSPQK	K	T	95.00%	3.72	0.384	0	1	0	0	2	2,025.82	253	270	TRUE	
SNU216LR_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.19%	ASPSKPASAPASR	R	S	95.00%	2.75	0.42	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.19%	DMESPTKLDVTLAK	K	D	95.00%	3.11	0.22	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.19%	DMSPLSETEMALGK	K	D	95.00%	3.36	0.496	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.19%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.31	0.414	0	0	1	0	2	3,106.50	533	560	TRUE	
SNU216LR_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.19%	ETERASPIKMDLAPSK	K	D	95.00%	3.6	0.282	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.19%	RASPSKPASAPASR	K	S	95.00%	2.62	0.377	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC3_02	cystathionine-beta-synthase	IPI00219352,IPI00219649	60,587.30	99.80%	1	1	1	0.01%	2.54%	GSLEKGSPEDKEAK	K	E	95.00%	2.94	0.401	0	1	0	0	2	1,554.71	26	39	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	99.10%	2	2	2	0.01%	0.66%	SASPSVPGPTKPKPK	R	T	95.00%	2.59	0.283	0	1	0	0	2	1,557.80	3525	3539	TRUE	
SNU216LR_PC3_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	99.10%	2	2	2	0.01%	0.66%	VRSPTRSPSVK	R	T	82.40%	1.82	0.245	0	1	0	0	2	1,373.63	159	169	TRUE	
SNU216LR_PC3_02	villin 2	IPI00479359,IPI00746388	69,414.70	100.00%	1	1	1	0.01%	2.05%	EVHKSGYLSSER	K	L	95.00%	2.24	0.287	0	0	1	0	2	1,471.66	140	151	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	4.34%	AAVVTSPPPTTAPHK	R	E	95.00%	2.6	0.385	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	4.34%	SPGSPVGEGTGSPPK	R	W	95.00%	2.89	0.434	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	4.34%	SRSPGSPVGEGTGSPPK	K	W	92.20%	2.27	0.197	0	1	0	0	2	1,676.76	353	369	TRUE	
SNU216LR_PC3_02	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	3	4	4	0.02%	5.11%	KPSPEPEGEVGPPK	R	I	95.00%	3.41	0.486	0	1	0	0	2	1,527.71	342	355	TRUE	
SNU216LR_PC3_02	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	3	4	4	0.02%	5.11%	LEEPPELNRQSPNPR	K	R	83.90%	2.27	0.21	0	0	1	0	2	1,855.87	165	179	TRUE	
SNU216LR_PC3_02	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	3	4	4	0.02%	5.11%	RKPSPEPEGEVGPPK	K	I	95.00%	3.57	0.46	0	1	1	0	2	1,683.81	341	355	TRUE	
SNU216LR_PC3_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	AGGLDWPEATEVSPSR	R	T	95.00%	3.22	0.422	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC3_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.64	0.241	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216LR_PC3_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	2.96	0.271	0	0	1	0	2	2,142.05	308	326	TRUE	
SNU216LR_PC3_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	4.06	0.342	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216LR_PC3_02	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	1	1	1	0.01%	3.16%	SGSMDPSGAHPSVR	R	Q	95.00%	2.6	0.385	0	1	0	0	2	1,480.59	18	31	TRUE	
SNU216LR_PC3_02	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	3	4	4	0.02%	12.90%	GAADEVEVEPPEPPGPVASR	R	D	95.00%	3.65	0.396	0	1	0	0	2	2,082.94	66	85	TRUE	
SNU216LR_PC3_02	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	3	4	4	0.02%	12.90%	HQTLEVSLSRDSPLK	K	T	95.00%	3.62	0.248	0	1	1	0	2	1,789.88	358	372	TRUE	
SNU216LR_PC3_02	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	3	4	4	0.02%	12.90%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	4.77	0.493	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216LR_PC3_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	99.80%	2	2	2	0.01%	5.66%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	4.04	0.376	0	0	1	0	2	2,322.91	616	635	TRUE	
SNU216LR_PC3_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	99.80%	2	2	2	0.01%	5.66%	GSGGSSGDELREDDEPVK	R	K	95.00%	2.24	0.284	0	1	0	0	2	1,993.74	365	382	TRUE	
SNU216LR_PC3_02	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	3.39%	KASPEPPDSAEGALK	R	L	95.00%	3.19	0.409	0	0	1	0	2	1,576.73	545	559	TRUE	
SNU216LR_PC3_02	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	3.39%	RPGSVSSTDQER	K	E	95.00%	2.04	0.261	0	1	0	0	2	1,398.60	331	342	TRUE	
SNU216LR_PC3_02	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	5	5	0.03%	6.80%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	4.09	0.315	0	0	1	1	2	3,188.48	642	669	TRUE	
SNU216LR_PC3_02	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	5	5	0.03%	6.80%	RSDSASSEPVGIYQGFEK	R	K	95.00%	4.8	0.321	0	1	1	0	2	2,036.90	301	318	TRUE	
SNU216LR_PC3_02	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	5	5	0.03%	6.80%	SDSASSEPVGIYQGFEK	R	K	95.00%	3.26	0.33	0	1	0	0	2	1,880.80	302	318	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	100.00%	1	1	1	0.01%	5.82%	SSGSPYGGGYGSGGGSGGYGSR	R	R	95.00%	4.21	0.0258	0	1	0	0	2	1,990.76	355	376	TRUE	
SNU216LR_PC3_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.80%	2	2	2	0.01%	3.35%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.23	0.553	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC3_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.80%	2	2	2	0.01%	3.35%	VSAGEPGSHPSPAPR	K	R	95.00%	3.56	0.402	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	16	0.09%	4.56%	EISDDEAEEEK	K	G	95.00%	2.99	0.412	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	16	0.09%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.25	0.279	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	16	0.09%	4.56%	EKEISDDEAEEEK	R	G	95.00%	3	0.462	0	2	1	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	16	0.09%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.73	0.416	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	16	0.09%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	3.33	0.512	1	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	16	0.09%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.93	0.441	0	2	0	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	12	16	0.09%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	4.04	0.395	0	2	2	1	2	1,945.79	249	265	TRUE	
SNU216LR_PC3_02	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.30%	2	2	2	0.01%	6.60%	EESLVEELSPASEK	R	K	86.60%	2.38	0.214	0	1	0	0	2	1,626.71	418	431	TRUE	
SNU216LR_PC3_02	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.30%	2	2	2	0.01%	6.60%	SRLSPAGEMKPMPLSEGK	K	S	95.00%	2.67	0.323	0	0	1	0	2	1,994.94	441	458	TRUE	
SNU216LR_PC3_02	Paraspeckle protein 1 alpha isoform	IPI00103525	58,744.50	100.00%	1	1	1	0.01%	3.06%	FPQGPPSQMGSPMGSR	R	T	95.00%	2.57	0.311	0	1	0	0	2	1,740.72	467	482	TRUE	
SNU216LR_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	7	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.5	0.423	0	2	1	0	2	2,093.93	360	377	TRUE	
SNU216LR_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	7	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.13	0.44	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	7	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.05	0.319	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	7	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	91.90%	6.06	0.0415	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC3_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	V	95.00%	2.95	0.499	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216LR_PC3_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.07	0.427	0	0	1	0	2	3,054.38	478	503	TRUE	
SNU216LR_PC3_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.68	0.418	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216LR_PC3_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	KRVSVELTNSLFK	R	H	95.00%	2.9	0.33	0	1	1	0	2	1,600.85	660	672	TRUE	
SNU216LR_PC3_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	RVSVELTNSLFK	K	H	95.00%	2.71	0.315	0	1	1	0	2	1,472.75	661	672	TRUE	
SNU216LR_PC3_02	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	1	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	7.5	0.744	0	0	1	0	2	4,199.41	119	153	TRUE	
SNU216LR_PC3_02	SAMD4A protein	IPI00744767	79,415.70	99.30%	2	2	2	0.01%	6.41%	GFGQSNSLPTAGSVGGGMGR	R	R	90.70%	2.35	0.24	0	1	0	0	2	1,916.83	574	593	TRUE	
SNU216LR_PC3_02	SAMD4A protein	IPI00744767	79,415.70	99.30%	2	2	2	0.01%	6.41%	SVSLTPPMNVPNQPLGHGWMSHEDLR	R	A	82.90%	3.09	0.226	0	0	1	0	2	3,059.33	252	277	TRUE	
SNU216LR_PC3_02	Protein AATF	IPI00302238	63,293.10	99.80%	1	2	2	0.01%	3.38%	AGDRNSEDDGVVMTFSSVK	R	V	95.00%	4.7	0.496	0	1	1	0	2	2,093.88	198	216	TRUE	
SNU216LR_PC3_02	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	4	4	0.02%	8.68%	APAPLGTVADSLRASDGQLQAK	K	A	95.00%	4.17	0.562	0	1	1	0	2	2,246.12	187	208	TRUE	
SNU216LR_PC3_02	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	4	4	0.02%	8.68%	KWSNSQPADLAHMGR	K	S	95.00%	3.75	0.381	0	0	1	0	2	1,777.78	143	157	TRUE	
SNU216LR_PC3_02	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	4	4	0.02%	8.68%	SFSEDTLMDGPAR	R	I	95.00%	2.79	0.407	0	1	0	0	2	1,505.60	123	135	TRUE	
SNU216LR_PC3_02	Isoform 1 of Phosphoacetylglucosamine mutase	IPI00030116	59,852.40	100.00%	1	1	1	0.01%	3.69%	STIGVMVTASHNPEEDNGVK	K	L	95.00%	3.57	0.322	0	1	0	0	2	2,164.96	55	74	TRUE	
SNU216LR_PC3_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	1	2	2	0.01%	11.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.21	0.487	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	6	7	8	0.05%	10.10%	AASPSPQSVR	K	R	95.00%	1.91	0.359	0	2	0	0	2	1,079.49	745	754	TRUE	
SNU216LR_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	6	7	8	0.05%	10.10%	HRPSPPATPPPK	R	T	95.00%	2.32	0.352	0	1	1	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	6	7	8	0.05%	10.10%	KETESEAEDNLDDLEK	K	H	95.00%	4.24	0.357	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	6	7	8	0.05%	10.10%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	80.00%	4.25	0.0739	0	0	1	0	2	2,871.38	772	797	TRUE	
SNU216LR_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	6	7	8	0.05%	10.10%	RESPSPAPKPR	K	K	95.00%	2.84	0.363	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	6	7	8	0.05%	10.10%	VPKPEPIPEPKEPSPEK	K	N	95.00%	4.11	0.488	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216LR_PC3_02	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	KPEDVLDDDDAGSAPLK	R	S	95.00%	3.58	0.23	0	1	0	0	2	1,864.82	234	250	TRUE	
SNU216LR_PC3_02	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	83.60%	3.38	0.106	0	0	1	0	2	2,020.92	233	250	TRUE	
SNU216LR_PC3_02	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	3	3	3	0.02%	3.84%	ASEDTTSGSPPKK	R	S	95.00%	2.52	0.477	0	1	0	0	2	1,384.60	456	468	TRUE	
SNU216LR_PC3_02	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	3	3	3	0.02%	3.84%	ASEDTTSGSPPKKSSAGPK	R	R	95.00%	2.88	0.189	0	0	1	0	2	1,911.87	456	474	TRUE	
SNU216LR_PC3_02	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	3	3	3	0.02%	3.84%	RASEDTTSGSPPKK	K	S	89.90%	2.8	0.186	0	0	1	0	2	1,540.70	455	468	TRUE	
SNU216LR_PC3_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	8	0.05%	9.98%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	5.15	0.549	0	3	3	0	2	2,586.99	308	328	TRUE	
SNU216LR_PC3_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	8	0.05%	9.98%	HEEQQRELEEEEEENSDEDELDSHTMVK	R	T	95.00%	3.47	0.302	0	0	0	1	2	3,394.35	302	328	TRUE	
SNU216LR_PC3_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	8	0.05%	9.98%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.11	0.346	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216LR_PC3_02	Leucine-rich repeat-containing protein 47	IPI00170935	63,474.80	100.00%	2	2	2	0.01%	6.00%	EEGSLSDTEADAVSGQLPDPTTNPSAGK	K	D	95.00%	4.45	0.529	0	1	0	0	2	2,853.23	515	542	TRUE	
SNU216LR_PC3_02	Leucine-rich repeat-containing protein 47	IPI00170935	63,474.80	100.00%	2	2	2	0.01%	6.00%	KYTLENKEEGSLSDTEADAVSGQLPDPTTNF	K	D	80.20%	5.29	0.0318	0	0	1	0	2	3,729.70	508	542	TRUE	
SNU216LR_PC3_02	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.31	0.327	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216LR_PC3_02	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	3.71	0.388	0	0	1	0	2	2,696.24	364	390	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	55,223.20	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.61	0.205	0	1	0	0	2	1,770.86	49	64	TRUE	
SNU216LR_PC3_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	3	4	4	0.02%	4.85%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.09	0.517	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC3_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	3	4	4	0.02%	4.85%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.34	0.558	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC3_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	3	4	4	0.02%	4.85%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	2.74	0.22	0	0	1	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	6	6	6	0.03%	2.91%	MGQAPSQSLLPPAQDQPRSPVPSAFSDQSI	R	C	95.00%	5.14	0.342	0	0	1	0	2	3,259.52	2431	2460	TRUE	
SNU216LR_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	6	6	6	0.03%	2.91%	SRTPPSAPSQSR	R	M	95.00%	2.18	0.345	0	1	0	0	2	1,350.62	2407	2418	TRUE	
SNU216LR_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	6	6	6	0.03%	2.91%	THTTALAGRSPSPASGR	K	R	95.00%	2.39	0.276	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216LR_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	6	6	6	0.03%	2.91%	TSPPLLDR	R	A	92.30%	1.43	0.342	0	1	0	0	2	978.4658	2397	2404	TRUE	
SNU216LR_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	6	6	6	0.03%	2.91%	VPSPTPAPK	R	E	95.00%	1.62	0.413	1	0	0	0	2	973.4756	2579	2587	TRUE	
SNU216LR_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	6	6	6	0.03%	2.91%	VSGRTSPPLLDR	R	A	86.10%	2.15	0.173	0	1	0	0	2	1,377.69	2393	2404	TRUE	
SNU216LR_PC3_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMR	R	K	95.00%	3.7	0.455	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC3_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMRK	R	K	95.00%	3.67	0.357	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216LR_PC3_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	3	3	0.02%	8.25%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	6.32	0.517	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216LR_PC3_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	3	3	0.02%	8.25%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.58	0.472	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216LR_PC3_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	6	0.03%	6.69%	KTEMDKSPFNSPSPQDSPR	K	L	95.00%	3.4	0.246	0	0	1	0	2	2,227.97	327	345	TRUE	
SNU216LR_PC3_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	6	0.03%	6.69%	NWTEDMEGGISSPVKK	K	T	95.00%	4.22	0.39	0	1	1	0	2	1,857.81	312	327	TRUE	
SNU216LR_PC3_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	6	0.03%	6.69%	SPFNSPSPQDSPR	K	L	95.00%	3.37	0.431	0	1	0	0	2	1,495.62	333	345	TRUE	
SNU216LR_PC3_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	6	0.03%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	3.61	0.448	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216LR_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	21.40%	ERPEISPPSDFEHTIHVGFDAVTGEFTGMPE	K	L	95.00%	4.57	0.317	0	0	0	1	2	4,049.82	70	104	TRUE	
SNU216LR_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	21.40%	GTEAPAVVTEEEDDDEETAPPVIAPRPDHTK	K	S	95.00%	5.78	0.472	0	0	1	1	2	3,395.52	161	191	TRUE	
SNU216LR_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	21.40%	SVIDPVPAPVGDSHVDGAAKSLDK	R	Q	88.30%	2.42	0.196	0	0	1	0	2	2,454.19	197	220	TRUE	
SNU216LR_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	21.40%	YLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.95	0.477	0	1	0	0	2	2,417.14	139	160	TRUE	
SNU216LR_PC3_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	99.90%	2	2	2	0.01%	2.35%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.27	0.259	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC3_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	99.90%	2	2	2	0.01%	2.35%	RISLSDMPR	R	S	95.00%	1.95	0.286	0	1	0	0	2	1,154.54	442	450	TRUE	
SNU216LR_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	92.90%	5.79	0.0406	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216LR_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	3.79	0.269	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.15	0.237	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216LR_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.16	0.324	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216LR_PC3_02	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	9.23%	KSFTPDHVVYAR	R	S	95.00%	2.78	0.422	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216LR_PC3_02	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	9.23%	RGSSPDVHALLEITEESDAVLVDK	R	S	95.00%	4.21	0.458	0	0	1	0	2	2,740.25	363	386	TRUE	
SNU216LR_PC3_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00292000,IPI00657721	55,457.40	100.00%	1	1	1	0.01%	1.20%	SGLMST	K	-	95.00%	1.22	0.484	1	0	0	0	2	675.242	494	499	TRUE	
SNU216LR_PC3_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	5	6	0.03%	11.30%	GHTDTEGRPPSPPPTSTPEK	R	C	95.00%	2.95	0.441	0	1	1	0	2	2,167.97	353	372	TRUE	
SNU216LR_PC3_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	5	6	0.03%	11.30%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	95.00%	5.84	0.0596	0	0	1	0	2	2,903.48	310	336	TRUE	
SNU216LR_PC3_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	5	6	0.03%	11.30%	VKEEPPSPPQSPR	R	V	95.00%	3.24	0.392	0	2	1	0	2	1,527.72	297	309	TRUE	
SNU216LR_PC3_02	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	2	2	2	0.01%	3.40%	NVSSFPDDATSPLQENR	R	N	95.00%	3.84	0.5	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216LR_PC3_02	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	2	2	2	0.01%	3.40%	RNVSSFPDDATSPLQENR	R	N	95.00%	3.36	0.395	0	1	0	0	2	2,112.93	51	68	TRUE	
SNU216LR_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.25	0.233	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.5	0.408	0	3	2	0	2	2,268.82	552	570	TRUE	
SNU216LR_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	4.04	0.425	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216LR_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	2.94	0.325	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.31	0.334	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.38	0.41	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	4.32	0.416	0	1	0	0	2	2,042.89	480	499	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	AKAGLESGAEPGDGDSDTTK	K	K	95.00%	4.18	0.414	0	1	0	0	2	1,985.83	478	497	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	ESESESDETPPAAPQLIK	R	K	95.00%	2.57	0.361	0	1	0	0	2	2,007.88	449	466	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	EVELVSE	K	-	95.00%	2.07	0.204	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	5.97	0.582	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	9	0.05%	13.80%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.56	0.446	0	0	1	1	2	2,718.29	20	42	TRUE	
SNU216LR_PC3_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	2	3	3	0.02%	5.91%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	3.18	0.602	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216LR_PC3_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	2	3	3	0.02%	5.91%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.01	0.254	0	1	1	0	2	2,142.91	361	380	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	5.66	0.607	0	0	1	0	2	3,222.36	68	95	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	3.96	0.401	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216LR_PC3_02	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	99.80%	2	3	4	0.02%	4.03%	TPESQPDTPPGTPLVSQDEK	R	R	95.00%	4.14	0.117	0	1	0	0	2	2,202.98	111	130	TRUE	
SNU216LR_PC3_02	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	99.80%	2	3	4	0.02%	4.03%	TPESQPDTPPGTPLVSQDEKR	R	D	95.00%	4.81	0.477	0	1	2	0	2	2,359.08	111	131	TRUE	
SNU216LR_PC3_02	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	99.80%	2	4	4	0.02%	7.52%	SASDNTLVAMDFSGHAGR	R	V	95.00%	4.32	0.497	0	1	1	0	2	1,915.80	366	383	TRUE	
SNU216LR_PC3_02	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	99.80%	2	4	4	0.02%	7.52%	TNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.47	0.475	0	0	1	1	2	2,397.19	406	427	TRUE	
SNU216LR_PC3_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	99.60%	2	2	2	0.01%	4.05%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	3.11	0.363	0	0	1	0	2	2,045.97	488	506	TRUE	
SNU216LR_PC3_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	99.60%	2	2	2	0.01%	4.05%	TNSSDSERSPDLGHSTQIPR	R	K	91.70%	3.18	0.174	0	0	1	0	2	2,343.96	526	545	TRUE	
SNU216LR_PC3_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPK	R	Y	95.00%	4.66	0.454	0	1	1	0	2	2,165.95	217	236	TRUE	
SNU216LR_PC3_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	3.36	0.269	0	0	0	1	2	2,698.25	217	240	TRUE	
SNU216LR_PC3_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.21	0.482	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216LR_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	4	0.02%	6.33%	GGSPDLWK	R	S	83.20%	1.66	0.249	0	1	0	0	2	939.3974	474	481	TRUE	
SNU216LR_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	4	0.02%	6.33%	KTSPASLDFPESQK	K	S	95.00%	3.57	0.431	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	4	0.02%	6.33%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	3.39	0.429	0	0	1	0	2	2,314.11	199	219	TRUE	
SNU216LR_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	4	0.02%	6.33%	SPAGSPELR	R	K	95.00%	1.87	0.292	0	1	0	0	2	993.4402	432	440	TRUE	
SNU216LR_PC3_02	Protein Red	IPI00011875	65,633.20	100.00%	1	1	1	0.01%	2.87%	LLMTPRAAPTSAPPSK	K	S	94.80%	2.53	0.243	0	1	0	0	2	1,717.87	39	54	TRUE	
SNU216LR_PC3_02	Plastin-2	IPI00010471	70,160.90	100.00%	2	2	3	0.02%	3.51%	EGESLEDLMK	R	L	95.00%	1.78	0.191	1	0	0	0	2	1,230.50	253	262	TRUE	
SNU216LR_PC3_02	Plastin-2	IPI00010471	70,160.90	100.00%	2	2	3	0.02%	3.51%	GSVSDEEMMELR	R	E	95.00%	2.71	0.544	0	2	0	0	2	1,462.56	3	14	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	3.33	0.344	0	1	0	0	2	2,141.98	652	670	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.93	0.407	0	1	1	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein numb homolog	IPI00028059,IPI00180634,IP	65,898.10	99.80%	2	2	2	0.01%	4.61%	RTPSEADRWLEEVSK	R	S	95.00%	2.49	0.317	0	1	0	0	2	1,882.87	387	401	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein numb homolog	IPI00028059,IPI00180634,IP	65,898.10	99.80%	2	2	2	0.01%	4.61%	TNPSPTNPFSSDLQK	R	T	95.00%	3.33	0.325	0	1	0	0	2	1,712.75	583	597	TRUE	
SNU216LR_PC3_02	Non-POU domain-containing octamer-binding pr	IPI00304596	54,231.60	100.00%	1	1	1	0.01%	4.67%	FGQAATMEGIGAIGGTPPAFNR	R	A	95.00%	3.49	0.417	0	0	1	0	2	2,243.03	435	456	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	2	3	3	0.02%	6.94%	RPHTPTPGIYMGR	K	P	95.00%	2.99	0.329	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC3_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	2	3	3	0.02%	6.94%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.62	0.315	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC3_02	THO complex subunit 1	IPI00305374	75,668.80	99.80%	1	1	1	0.01%	3.50%	TGEDEDEEDNDALLKENESPDVR	K	R	95.00%	4.24	0.386	0	0	1	0	2	2,699.08	542	564	TRUE	
SNU216LR_PC3_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	6	8	0.05%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.82	0.4	0	1	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC3_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	6	8	0.05%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.76	0.378	0	1	2	1	2	2,200.10	472	489	TRUE	
SNU216LR_PC3_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	6	8	0.05%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.25	0.55	0	2	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC3_02	Isoform 1 of Zinc finger CCCH type antiviral prot	IPI00410067,IPI00410071	101,445.60	99.60%	1	1	1	0.01%	1.44%	ASLEDAPVDDLTR	R	K	92.40%	1.88	0.252	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216LR_PC3_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	99.80%	2	2	2	0.01%	9.38%	HSLDSDEEEDDDDGGSSK	K	Y	95.00%	6.3	0.636	0	1	0	0	2	2,016.68	45	62	TRUE	
SNU216LR_PC3_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	99.80%	2	2	2	0.01%	9.38%	KGPGQPSSPQRLDR	R	L	95.00%	2.31	0.271	0	0	1	0	2	1,602.78	188	201	TRUE	
SNU216LR_PC3_02	phosphoglucomutase 1	IPI00219526	61,451.10	100.00%	1	2	4	0.02%	4.09%	AIGGIILTASHNPGGPNGDFGIK	K	F	95.00%	4.45	0.506	0	2	2	0	2	2,286.13	108	130	TRUE	
SNU216LR_PC3_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	4	4	0.02%	11.30%	EVDPSTGELQSLQMPESEGPSSLDPSQEGP	K	E	81.00%	6.04	0.0196	0	0	1	0	2	3,606.60	347	380	TRUE	
SNU216LR_PC3_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	4	4	0.02%	11.30%	LTPVSPESSSTEEK	R	S	95.00%	2.34	0.255	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216LR_PC3_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	4	4	0.02%	11.30%	SRLTPVSPESSSTEEK	R	S	93.70%	3.43	0.0692	0	1	1	0	2	1,893.79	266	281	TRUE	
SNU216LR_PC3_02	Histone H1.5	IPI00217468	22,450.50	100.00%	4	6	7	0.04%	15.60%	AVKKTPK	K	K	94.40%	1.78	0.236	0	1	0	0	2	851.4752	150	156	TRUE	
SNU216LR_PC3_02	Histone H1.5	IPI00217468	22,450.50	100.00%	4	6	7	0.04%	15.60%	KVAKSPK	K	K	95.00%	1.78	0.25	0	1	0	0	2	837.4595	168	174	TRUE	
SNU216LR_PC3_02	Histone H1.5	IPI00217468	22,450.50	100.00%	4	6	7	0.04%	15.60%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.56	0.5	0	2	1	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC3_02	Histone H1.5	IPI00217468	22,450.50	100.00%	4	6	7	0.04%	15.60%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.37	0.554	0	1	1	0	2	2,190.07	1	21	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	7	0.04%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.42	0.578	0	3	3	0	2	2,051.83	68	85	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	7	0.04%	5.07%	NEEDEGHSNSSPR	K	H	95.00%	3.15	0.434	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216LR_PC3_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	4	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.77	0.475	0	2	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC3_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	4	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	4.94	0.444	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC3_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPR	K	R	95.00%	3.1	0.438	0	1	0	0	2	1,823.79	175	190	TRUE	
SNU216LR_PC3_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	EVQAEQPSSSSPR	R	R	95.00%	3.31	0.435	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216LR_PC3_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	EVQAEQPSSSSPRR	R	K	94.10%	2.31	0.197	0	1	0	0	2	1,637.73	178	191	TRUE	
SNU216LR_PC3_02	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	3	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.27	0.372	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216LR_PC3_02	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	3	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	3.89	0.379	0	1	1	0	2	2,056.96	75	92	TRUE	
SNU216LR_PC3_02	EH-domain-containing protein 4	IPI00005578	61,177.60	99.80%	2	2	2	0.01%	6.47%	DKPVYDELFYTLSPINGK	K	I	95.00%	3.72	0.344	0	1	0	0	2	2,179.04	447	464	TRUE	
SNU216LR_PC3_02	EH-domain-containing protein 4	IPI00005578	61,177.60	99.80%	2	2	2	0.01%	6.47%	ERAGGADAVQTVTGGLR	R	S	95.00%	2.96	0.242	0	0	1	0	2	1,737.83	13	29	TRUE	
SNU216LR_PC3_02	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEK	R	K	95.00%	4.13	0.398	0	0	1	0	2	2,415.04	129	149	TRUE	
SNU216LR_PC3_02	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEKK	R	D	95.00%	6.03	0.542	0	0	1	1	2	2,543.14	129	150	TRUE	
SNU216LR_PC3_02	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	3	0.02%	10.40%	GPAGEAGASPPVR	R	R	95.00%	2.45	0.204	0	1	0	0	2	1,245.56	102	114	TRUE	
SNU216LR_PC3_02	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	3	0.02%	10.40%	KPSLVSDLPWEGAAPQSPSFSGSEDSGSPK	K	H	94.30%	5.42	0.0587	0	0	1	0	2	3,124.42	206	235	TRUE	
SNU216LR_PC3_02	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	3	0.02%	10.40%	SPSLGSDLTFATR	R	T	95.00%	2.21	0.278	0	1	0	0	2	1,431.65	393	405	TRUE	
SNU216LR_PC3_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	1.69%	TDSSPNQAR	K	A	95.00%	2.36	0.312	0	1	0	0	2	1,055.42	138	146	TRUE	
SNU216LR_PC3_02	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	4.39	0.449	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216LR_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	4	0.02%	8.58%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	5.94	0.419	0	0	1	0	2	3,607.64	74	113	TRUE	
SNU216LR_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	4	0.02%	8.58%	GLSASLPDLDSENWIEVK	K	K	95.00%	2.87	0.247	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	4	0.02%	8.58%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.23	0.334	0	0	1	0	2	2,405.19	130	152	TRUE	
SNU216LR_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	4	4	4	0.02%	8.58%	SLPTTVPESPNYR	R	N	95.00%	2.41	0.237	0	1	0	0	2	1,620.67	766	778	TRUE	
SNU216LR_PC3_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.80%	2	2	2	0.01%	1.68%	AEDSDSEPEPEDNVR	K	L	95.00%	2.17	0.253	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216LR_PC3_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.80%	2	2	2	0.01%	1.68%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.55	0.232	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216LR_PC3_02	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	99.70%	2	2	3	0.02%	5.09%	EGSQGELTPANSQSR	R	M	95.00%	2.47	0.38	0	2	0	0	2	1,640.69	508	522	TRUE	
SNU216LR_PC3_02	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	99.70%	2	2	3	0.02%	5.09%	NQIHVKSPPREGSQGELTPANSQSR	R	M	93.10%	2.81	0.215	0	0	0	1	2	2,797.34	498	522	TRUE	
SNU216LR_PC3_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	6	6	0.03%	12.70%	AAIPPPVYEEQDRPRSPTGPSNSFLANMGG	K	I	95.00%	3.62	0.186	0	0	0	1	2	3,771.80	114	148	TRUE	
SNU216LR_PC3_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	6	6	0.03%	12.70%	RPDPDSDEDEDYER	R	E	95.00%	3.91	0.6	0	1	1	0	2	1,817.65	57	70	TRUE	
SNU216LR_PC3_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	6	6	0.03%	12.70%	RPDPDSDEDEDYERER	R	R	95.00%	3.58	0.344	0	0	1	0	2	2,102.79	57	72	TRUE	
SNU216LR_PC3_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	6	6	0.03%	12.70%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.54	0.581	0	1	1	0	2	2,052.92	129	148	TRUE	
SNU216LR_PC3_02	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	52,489.20	99.80%	1	1	1	0.01%	2.98%	RASVRGSSEEDEDAR	R	T	95.00%	2.78	0.238	0	1	0	0	2	1,823.70	132	146	TRUE	
SNU216LR_PC3_02	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	GPDEAMEDGEEGSDDEAEWVVTK	K	D	95.00%	5.77	0.666	0	3	1	0	2	2,574.97	426	448	TRUE	
SNU216LR_PC3_02	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	SKYDEIFYNLAPADGKLSGSK	K	A	95.00%	3.34	0.301	0	0	1	0	2	2,383.12	451	471	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	4	5	5	0.03%	5.49%	KPSKEMSSDSEYDSDDDR	K	T	95.00%	2.58	0.271	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	4	5	5	0.03%	5.49%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3.54	0.494	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	4	5	5	0.03%	5.49%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.83	0.413	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	4	5	5	0.03%	5.49%	WDGSEEDEDNSKK	K	I	95.00%	2.36	0.336	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC3_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	99.80%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	3.36	0.439	0	2	0	0	2	1,811.70	491	505	TRUE	
SNU216LR_PC3_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	99.80%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.4	0.281	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216LR_PC3_02	Isoform 1 of Signal recognition particle 68 kDa pr	IPI00168388	70,732.00	100.00%	1	1	1	0.01%	4.15%	QVPGGGGGGGSGGGGGSGGGGSGGGR	K	G	85.00%	1.84	0.276	0	1	0	0	2	1,923.77	6	31	TRUE	
SNU216LR_PC3_02	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	ALSSDSILSPAPDAR	R	A	95.00%	3.05	0.35	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216LR_PC3_02	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	ASTPDWVSEGPQPGLR	R	R	95.00%	3.01	0.476	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216LR_PC3_02	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	3	3	0.02%	6.48%	HLSESSGKPLSTK	R	Q	95.00%	2.78	0.232	0	1	0	0	2	1,450.69	469	481	TRUE	
SNU216LR_PC3_02	Septin-2	IPI00014177	41,488.20	100.00%	2	4	4	0.02%	5.54%	IYHLPDAESDEDEDFK	K	E	95.00%	2.69	0.354	0	1	0	0	2	2,002.80	210	225	TRUE	
SNU216LR_PC3_02	Septin-2	IPI00014177	41,488.20	100.00%	2	4	4	0.02%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.38	0.387	0	1	1	1	2	2,517.05	210	229	TRUE	
SNU216LR_PC3_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	3	6	0.03%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	2.94	0.184	0	0	1	0	2	1,548.75	298	311	TRUE	
SNU216LR_PC3_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	3	6	0.03%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.82	0.513	0	2	3	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC3_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	3	3	4	0.02%	4.33%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	4.97	0.425	0	0	0	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC3_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	3	3	4	0.02%	4.33%	SSSISEEKGDSDDEKPR	K	K	95.00%	3.49	0.427	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC3_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	3	3	4	0.02%	4.33%	TAQVPSPPR	R	G	95.00%	2.17	0.271	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	KAEPSEVDMNSPK	K	S	95.00%	3.35	0.329	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	KKAEPSEVDMNSPK	K	S	95.00%	3.16	0.197	0	0	1	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	KKEEPSQNDISPK	K	T	95.00%	3.24	0.51	0	1	0	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	NEEPSEEEIDAPKPK	K	K	95.00%	3.49	0.334	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC3_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	1	2	2	0.01%	2.05%	RTSMGGTQQQFVEGVR	R	M	95.00%	4.28	0.392	0	1	1	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC3_02	WDR79 protein	IPI00306087	59,310.10	99.90%	2	2	2	0.01%	8.03%	GDPPRLSPDPVAGSAVSQELR	R	E	95.00%	3.5	0.242	0	0	1	0	2	2,228.07	48	68	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	WDR79 protein	IPI00306087	59,310.10	99.90%	2	2	2	0.01%	8.03%	VFPEPTESGDEGEELGLPLLSTR	R	H	95.00%	4.27	0.35	0	1	0	0	2	2,552.18	484	506	TRUE	
SNU216LR_PC3_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	2	2	0.01%	4.86%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.4	0.402	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216LR_PC3_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	2	2	0.01%	4.86%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	3.75	0.0639	0	1	0	0	2	2,009.92	238	257	TRUE	
SNU216LR_PC3_02	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.80%	2	3	3	0.02%	10.50%	AVSETPAVPPVSEDEDDDDDDATPPPVIAPI	K	S	95.00%	5.83	0.49	0	0	1	1	2	3,888.73	163	198	TRUE	
SNU216LR_PC3_02	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.80%	2	3	3	0.02%	10.50%	DVATSPISPTENNTTPPDALTR	R	N	95.00%	4.76	0.0104	0	1	0	0	2	2,377.09	216	237	TRUE	
SNU216LR_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	6	6	0.03%	10.70%	DFQEYVEPGEDFPASPQR	R	R	95.00%	3.72	0.44	0	1	1	0	2	2,190.90	193	210	TRUE	
SNU216LR_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	6	6	0.03%	10.70%	DFQEYVEPGEDFPASPQRR	R	N	87.70%	2.69	0.151	0	1	0	0	2	2,347.00	193	211	TRUE	
SNU216LR_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	6	6	0.03%	10.70%	KPVTVSPTTPTSPTEGEAS	R	-	92.30%	3.47	0.0566	0	1	0	0	2	1,965.91	505	523	TRUE	
SNU216LR_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	6	6	0.03%	10.70%	SVSSNVASVSPIPAGSK	R	K	95.00%	3.94	0.117	0	1	0	0	2	1,666.80	412	428	TRUE	
SNU216LR_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	6	6	0.03%	10.70%	SVSSNVASVSPIPAGSKK	R	I	95.00%	3.21	0.356	0	1	0	0	2	1,794.90	412	429	TRUE	
SNU216LR_PC3_02	Protein LYRIC	IPI00328715	63,838.40	100.00%	1	1	1	0.01%	1.55%	SETSWESPK	K	Q	95.00%	2.07	0.249	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216LR_PC3_02	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	48,851.60	99.60%	2	2	2	0.01%	6.52%	RNSTDSRPVSVTYR	K	F	92.00%	2.67	0.16	0	0	1	0	2	1,717.80	231	244	TRUE	
SNU216LR_PC3_02	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	48,851.60	99.60%	2	2	2	0.01%	6.52%	SNSLPHSAVSNAGSK	R	S	95.00%	2.6	0.322	0	0	1	0	2	1,535.68	308	322	TRUE	
SNU216LR_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	13	0.08%	10.40%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	5.32	0.0507	0	1	0	0	2	2,540.96	240	261	TRUE	
SNU216LR_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	13	0.08%	10.40%	GLRDSHSSEEDEASSQTDLSQTISK	R	K	95.00%	3.31	0.273	0	0	1	0	2	2,947.13	237	261	TRUE	
SNU216LR_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	13	0.08%	10.40%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	5.16	0.587	0	2	2	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	13	0.08%	10.40%	RGLRDSHSSEEDEASSQTDLSQTISK	R	K	95.00%	3.47	0.229	0	0	1	0	2	3,103.23	236	261	TRUE	
SNU216LR_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	13	0.08%	10.40%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	6.14	0.53	0	2	4	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.20%	2	2	2	0.01%	10.30%	AQVLATIIHGHAGAFPAAGDAGEGAPGGGS	R	V	95.00%	6.57	0.606	0	0	1	0	2	3,093.42	283	315	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.20%	2	2	2	0.01%	10.30%	SRSFTLDDESLK	R	Y	83.20%	2.53	0.135	0	1	0	0	2	1,477.66	41	52	TRUE	
SNU216LR_PC3_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	99.80%	1	2	2	0.01%	2.77%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	4.36	0.403	0	1	1	0	2	2,697.03	317	338	TRUE	
SNU216LR_PC3_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	99.80%	2	2	2	0.01%	2.95%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	4.99	0.549	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216LR_PC3_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	99.80%	2	2	2	0.01%	2.95%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.23	0.0894	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216LR_PC3_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	2	2	2	0.01%	4.20%	AGVVNGTGAPGQSPGAGR	K	A	95.00%	2.9	0.355	0	1	0	0	2	1,632.75	374	391	TRUE	
SNU216LR_PC3_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	2	2	2	0.01%	4.20%	LPEASQSPLVLK	R	Q	95.00%	2.79	0.223	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216LR_PC3_02	Isoform Delta of Poliovirus receptor-related prote	IPI00022661	57,741.90	100.00%	2	2	2	0.01%	9.11%	AKLEAQEMPSQLFTLGASEHSPLK	K	T	95.00%	5.6	0.478	0	0	1	0	2	2,692.31	413	436	TRUE	
SNU216LR_PC3_02	Isoform Delta of Poliovirus receptor-related prote	IPI00022661	57,741.90	100.00%	2	2	2	0.01%	9.11%	EQTLQGAEEDEDLEGPPSYKPPTPK	K	A	95.00%	4.21	0.271	0	0	1	0	2	2,835.26	388	412	TRUE	
SNU216LR_PC3_02	PREDICTED: similar to Forkhead box protein K1 (h	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.03%	10.00%	EEAPASPLRPLYPQISPLK	K	I	95.00%	2.38	0.218	0	1	0	0	2	2,266.09	45	63	TRUE	
SNU216LR_PC3_02	PREDICTED: similar to Forkhead box protein K1 (h	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.03%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	2.71	0.398	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC3_02	PREDICTED: similar to Forkhead box protein K1 (h	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.03%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	4.15	0.426	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216LR_PC3_02	PREDICTED: similar to Forkhead box protein K1 (h	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.03%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	2.77	0.369	0	1	1	0	2	1,585.72	253	267	TRUE	
SNU216LR_PC3_02	CDA02	IPI00012462	67,852.50	100.00%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	4.24	0.427	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216LR_PC3_02	BC282485_1	IPI00295425	57,369.40	100.00%	3	3	3	0.02%	8.40%	GRPARPSPSPTGGR	R	A	87.10%	1.91	0.312	0	1	0	0	2	1,552.68	328	341	TRUE	
SNU216LR_PC3_02	BC282485_1	IPI00295425	57,369.40	100.00%	3	3	3	0.02%	8.40%	GRRTPPVQPPPTR	R	E	95.00%	3.2	0.248	0	0	1	0	2	1,538.80	282	294	TRUE	
SNU216LR_PC3_02	BC282485_1	IPI00295425	57,369.40	100.00%	3	3	3	0.02%	8.40%	LGSGGSGDGPSVSWSR	R	Q	95.00%	2.44	0.333	0	1	0	0	2	1,665.63	371	386	TRUE	
SNU216LR_PC3_02	Isoform 1 of MAGUK p55 subfamily member 5	IPI00174976	77,310.40	99.30%	1	1	1	0.01%	1.78%	NVDLASPEEHQK	K	H	85.50%	2.05	0.188	0	1	0	0	2	1,446.63	20	31	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	7	7	8	0.05%	19.50%	DTSATSQSVNGSPQAEQPSLESTSK	K	E	95.00%	3.96	0.108	0	1	0	0	2	2,616.13	51	75	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	7	7	8	0.05%	19.50%	LPLVPESPRR	R	M	95.00%	2.34	0.412	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	7	7	8	0.05%	19.50%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	3.71	0.463	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	7	7	8	0.05%	19.50%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.27	0.497	0	2	0	0	2	2,008.94	381	399	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	7	7	8	0.05%	19.50%	SQDATFSPGSEQAEK	R	S	95.00%	3.5	0.322	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	7	7	8	0.05%	19.50%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	4.69	0.188	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216LR_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	7	7	8	0.05%	19.50%	SWDSSSPVDRPEPEAASPTTR	R	T	95.00%	3.55	0.362	0	0	1	0	2	2,352.01	354	374	TRUE	
SNU216LR_PC3_02	Postreplication repair protein RAD18	IPI00024579	56,195.70	99.90%	2	2	2	0.01%	4.85%	NDLQDTEISPR	K	Q	95.00%	2.33	0.216	0	1	0	0	2	1,367.58	463	473	TRUE	
SNU216LR_PC3_02	Postreplication repair protein RAD18	IPI00024579	56,195.70	99.90%	2	2	2	0.01%	4.85%	NHLLQFALESPAK	R	S	95.00%	3.08	0.373	0	1	0	0	2	1,547.76	90	102	TRUE	
SNU216LR_PC3_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	IRDWHLKQSPASPER	K	D	95.00%	3.19	0.216	0	0	1	0	2	1,899.92	136	150	TRUE	
SNU216LR_PC3_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	MIGFPSSAGSVSPR	K	S	95.00%	2.7	0.459	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216LR_PC3_02	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.70%	2	2	3	0.02%	10.50%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	4.29	0.585	0	0	2	0	2	2,916.11	144	170	TRUE	
SNU216LR_PC3_02	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.70%	2	2	3	0.02%	10.50%	AESPSPAPPPGLR	R	G	94.00%	2.14	0.217	0	1	0	0	2	1,355.64	306	318	TRUE	
SNU216LR_PC3_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	107,193.00	99.00%	2	2	2	0.01%	2.46%	HLDRSPESDRPR	R	K	80.90%	2.18	0.219	0	0	1	0	2	1,544.70	652	663	TRUE	
SNU216LR_PC3_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	107,193.00	99.00%	2	2	2	0.01%	2.46%	SLSPGGAALGYR	R	D	95.00%	2.66	0.267	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216LR_PC3_02	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	3	3	0.02%	3.84%	TEDGDWEWSDDEMDEK	K	S	95.00%	3.19	0.505	0	1	0	0	2	2,066.68	379	394	TRUE	
SNU216LR_PC3_02	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	3	3	0.02%	3.84%	TEDGDWEWSDDEMDEKSEEGK	K	A	95.00%	4.22	0.598	0	1	1	0	2	2,596.92	379	399	TRUE	
SNU216LR_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	6	0.03%	6.60%	EDTDHEEKASNEDVTK	K	A	95.00%	2.78	0.241	0	0	1	0	2	1,926.76	120	135	TRUE	
SNU216LR_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	6	0.03%	6.60%	ETSVSKEDTDHEEK	K	A	95.00%	3.24	0.373	0	1	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	6	0.03%	6.60%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.78	0.377	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216LR_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	6	0.03%	6.60%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	4.68	0.394	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC3_02	Phosphate-regulating neutral endopeptidase	REVERSE_IPI00020366-R	86,476.90	99.10%	1	1	1	0.01%	2.54%	VALSLTAQDLKLIHENSAK	R	D	81.90%	2.68	0.154	0	0	1	0	2	2,211.08	519	537	TRUE	
SNU216LR_PC3_02	TXNDC14 protein	IPI00556619	29,643.50	100.00%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	3.9	0.158	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216LR_PC3_02	TXNDC14 protein	IPI00556619	29,643.50	100.00%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	92.50%	3.69	0.167	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216LR_PC3_02	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	99.80%	2	2	2	0.01%	5.94%	NYSVGSRPLKPLSPLR	R	A	95.00%	2.75	0.222	0	0	1	0	2	1,863.98	481	496	TRUE	
SNU216LR_PC3_02	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	99.80%	2	2	2	0.01%	5.94%	RNSFTPLSSSNTIR	R	R	95.00%	2.81	0.243	0	0	1	0	2	1,659.79	464	477	TRUE	
SNU216LR_PC3_02	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	4	4	0.02%	9.08%	AGGASPAASSTAQPPTQHR	R	L	95.00%	3.85	0.508	0	1	1	0	2	1,871.84	449	467	TRUE	
SNU216LR_PC3_02	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	4	4	0.02%	9.08%	KASPEPEGEAAGK	R	M	95.00%	2.49	0.381	0	1	0	0	2	1,350.59	382	394	TRUE	
SNU216LR_PC3_02	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	4	4	0.02%	9.08%	NVAEALGHSPKDPGGGGGPVR	K	A	95.00%	3.64	0.464	0	0	1	0	2	2,051.97	428	448	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	EESDGEYDEFGR	R	K	95.00%	2.78	0.488	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	EESDGEYDEFGRK	R	K	95.00%	3.05	0.487	0	1	0	0	2	1,640.61	118	130	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.67	0.433	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	3.32	0.298	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	3.31	0.3	0	0	1	0	2	2,419.90	147	166	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	SRSPESQVIGENTK	R	Q	95.00%	4.09	0.439	0	2	0	0	2	1,611.74	305	318	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	YNLDASEEEDSNK	K	K	95.00%	2.61	0.45	0	1	0	0	2	1,593.60	183	195	TRUE	
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	YNLDASEEEDSNKK	K	K	95.00%	2.94	0.293	0	1	0	0	2	1,721.69	183	196	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	9	9	10	0.06%	21.90%	YNLDASEEEDSNKKK	K	S	95.00%	2.73	0.177	0	1	0	0	2	1,849.79	183	197	TRUE	
SNU216LR_PC3_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	3	3	3	0.02%	3.95%	SLDNNYSTPNER	K	G	95.00%	2.23	0.209	0	1	0	0	2	1,489.60	839	850	TRUE	
SNU216LR_PC3_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	3	3	3	0.02%	3.95%	TLDRSGDLGDMEPLK	R	G	95.00%	2.92	0.36	0	1	0	0	2	1,726.77	856	870	TRUE	
SNU216LR_PC3_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	3	3	3	0.02%	3.95%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.88	0.353	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	ETQSPEQVKSEK	K	L	95.00%	2.67	0.351	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.88	0.513	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.12	0.439	0	0	1	0	2	2,726.13	369	391	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	KAEGEPQEESPLK	K	S	86.50%	2.49	0.206	0	0	1	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	KAEGEPQEESPLKSK	K	S	95.00%	4.3	0.552	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	KETQSPEQVKSEK	K	L	95.00%	2.98	0.328	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	LKDLFDYSPPLHK	K	N	95.00%	2.59	0.258	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	NTPSQHSHSIQHSPER	K	S	95.00%	2.68	0.257	0	0	2	0	2	1,921.83	256	271	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.93	0.52	0	1	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	94.70%	3.4	0.161	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	4.32	0.448	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	YSPSQNSPIHHIPSR	R	R	95.00%	2.37	0.213	0	1	1	0	2	1,799.82	284	298	TRUE	
SNU216LR_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	19	0.11%	17.00%	YSPSQNSPIHHIPSRR	R	S	88.00%	2.68	0.156	0	0	1	0	2	2,035.89	284	299	TRUE	
SNU216LR_PC3_02	Isoform Long of Dual specificity protein kinase CL	IPI00028071,IPI00478691,IP	60,091.50	98.80%	1	2	2	0.01%	4.61%	AKSVEDDAEGHLIYHVGDWLQER	R	Y	95.00%	5.18	0.494	0	0	1	1	2	2,747.25	140	162	TRUE	
SNU216LR_PC3_02	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	1	1	1	0.01%	1.74%	TSPLNSSGSSQGR	K	N	95.00%	2.85	0.54	0	1	0	0	2	1,357.57	544	556	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	6	6	0.03%	9.07%	DYDDMSPR	K	R	95.00%	1.57	0.241	1	0	0	0	2	1,078.35	279	286	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	6	6	0.03%	9.07%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.66	0.386	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	6	6	0.03%	9.07%	IILDLISESPIK	K	G	95.00%	2.66	0.218	0	1	0	0	2	1,420.77	208	219	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	6	6	0.03%	9.07%	IILDLISESPIKGR	K	A	95.00%	2.83	0.241	0	1	1	0	2	1,633.89	208	221	TRUE	
SNU216LR_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	6	6	0.03%	9.07%	RDYDDMSPR	R	R	95.00%	2.02	0.209	1	0	0	0	2	1,234.46	278	286	TRUE	
SNU216LR_PC3_02	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	99.80%	2	2	2	0.01%	6.87%	NFTKPQDGDVIAPLITPQKK	R	E	95.00%	3.61	0.233	0	0	1	0	2	2,290.18	577	596	TRUE	
SNU216LR_PC3_02	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	99.80%	2	2	2	0.01%	6.87%	TPSNTPSAEADWSPGLELHPDYK	R	T	95.00%	4.29	0.29	0	0	1	0	2	2,592.13	21	43	TRUE	
SNU216LR_PC3_02	Isoform 1 of Cisplatin resistance-associated overe	IPI00107745	51,467.10	99.80%	1	2	4	0.02%	5.56%	ESDTKNEVNGTSEDIKSEGDTQSN	K	-	95.00%	3.91	0.341	0	1	3	0	2	2,664.08	409	432	TRUE	
SNU216LR_PC3_02	Alpha-1-syntrophin	IPI00164528	53,896.40	99.80%	2	2	3	0.02%	5.94%	NSTGGTSVGWDSPPASPLQR	K	Q	95.00%	3.25	0.316	0	2	0	0	2	2,093.93	178	197	TRUE	
SNU216LR_PC3_02	Alpha-1-syntrophin	IPI00164528	53,896.40	99.80%	2	2	3	0.02%	5.94%	QPSSPGPTPR	R	N	95.00%	1.97	0.345	0	1	0	0	2	1,103.49	198	207	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	AATSGVPSIYAPSTYAHLSPAK	K	T	95.00%	3.17	0.228	0	1	1	0	2	2,269.09	295	316	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	AMSEVTSLHEDDWR	R	S	95.00%	2.69	0.358	0	1	0	0	2	1,755.70	411	424	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	4.89	0.575	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	SRDDLYDQDDSR	R	D	95.00%	2.51	0.331	0	1	0	0	2	1,564.59	511	522	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	SRDDLYDQDDSRDFPR	R	S	95.00%	2.97	0.266	0	1	0	0	2	2,079.84	511	526	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	SRSRDDLYDQDDSR	R	D	95.00%	3.43	0.363	0	1	0	0	2	1,807.72	509	522	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	SSSAGGQGSYVPLLR	R	D	95.00%	2.54	0.3	0	1	0	0	2	1,558.73	344	358	TRUE	
SNU216LR_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	10	10	0.06%	13.90%	SVDALDDLTPPSTAESGSR	R	S	95.00%	4.41	0.129	0	1	0	0	2	1,997.87	474	492	TRUE	
SNU216LR_PC3_02	Matrin-3	IPI00017297	94,626.70	100.00%	2	4	4	0.02%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.03	0.422	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC3_02	Matrin-3	IPI00017297	94,626.70	100.00%	2	4	4	0.02%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.95	0.266	0	1	1	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC3_02	P63 protein	IPI00141318	66,022.20	100.00%	1	1	1	0.01%	2.16%	GAHPSGGADDVAK	K	K	95.00%	2.25	0.401	0	1	0	0	2	1,261.52	22	34	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	100.00%	3	3	3	0.02%	4.30%	SPSVPKSPTPK	K	S	95.00%	2.57	0.192	0	1	0	0	2	1,204.60	8	18	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	100.00%	3	3	3	0.02%	4.30%	SPSVPKSPTPKSPPSR	K	K	95.00%	2.53	0.307	0	1	0	0	2	1,808.83	8	23	TRUE	
SNU216LR_PC3_02	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	100.00%	3	3	3	0.02%	4.30%	SPTPKSPPSR	K	K	95.00%	1.61	0.319	0	1	0	0	2	1,133.54	14	23	TRUE	
SNU216LR_PC3_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.53	0.42	0	1	0	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC3_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.36	0.391	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC3_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	VLDEEGSER	K	E	95.00%	1.64	0.296	0	1	0	0	2	1,113.45	610	618	TRUE	
SNU216LR_PC3_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	98.60%	1	1	1	0.01%	2.54%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	3.47	0.182	0	0	1	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC3_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	6	6	0.03%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	4.77	0.46	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216LR_PC3_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	6	6	0.03%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	4.05	0.351	0	0	1	0	2	3,118.29	334	362	TRUE	
SNU216LR_PC3_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	6	6	0.03%	15.10%	DLHQGIEAASDEEDLR	R	W	95.00%	2.83	0.282	0	1	0	0	2	1,877.79	267	282	TRUE	
SNU216LR_PC3_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	6	6	0.03%	15.10%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	3.76	0.352	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216LR_PC3_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	6	6	0.03%	15.10%	GGRSPDEVTLTSIVPTR	K	D	95.00%	3.25	0.34	0	0	1	0	2	1,864.92	317	333	TRUE	
SNU216LR_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	5	5	6	0.03%	8.37%	AIGSTSKPQESPK	R	G	95.00%	2.44	0.329	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216LR_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	5	5	6	0.03%	8.37%	AIGSTSKPQESPKGK	R	R	95.00%	3.34	0.394	0	1	0	0	2	1,594.78	231	245	TRUE	
SNU216LR_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	5	5	6	0.03%	8.37%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.69	0.223	0	1	0	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	5	5	6	0.03%	8.37%	TKPTQAAGPSSPQKPPTPEETK	K	A	95.00%	3	0.299	0	2	0	0	2	2,357.14	437	458	TRUE	
SNU216LR_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	5	5	6	0.03%	8.37%	TPSKPPAQLSPSVPK	K	R	95.00%	2.52	0.282	0	1	0	0	2	1,613.83	257	271	TRUE	
SNU216LR_PC3_02	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	3	7	0.04%	6.29%	KTSSDDESEEDEDDLLQR	K	T	93.80%	3.99	0.0193	0	1	0	0	2	2,270.82	203	220	TRUE	
SNU216LR_PC3_02	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	3	7	0.04%	6.29%	TSSDDESEEDEDDLLQR	K	T	82.20%	3.52	0.015	0	1	0	0	2	2,142.73	204	220	TRUE	
SNU216LR_PC3_02	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	3	7	0.04%	6.29%	VQEHEDSGDSEVENEAK	R	G	95.00%	3.82	0.538	0	5	0	0	2	2,061.73	115	131	TRUE	
SNU216LR_PC3_02	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	99.80%	2	2	2	0.01%	3.09%	KSVAAEGALLPQTPPSPR	R	N	95.00%	3.93	0.377	0	0	1	0	2	1,898.97	279	296	TRUE	
SNU216LR_PC3_02	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	99.80%	2	2	2	0.01%	3.09%	SVAAEGALLPQTPPSPR	K	N	95.00%	3.18	0.386	0	0	1	0	2	1,770.88	280	296	TRUE	
SNU216LR_PC3_02	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	4	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	95.00%	3.38	0.132	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216LR_PC3_02	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	4	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.72	0.501	0	2	1	0	2	2,394.07	428	451	TRUE	
SNU216LR_PC3_02	Histone deacetylase 2	IPI00289601	55,365.50	100.00%	1	2	7	0.04%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	5.99	0.58	0	0	3	4	2	3,681.55	373	405	TRUE	
SNU216LR_PC3_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	5.05	0.497	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC3_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	SSSVGSSSSYPISPAVSR	R	T	87.90%	3.73	0.0321	0	1	0	0	2	1,914.79	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC3_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	4	5	0.03%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	9.84	0.228	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC3_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	4	5	0.03%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	3.95	0.379	0	2	1	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC3_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.09	0.455	0	1	1	0	2	2,873.37	59	85	TRUE	
SNU216LR_PC3_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	94.80%	4.17	0.0114	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC3_02	Dihydropyrimidinase-related protein 2	IPI00257508	62,294.00	100.00%	1	2	2	0.01%	2.10%	TSPAKQQAPPVR	K	N	95.00%	2.61	0.352	0	1	1	0	2	1,359.68	521	532	TRUE	
SNU216LR_PC3_02	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	3	3	0.02%	2.97%	RESPSEERLEPK	R	R	95.00%	2.37	0.266	0	1	1	0	2	1,536.71	921	932	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	3	3	0.02%	2.97%	SHESNAPGSAGGQASEKPR	R	E	95.00%	3.57	0.419	0	0	1	0	2	1,946.84	988	1006	TRUE	
SNU216LR_PC3_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	3	3	3	0.02%	8.01%	SLGSVQAPSYGAR	R	P	95.00%	2.48	0.225	0	1	0	0	2	1,372.63	15	27	TRUE	
SNU216LR_PC3_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	3	3	3	0.02%	8.01%	TVQSLEIDLDSMR	R	N	95.00%	2.57	0.168	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216LR_PC3_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	3	3	3	0.02%	8.01%	VRSLETENR	R	R	90.00%	1.8	0.229	0	1	0	0	2	1,183.55	98	106	TRUE	
SNU216LR_PC3_02	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	3	0.02%	15.00%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	3.83	0.467	0	1	1	0	2	2,575.01	239	266	TRUE	
SNU216LR_PC3_02	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	3	0.02%	15.00%	NMGGPYGGGNYGPGGSGGSGGYGGR	R	S	95.00%	4.01	0.05	0	1	0	0	2	2,269.87	326	350	TRUE	
SNU216LR_PC3_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.03%	9.74%	DISMEIDSPENMMR	R	H	95.00%	2.55	0.23	0	1	0	0	2	1,747.67	247	260	TRUE	
SNU216LR_PC3_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.03%	9.74%	LDQPVSAPPSPR	K	D	95.00%	3.21	0.422	0	2	0	0	2	1,343.64	235	246	TRUE	
SNU216LR_PC3_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.03%	9.74%	QLSESESSLEMDDER	R	Y	95.00%	3.4	0.447	0	2	0	0	2	1,834.71	321	335	TRUE	
SNU216LR_PC3_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.03%	9.74%	TVSSPIPVTPSPSSSR	R	P	95.00%	2.9	0.418	0	1	0	0	2	1,742.80	349	364	TRUE	
SNU216LR_PC3_02	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	5	6	0.03%	14.90%	EETNGPSNQKPVKSPDNSIK	K	M	95.00%	3.32	0.338	0	0	1	0	2	2,249.04	444	463	TRUE	
SNU216LR_PC3_02	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	5	6	0.03%	14.90%	EREESEDELEEANGNNPIDIEVDQNK	R	E	95.00%	4.58	0.443	0	1	2	0	2	3,095.30	253	278	TRUE	
SNU216LR_PC3_02	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	5	6	0.03%	14.90%	EREESEDELEEANGNNPIDIEVDQNKESK	R	K	95.00%	4.98	0.42	0	0	1	0	2	3,439.47	253	281	TRUE	
SNU216LR_PC3_02	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	5	6	0.03%	14.90%	RSQERDNLGMLVWSPNQNLSEAK	R	L	95.00%	4.74	0.377	0	0	1	0	2	2,752.29	123	145	TRUE	
SNU216LR_PC3_02	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	99.80%	1	1	1	0.01%	1.72%	KPSPQPSSPR	K	Q	95.00%	1.93	0.249	0	1	0	0	2	1,160.55	322	331	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	5	5	0.03%	10.20%	KSPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	4.5	0.464	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	5	5	0.03%	10.20%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	5.02	0.599	0	1	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	5	5	0.03%	10.20%	SPVSTRPLPSASQK	R	A	90.20%	2.33	0.192	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216LR_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	5	5	0.03%	10.20%	SSPQLDPLR	R	K	95.00%	2.15	0.263	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC3_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	3	3	4	0.02%	8.95%	DGYGGSRDSYSSSR	R	S	89.50%	1.95	0.289	0	1	0	0	2	1,573.59	318	331	TRUE	
SNU216LR_PC3_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	3	3	4	0.02%	8.95%	GLPPSMER	R	G	95.00%	1.84	0.375	0	2	0	0	2	966.4116	348	355	TRUE	
SNU216LR_PC3_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	3	3	4	0.02%	8.95%	VEQATKPSFESGR	K	R	95.00%	2.9	0.334	0	1	0	0	2	1,515.68	81	93	TRUE	
SNU216LR_PC3_02	RAC-alpha serine/threonine-protein kinase	IPI00012866	55,687.60	99.80%	1	1	1	0.01%	4.37%	SGSPSDNSGAEEMEVSLAKPK	R	H	95.00%	4.57	0.477	0	1	0	0	2	2,199.95	122	142	TRUE	
SNU216LR_PC3_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	5	0.03%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.63	0.399	0	2	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC3_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	5	0.03%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	6.33	0.539	0	0	1	0	2	3,790.49	238	271	TRUE	
SNU216LR_PC3_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	5	0.03%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	8.08	0.546	0	0	2	0	2	4,277.68	238	275	TRUE	
SNU216LR_PC3_02	Isoform 1 of Beta-catenin-like protein 1	IPI00411636,IPI00513797	65,175.20	100.00%	1	1	1	0.01%	2.66%	EYAENIGDGRSPEFR	K	E	95.00%	2.84	0.23	0	0	1	0	2	1,819.76	535	549	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	2	2	0.01%	10.30%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.31	0.379	0	0	1	0	2	2,544.30	33	57	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	2	2	0.01%	10.30%	GIPLATGDTSPEPELLPGAPLPPPKEVINGNI	K	T	95.00%	3.61	0.289	0	0	1	0	2	3,411.78	33	65	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	3	0.02%	5.73%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.97	0.488	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC3_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	3	0.02%	5.73%	SRTGSESSQTGTSTTSSR	R	N	95.00%	3.51	0.0795	0	2	0	0	2	1,976.76	418	435	TRUE	
SNU216LR_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.50%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.21	0.515	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.50%	EKVSSIDLEIDSLSSLLDDMTKNDPFK	R	A	95.00%	5.84	0.376	0	0	1	0	2	3,119.47	149	175	TRUE	
SNU216LR_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.50%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.8	0.386	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216LR_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.50%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	4.27	0.471	0	1	1	0	2	1,912.96	264	282	TRUE	
SNU216LR_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.50%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.05	0.306	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.50%	SPGAPGPLTLK	R	E	95.00%	2.02	0.316	1	0	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.50%	VSSIDLEIDSLSSLLDDMTK	K	N	95.00%	4.44	0.455	0	1	0	0	2	2,261.05	151	170	TRUE	
SNU216LR_PC3_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	120,631.70	99.80%	2	2	2	0.01%	4.08%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	3.71	0.0897	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC3_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	120,631.70	99.80%	2	2	2	0.01%	4.08%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	3.15	0.264	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.05%	13.10%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	4.11	0.383	0	0	1	1	2	3,065.37	341	365	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.05%	13.10%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.57	0.403	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.05%	13.10%	QESDPEDDDVK	R	K	95.00%	3.59	0.559	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.05%	13.10%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.66	0.481	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.05%	13.10%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.26	0.454	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.05%	13.10%	SLSPGKENVSALDMEK	K	E	95.00%	3.53	0.392	0	1	0	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.05%	13.10%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	3.9	0.347	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216LR_PC3_02	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.18	0.307	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216LR_PC3_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.76%	GADNDGSGSESGYTTPK	K	K	95.00%	2.78	0.385	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC3_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.76%	NDSWGSFDLR	R	A	95.00%	1.96	0.311	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC3_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.76%	NLSSDEATNPISR	K	V	95.00%	2.81	0.452	0	1	0	0	2	1,483.64	110	122	TRUE	
SNU216LR_PC3_02	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	1	1	1	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	3.3	0.317	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC3_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	99.90%	1	2	3	0.02%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	6.21	0.526	0	0	2	1	2	3,607.45	259	290	TRUE	
SNU216LR_PC3_02	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	3	0.02%	4.19%	AGGPATPLSPTR	R	L	95.00%	1.75	0.304	0	2	0	0	2	1,284.54	29	40	TRUE	
SNU216LR_PC3_02	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	3	0.02%	4.19%	ATSSSSGSLSATGR	R	L	92.80%	2.41	0.175	0	1	0	0	2	1,348.57	417	430	TRUE	
SNU216LR_PC3_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.13	0.427	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC3_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	SPSFGDPQLSPEARPR	R	C	95.00%	2.42	0.281	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.62	0.461	0	2	0	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.25	0.259	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	GGVTGSPEASISGSK	K	G	95.00%	2.77	0.408	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	GHYEVTGSDDETGK	K	L	95.00%	2.02	0.399	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	3.55	0.323	0	0	1	0	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	GKGGVTGSPEASISGSK	K	G	95.00%	3.8	0.166	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	GSRVDIETPNLEGTLTGPR	K	L	89.30%	2.71	0.187	0	1	0	0	2	2,171.97	291	309	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	ISAPNVDFNLEGPK	R	V	95.00%	2.68	0.454	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	11	0.06%	3.28%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.25	0.286	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC3_02	Membrane-associated tyrosine- and threonine-sp	IPI00384765,IPI00742852	54,520.80	99.80%	2	2	2	0.01%	8.22%	DALDLSDINSEPPR	R	G	95.00%	2.86	0.381	0	1	0	0	2	1,621.71	464	477	TRUE	
SNU216LR_PC3_02	Membrane-associated tyrosine- and threonine-sp	IPI00384765,IPI00742852	54,520.80	99.80%	2	2	2	0.01%	8.22%	GEASETLQSPGYDPSRPESFFQQSFQR	R	L	95.00%	3.67	0.278	0	0	1	0	2	3,155.37	86	112	TRUE	
SNU216LR_PC3_02	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	3	5	0.03%	3.66%	KTGSPGSPGAGGVQSTAK	K	K	95.00%	2.93	0.416	0	2	1	0	2	1,746.75	440	457	TRUE	
SNU216LR_PC3_02	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	3	5	0.03%	3.66%	TGSPGSPGAGGVQSTAK	K	K	95.00%	3.26	0.479	0	2	0	0	2	1,618.65	441	457	TRUE	
SNU216LR_PC3_02	69 kDa protein	IPI00172590,IPI00658145	69,317.70	99.80%	1	1	1	0.01%	2.17%	GSPNTASAEATLPR	R	W	95.00%	2.45	0.465	0	1	0	0	2	1,451.65	566	579	TRUE	
SNU216LR_PC3_02	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.70%	1	1	1	0.01%	1.67%	EKPDSDDDLDIASLVTAK	R	L	95.00%	3.62	0.462	0	1	0	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC3_02	NMD3 homolog	IPI00101049	57,603.40	99.80%	1	1	1	0.01%	3.38%	DSAIPVESDTDDEGAPR	R	I	95.00%	3.22	0.471	0	1	0	0	2	1,853.74	461	477	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_02	Protein C9orf78	IPI00550191	33,688.60	99.80%	2	2	2	0.01%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	2.14	0.398	0	1	0	0	2	2,311.83	11	28	TRUE	
SNU216LR_PC3_02	Protein C9orf78	IPI00550191	33,688.60	99.80%	2	2	2	0.01%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	4	0.416	0	0	1	0	2	1,887.86	250	265	TRUE	
SNU216LR_PC3_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	99.50%	2	2	2	0.01%	1.39%	GLPSPYNMSSAPGSR	K	S	90.80%	2.32	0.219	0	1	0	0	2	1,600.68	2812	2826	TRUE	
SNU216LR_PC3_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	99.50%	2	2	2	0.01%	1.39%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.47	0.0119	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216LR_PC3_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	1	1	2	0.01%	3.98%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.2	0.621	0	2	0	0	2	2,555.89	331	351	TRUE	
SNU216LR_PC3_02	septin 9	IPI00748715	63,634.10	100.00%	3	5	5	0.03%	7.39%	HVDSLSQRSPK	R	A	95.00%	2.58	0.423	0	1	1	0	2	1,333.63	59	69	TRUE	
SNU216LR_PC3_02	septin 9	IPI00748715	63,634.10	100.00%	3	5	5	0.03%	7.39%	RAEVLGHKTPEPAPR	K	R	79.80%	2.77	0.2	0	0	1	0	2	1,737.88	116	130	TRUE	
SNU216LR_PC3_02	septin 9	IPI00748715	63,634.10	100.00%	3	5	5	0.03%	7.39%	SFEVEEVETPNSTPPR	R	R	95.00%	3.77	0.523	0	1	1	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	2	2	0.01%	3.42%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	2.66	0.264	0	1	0	0	2	2,046.92	510	526	TRUE	
SNU216LR_PC3_02	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	2	2	0.01%	3.42%	KKSTSLEPVER	R	S	95.00%	2.38	0.26	0	1	0	0	2	1,353.68	370	380	TRUE	
SNU216LR_PC3_02	Fibrillarin	IPI00025039	33,784.10	100.00%	1	1	1	0.01%	4.36%	RVSISEGDDKIEYR	K	A	90.30%	2.67	0.168	0	0	1	0	2	1,746.81	122	135	TRUE	
SNU216LR_PC3_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	3	3	0.02%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.81	0.377	0	1	1	0	2	2,154.05	81	100	TRUE	
SNU216LR_PC3_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	3	3	0.02%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.24	0.246	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216LR_PC3_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	2	2	0.01%	3.86%	SKPIPIMPASPQK	K	G	95.00%	2.71	0.283	0	1	0	0	2	1,473.75	596	608	TRUE	
SNU216LR_PC3_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	2	2	0.01%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	5.51	0.627	0	0	1	0	2	3,011.63	596	623	TRUE	
SNU216LR_PC3_02	exosome component 9 isoform 1	IPI00029697,IPI00607722,IP	39,235.30	99.80%	1	1	1	0.01%	3.07%	MEKAPIDTSDVEEK	K	A	95.00%	2.87	0.326	0	1	0	0	2	1,671.72	214	227	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	6	0.03%	3.20%	DHSPTPSVFNSDEER	R	Y	95.00%	3.06	0.518	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	6	0.03%	3.20%	DHSPTPSVFNSDEERYR	R	Y	95.00%	2.6	0.322	0	1	0	0	2	2,195.84	490	506	TRUE	
SNU216LR_PC3_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	6	0.03%	3.20%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.63	0.328	0	1	1	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC4_02	Poly(rC)-binding protein 1	IPI00016610	37,498.20	100.00%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	3.97	0.236	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216LR_PC4_02	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	3	3	0.02%	7.69%	KSASPEVSEGHENQHGQESEAK	R	A	95.00%	4.57	0.405	0	0	1	1	2	2,445.03	73	94	TRUE	
SNU216LR_PC4_02	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	3	3	0.02%	7.69%	SASPEVSEGHENQHGQESEAK	K	A	95.00%	3.68	0.314	0	0	1	0	2	2,316.94	74	94	TRUE	
SNU216LR_PC4_02	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	7.27%	SKSPPKSPEEEGAVSS	R	-	95.00%	2.4	0.387	0	1	0	0	2	1,855.68	205	220	TRUE	
SNU216LR_PC4_02	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	7.27%	SPEEEGAVSS	K	-	95.00%	1.67	0.267	1	0	0	0	2	1,071.39	211	220	TRUE	
SNU216LR_PC4_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPR	K	R	95.00%	2.87	0.352	0	1	0	0	2	1,823.79	175	190	TRUE	
SNU216LR_PC4_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPRR	K	K	95.00%	3.46	0.342	0	0	1	0	2	1,979.89	175	191	TRUE	
SNU216LR_PC4_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	EVQAEQPSSSSPR	R	R	95.00%	3.43	0.469	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216LR_PC4_02	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	6	0.03%	10.30%	ELTDEEAER	K	L	86.50%	1.9	0.201	0	1	0	0	2	1,171.45	106	114	TRUE	
SNU216LR_PC4_02	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	6	0.03%	10.30%	NGSLDSPGKQDTEEDEEEDEKDK	K	G	95.00%	5.81	0.448	0	0	4	0	2	2,674.05	134	156	TRUE	
SNU216LR_PC4_02	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	6	0.03%	10.30%	QDTEEDEEEDEKDKGK	K	L	95.00%	4.53	0.357	0	0	1	0	2	2,003.76	143	158	TRUE	
SNU216LR_PC4_02	Rho-GTPase-activating protein 1	IPI00020567	50,437.90	99.80%	1	1	1	0.01%	2.51%	SSSPELVTHLK	K	W	95.00%	2.24	0.243	0	1	0	0	2	1,277.61	49	59	TRUE	
SNU216LR_PC4_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GSGSGSHNWGTVKDELTESPK	R	Y	95.00%	5.09	0.445	0	1	1	0	2	2,165.95	217	236	TRUE	
SNU216LR_PC4_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GSGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	4.4	0.337	0	0	0	1	2	2,698.25	217	240	TRUE	
SNU216LR_PC4_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.73	0.503	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216LR_PC4_02	DnaJ homolog subfamily C member 9	IPI00154975	29,910.30	100.00%	1	1	1	0.01%	4.62%	KISLEDIQAFEK	K	T	95.00%	2.66	0.289	0	1	0	0	2	1,500.73	107	118	TRUE	
SNU216LR_PC4_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	4	5	0.03%	16.40%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.65	0.505	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC4_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	4	5	0.03%	16.40%	QSSPSGSEQLVR	R	R	95.00%	2.8	0.391	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC4_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	4	5	0.03%	16.40%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	90.30%	7.02	0	0	0	2	0	2	3,066.27	16	41	TRUE	
SNU216LR_PC4_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	4	5	0.03%	16.40%	STGSPTQETQAPFIAK	K	R	95.00%	3.1	0.321	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC4_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	2	2	2	0.01%	2.12%	VAGGAAPSKPASAK	K	K	95.00%	2.32	0.245	0	1	0	0	2	1,291.64	507	520	TRUE	
SNU216LR_PC4_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	2	2	2	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	90.80%	2.11	0.219	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC4_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.89	0.367	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC4_02	Probable ATP-dependent RNA helicase DDX48	IPI00009328	46,741.20	100.00%	1	1	1	0.01%	3.66%	KLDYGQHVVAGTPGR	R	V	95.00%	2.63	0.247	0	0	1	0	2	1,677.81	151	165	TRUE	
SNU216LR_PC4_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	3.18	0.316	0	1	0	0	2	1,529.66	311	325	TRUE	
SNU216LR_PC4_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	5.17	0.587	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216LR_PC4_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	4	5	0.03%	6.69%	KTEMDKSPFNSPSPQDSPR	K	L	95.00%	4.45	0.322	0	0	1	0	2	2,227.97	327	345	TRUE	
SNU216LR_PC4_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	4	5	0.03%	6.69%	NWTEDMEGGISSPVKK	K	T	95.00%	3.94	0.386	0	2	0	0	2	1,857.81	312	327	TRUE	
SNU216LR_PC4_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	4	5	0.03%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.22	0.505	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216LR_PC4_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	99.90%	2	2	2	0.01%	7.93%	SQRYSGAYGASVSDEELK	K	R	95.00%	4.62	0.0603	0	1	0	0	2	2,026.88	46	63	TRUE	
SNU216LR_PC4_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	99.90%	2	2	2	0.01%	7.93%	YSGAYGASVSDEELK	R	R	95.00%	3.16	0.371	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216LR_PC4_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.90%	3	4	4	0.02%	3.65%	RVALSDDETKETENMR	K	K	79.80%	2.18	0.205	0	1	0	0	2	1,973.86	303	318	TRUE	
SNU216LR_PC4_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.90%	3	4	4	0.02%	3.65%	VALSDDETKETENMR	R	K	95.00%	4.25	0.475	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC4_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.90%	3	4	4	0.02%	3.65%	VALSDDETKETENMRK	R	K	95.00%	3.91	0.311	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216LR_PC4_02	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	9.23%	LPATAAEPEAAVISNGEH	R	-	95.00%	3.04	0.247	0	1	0	0	2	1,856.84	503	520	TRUE	
SNU216LR_PC4_02	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	9.23%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAK	R	K	95.00%	5.75	0.477	0	0	0	1	2	3,260.56	469	498	TRUE	
SNU216LR_PC4_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	4	4	0.02%	7.53%	SESPKEPEQLR	K	K	95.00%	2.36	0.294	1	0	1	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC4_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	4	4	0.02%	7.53%	SESPKEPEQLRK	K	L	95.00%	3.11	0.356	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216LR_PC4_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	4	4	0.02%	7.53%	SSGPYGGGGQYFAKPR	R	N	95.00%	4.29	0.454	0	0	1	0	2	1,708.75	337	352	TRUE	
SNU216LR_PC4_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	5.09	0.376	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC4_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	4.05	0.483	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC4_02	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	4	5	5	0.03%	6.80%	EDLSPAFDHSPNK	K	I	95.00%	2.84	0.322	0	1	0	0	2	1,536.64	295	307	TRUE	
SNU216LR_PC4_02	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	4	5	5	0.03%	6.80%	EDLSPAFDHSPNKIMTEK	K	Y	95.00%	3.58	0.177	0	0	1	0	2	2,138.95	295	312	TRUE	
SNU216LR_PC4_02	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	4	5	5	0.03%	6.80%	ELSKEDLSPAFDHSPNK	K	I	95.00%	4.47	0.374	0	1	1	0	2	1,993.89	291	307	TRUE	
SNU216LR_PC4_02	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	4	5	5	0.03%	6.80%	WKELSKEDLSPAFDHSPNK	R	I	90.50%	3.65	0.124	0	0	1	0	2	2,308.06	289	307	TRUE	
SNU216LR_PC4_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	1	1	1	0.01%	6.31%	SWHDVQVSSAYVK	R	T	90.10%	2.05	0.216	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216LR_PC4_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	6	0.03%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.9	0.328	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216LR_PC4_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	6	0.03%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.87	0.456	0	2	2	0	2	1,767.78	38	56	TRUE	
SNU216LR_PC4_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	6	0.03%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.26	0.501	0	1	0	0	2	2,132.89	38	58	TRUE	
SNU216LR_PC4_02	Syntaxin-4	IPI00029730	34,179.70	99.80%	1	2	2	0.01%	6.40%	AIEPQKEEADENYNSVNTR	K	M	95.00%	3.85	0.481	0	1	1	0	2	2,286.99	103	121	TRUE	
SNU216LR_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	3	3	3	0.02%	9.21%	DGYGGSRDSYSSSR	R	S	95.00%	2.21	0.285	0	1	0	0	2	1,573.59	318	331	TRUE	
SNU216LR_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	3	3	3	0.02%	9.21%	DYGHSSSRDDYPSR	R	G	81.60%	2.07	0.192	0	1	0	0	2	1,721.66	245	258	TRUE	
SNU216LR_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	3	3	3	0.02%	9.21%	GLPPSMER	R	G	95.00%	1.53	0.352	0	1	0	0	2	966.4116	348	355	TRUE	
SNU216LR_PC4_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	4	9	0.05%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	2.78	0.296	0	1	1	0	2	1,628.71	298	311	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	4	9	0.05%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.95	0.538	0	4	3	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC4_02	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	AGGSPASYHGSTSPR	K	V	95.00%	2.56	0.444	0	1	0	0	2	1,511.63	189	203	TRUE	
SNU216LR_PC4_02	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	GSSQPNLSTSHSEQEYGK	R	A	95.00%	2.49	0.269	0	0	1	0	2	2,015.83	171	188	TRUE	
SNU216LR_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	5	6	8	0.05%	10.40%	RPHTPTPGIYMGR	K	P	95.00%	2.86	0.288	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	5	6	8	0.05%	10.40%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.4	0.288	0	0	1	2	2	2,311.08	198	217	TRUE	
SNU216LR_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	5	6	8	0.05%	10.40%	RRSPSPYYSR	R	D	95.00%	2.26	0.353	0	0	1	0	2	1,348.62	262	271	TRUE	IPI00013891
SNU216LR_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	5	6	8	0.05%	10.40%	RSPSPYYSR	R	D	95.00%	2.23	0.297	0	2	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	5	6	8	0.05%	10.40%	SPSPYYSR	R	D	91.50%	1.64	0.301	1	0	0	0	2	1,116.38	264	271	TRUE	IPI00013891
SNU216LR_PC4_02	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.02%	10.70%	RASLSDLTDLEDIEGLTVR	R	Q	95.00%	4.78	0.508	0	1	1	0	2	2,183.06	238	256	TRUE	
SNU216LR_PC4_02	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.02%	10.70%	VPAEDETQSIDSEDSFVPGR	R	R	95.00%	4.35	0.505	0	2	0	0	2	2,257.95	218	237	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	2	2	2	0.01%	7.51%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	4.86	0.474	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	2	2	2	0.01%	7.51%	IESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	3.37	0.379	0	0	1	0	2	2,567.11	103	124	TRUE	
SNU216LR_PC4_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.80%	2	2	2	0.01%	0.09%	DPIYPPDPPIKLKIGLITK	R	N	95.00%	2.85	0.312	0	0	0	1	2	2,198.22	16842	16860	TRUE	
SNU216LR_PC4_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.80%	2	2	2	0.01%	0.09%	EEEYEEYEEYDYK	R	E	95.00%	2.02	0.235	0	0	1	0	2	2,057.59	10577	10589	TRUE	
SNU216LR_PC4_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	3.38%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	3.9	0.48	0	1	1	0	2	2,017.81	298	317	TRUE	
SNU216LR_PC4_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	3.38%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.01	0.424	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216LR_PC4_02	GCN1-like protein 1	IPI00001159	292,936.60	98.70%	1	1	1	0.01%	0.71%	EDAGGMIQRLMQQLLESDK	K	Y	95.00%	2.64	0.236	0	1	0	0	2	2,258.02	1374	1392	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	99.70%	2	3	3	0.02%	8.17%	RDSSESQLASTESDKPTTGR	R	V	95.00%	6.32	0.505	0	1	1	0	2	2,231.98	64	83	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	99.70%	2	3	3	0.02%	8.17%	SRSESETSTMAAK	R	K	94.20%	3.15	0.0883	0	1	0	0	2	1,464.60	143	155	TRUE	
SNU216LR_PC4_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	7.90%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	4.31	0.467	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216LR_PC4_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	7.90%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6	0.411	0	0	0	1	2	4,198.92	226	261	TRUE	
SNU216LR_PC4_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.70%	2	2	2	0.01%	4.07%	AAVVTSPPPTTAPHK	R	E	94.80%	2.09	0.245	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC4_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.70%	2	2	2	0.01%	4.07%	SPGSPVGEGTGSPPK	R	W	95.00%	2.74	0.385	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC4_02	Lamin-B1	IPI00217975	66,278.40	99.90%	1	1	1	0.01%	2.05%	AGGPTTPLSPTR	R	L	95.00%	2.17	0.239	0	1	0	0	2	1,234.58	14	25	TRUE	
SNU216LR_PC4_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	4	4	0.02%	5.86%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	4.59	0.55	0	1	1	0	2	2,669.00	89	113	TRUE	
SNU216LR_PC4_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	4	4	0.02%	5.86%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	4.61	0.441	0	0	1	0	2	2,797.10	89	114	TRUE	
SNU216LR_PC4_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	4	4	0.02%	5.86%	GNDSDGEGESDDPEK	K	K	95.00%	3.45	0.538	0	1	0	0	2	1,630.54	99	113	TRUE	
SNU216LR_PC4_02	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	4.12	0.285	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein NDRG3	IPI00005605	41,408.90	100.00%	1	1	1	0.01%	4.53%	THSTSSSLGSGESPFSR	R	S	95.00%	4.37	0.0479	0	1	0	0	2	1,803.75	329	345	TRUE	
SNU216LR_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.45%	ASPSKPASAPASR	R	S	95.00%	2.56	0.442	0	1	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.45%	DMESPTKLDVTLAK	K	D	95.00%	3.71	0.347	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.45%	DMSPLSETEMALGK	K	D	95.00%	2.97	0.442	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.45%	ETERASPIKMDLAPSK	K	D	95.00%	2.83	0.174	0	1	0	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.45%	RASPSKPASAPASR	K	S	95.00%	2.65	0.322	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	8	8	0.05%	6.45%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.09	0.38	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC4_02	syntaxin 7	IPI00289876,IPI00552913	29,815.60	100.00%	1	1	1	0.01%	5.75%	ASSRVSGSFPEDSSK	R	E	95.00%	3.39	0.3	0	1	0	0	2	1,620.69	124	138	TRUE	
SNU216LR_PC4_02	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	2	2	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE(	K	T	95.00%	7.33	0.0696	0	0	1	1	2	4,013.68	6	39	TRUE	
SNU216LR_PC4_02	26 kDa protein	IPI00217978	26,288.40	99.80%	2	4	5	0.03%	16.00%	NRHSPDHPGMGSSQASSSSSLR	K	-	95.00%	4.12	0.449	0	1	2	1	2	2,362.00	223	244	TRUE	
SNU216LR_PC4_02	26 kDa protein	IPI00217978	26,288.40	99.80%	2	4	5	0.03%	16.00%	TQDPVPPETPSDSDHKK	R	K	95.00%	3.67	0.206	0	0	1	0	2	1,957.85	184	200	TRUE	
SNU216LR_PC4_02	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	3	3	0.02%	5.19%	DATPPVSPINMEDQER	R	I	95.00%	2.43	0.33	0	1	0	0	2	1,958.76	253	268	TRUE	
SNU216LR_PC4_02	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	3	3	0.02%	5.19%	SRDATPPVSPINMEDQER	R	I	95.00%	3.51	0.235	0	1	1	0	2	2,201.89	251	268	TRUE	
SNU216LR_PC4_02	MARCKS-related protein	IPI00641181	19,397.40	99.80%	2	2	2	0.01%	14.40%	AAATPESQEPQAK	K	G	95.00%	2.06	0.354	0	1	0	0	2	1,407.62	144	156	TRUE	
SNU216LR_PC4_02	MARCKS-related protein	IPI00641181	19,397.40	99.80%	2	2	2	0.01%	14.40%	GDVTAEEAAGASPAK	R	A	95.00%	3.24	0.226	0	1	0	0	2	1,453.62	10	24	TRUE	
SNU216LR_PC4_02	Septin-2	IPI00014177	41,488.20	100.00%	2	5	7	0.04%	5.54%	IYHLPDAESDEDEDFK	K	E	95.00%	3.08	0.385	0	1	1	0	2	2,002.80	210	225	TRUE	
SNU216LR_PC4_02	Septin-2	IPI00014177	41,488.20	100.00%	2	5	7	0.04%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.53	0.405	0	1	3	1	2	2,517.05	210	229	TRUE	
SNU216LR_PC4_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.90%	2	3	3	0.02%	5.39%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.21	0.594	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC4_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.90%	2	3	3	0.02%	5.39%	SRSRDDLYDQDDSR	R	D	95.00%	2.96	0.195	0	1	0	0	2	1,807.72	509	522	TRUE	
SNU216LR_PC4_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	6	7	0.04%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	4.13	0.184	0	1	0	0	2	2,319.81	56	73	TRUE	
SNU216LR_PC4_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	6	7	0.04%	10.50%	KSLDSDESEDEEDDYQQKR	K	K	95.00%	3.38	0.261	0	1	1	0	2	2,475.91	56	74	TRUE	
SNU216LR_PC4_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	6	7	0.04%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.82	0.635	0	2	0	0	2	2,111.75	57	73	TRUE	
SNU216LR_PC4_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	6	7	0.04%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	3.92	0.413	0	1	1	0	2	2,347.81	57	74	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.86	0.385	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	4.07	0.138	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	3.4	0.479	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC4_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	99.40%	1	1	1	0.01%	2.72%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	87.60%	5.11	0.0552	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216LR_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.04	0.413	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.46	0.323	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.75	0.333	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	2.83	0.228	0	0	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC4_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	5	5	0.03%	8.98%	RPDPDSDEDEDYER	R	E	95.00%	4.07	0.575	0	1	1	0	2	1,817.65	57	70	TRUE	
SNU216LR_PC4_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	5	5	0.03%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	3.84	0.306	0	1	1	0	2	2,102.79	57	72	TRUE	
SNU216LR_PC4_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	5	5	0.03%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.72	0.517	0	1	0	0	2	2,052.92	129	148	TRUE	
SNU216LR_PC4_02	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	3	3	0.02%	14.10%	HSLEEGLDMVNR	R	E	95.00%	2.4	0.231	0	1	0	0	2	1,479.63	57	68	TRUE	
SNU216LR_PC4_02	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	3	3	0.02%	14.10%	SSSAPLIHGLSDLSQVFQPYTLR	R	T	95.00%	3.43	0.385	0	1	1	0	2	2,596.28	23	45	TRUE	
SNU216LR_PC4_02	40S ribosomal protein S3a	IPI00419880	29,814.10	100.00%	1	1	1	0.01%	4.56%	ADGYEPPVQESV	R	-	95.00%	2.04	0.419	1	0	0	0	2	1,370.55	252	263	TRUE	
SNU216LR_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	6	6	0.03%	10.60%	ETSVSKEDTDHEEK	K	A	95.00%	2.79	0.325	0	0	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	6	6	0.03%	10.60%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.36	0.291	0	0	1	0	2	2,558.08	114	135	TRUE	
SNU216LR_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	6	6	0.03%	10.60%	QSNASSDVEVEEK	K	E	89.50%	2.43	0.155	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216LR_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	6	6	0.03%	10.60%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	4.54	0.395	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	6	6	0.03%	10.60%	TGVTSTSDSEEEGDDQEGEK	K	K	85.90%	3.67	0.0186	0	1	0	0	2	2,259.77	267	286	TRUE	
SNU216LR_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	6	6	0.03%	10.60%	TGVTSTSDSEEEGDDQEGEKK	K	R	90.10%	3.65	0.0347	0	1	0	0	2	2,387.87	267	287	TRUE	
SNU216LR_PC4_02	Calnexin precursor	IPI00020984	67,570.20	99.90%	1	2	3	0.02%	3.21%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.04	0.413	0	1	2	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC4_02	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	1	1	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	95.00%	3.15	0.35	0	0	1	0	2	2,531.23	30	50	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Ubiquitin-conjugating enzyme E2 J1	IPI00006937	35,199.70	99.80%	2	3	4	0.02%	8.81%	QISFKAEVNSSGK	R	T	95.00%	2.62	0.471	0	1	0	0	2	1,474.69	182	194	TRUE	
SNU216LR_PC4_02	Ubiquitin-conjugating enzyme E2 J1	IPI00006937	35,199.70	99.80%	2	3	4	0.02%	8.81%	RLSTSPDVIQGHQPR	R	D	95.00%	4.05	0.507	0	1	2	0	2	1,770.86	264	278	TRUE	
SNU216LR_PC4_02	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	100.00%	2	3	4	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.68	0.445	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216LR_PC4_02	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	100.00%	2	3	4	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	4.13	0.416	0	2	1	0	2	2,056.96	75	92	TRUE	
SNU216LR_PC4_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	DSENLASPSEYPENGER	R	F	95.00%	3.23	0.32	0	1	0	0	2	1,973.78	617	633	TRUE	
SNU216LR_PC4_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.29	0.263	0	1	0	0	2	1,971.75	883	898	TRUE	
SNU216LR_PC4_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.99	0.56	0	2	0	0	2	1,617.62	79	92	TRUE	
SNU216LR_PC4_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.94	0.337	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216LR_PC4_02	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	80.60%	3.57	0.0132	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216LR_PC4_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	166,297.40	99.80%	2	2	2	0.01%	3.11%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.67	0.34	0	1	0	0	2	1,852.82	748	765	TRUE	
SNU216LR_PC4_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	166,297.40	99.80%	2	2	2	0.01%	3.11%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	4.28	0.376	0	0	1	0	2	3,031.34	432	458	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	100.00%	1	1	1	0.01%	5.82%	SSGSPYGGGYGSGGGSGGYGSR	R	R	90.50%	3.75	0.0279	0	1	0	0	2	1,990.76	355	376	TRUE	
SNU216LR_PC4_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.80%	2	2	2	0.01%	2.67%	KMEESDEEAVQAK	R	V	95.00%	3.78	0.251	0	1	0	0	2	1,573.65	688	700	TRUE	
SNU216LR_PC4_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.80%	2	2	2	0.01%	2.67%	SSPGAGPSDHHSASRDER	R	F	95.00%	2.85	0.172	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC4_02	Synapse-associated protein 1	IPI00059242	39,933.40	100.00%	1	1	1	0.01%	1.99%	TPPVVIK	K	S	81.50%	1.49	0.142	1	0	0	0	2	833.4534	248	254	TRUE	
SNU216LR_PC4_02	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	3	3	0.02%	7.69%	KSFTPDHVVYAR	R	S	95.00%	2.56	0.254	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216LR_PC4_02	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	3	3	0.02%	7.69%	VMIYQDEVKLPAKLSISK	K	S	95.00%	2.81	0.452	0	1	1	0	2	2,142.13	153	170	TRUE	
SNU216LR_PC4_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.76%	GADNDGSGSESGYTTPK	K	K	95.00%	3.6	0.492	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC4_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.76%	NDSWGSFDLR	R	A	95.00%	2.21	0.329	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC4_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.76%	NLSSDEATNPISR	K	V	95.00%	2.56	0.337	0	1	0	0	2	1,483.64	110	122	TRUE	
SNU216LR_PC4_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	1	1	1	0.01%	2.49%	SLDMDSIIAEVK	R	A	95.00%	2.63	0.175	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216LR_PC4_02	Hypothetical protein C12orf60	REVERSE_IPI00217688-R	27,627.90	98.60%	1	1	1	0.01%	7.35%	IYSNNKVAMLLIQTDMSR	K	S	95.00%	3.07	0.231	0	0	1	0	2	2,257.02	190	207	TRUE	
SNU216LR_PC4_02	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	99.20%	2	2	2	0.01%	1.92%	LEHSSFPEGPGPGSGDEANGPR	R	G	95.00%	3.41	0.263	0	0	1	0	2	2,273.95	2158	2179	TRUE	
SNU216LR_PC4_02	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	99.20%	2	2	2	0.01%	1.92%	QLANSLSGVQNQLQSFNSYRTVEK	R	P	83.10%	3.19	0.194	0	0	1	0	2	2,791.34	332	355	TRUE	
SNU216LR_PC4_02	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	2	3	0.02%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	6.07	0.549	0	0	2	1	2	3,901.66	12	44	TRUE	
SNU216LR_PC4_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.70%	2	3	4	0.02%	15.60%	SLSTSGESLYHVLGLDK	R	N	94.20%	3.55	0.0652	0	1	0	0	2	1,885.89	8	24	TRUE	
SNU216LR_PC4_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.70%	2	3	4	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.71	0.277	0	0	2	1	2	2,858.38	8	33	TRUE	
SNU216LR_PC4_02	Pyruvate dehydrogenase E1 component alpha sul	IPI00306301	43,296.50	100.00%	1	2	4	0.02%	3.59%	YHGHSMSDPGVSYR	R	T	95.00%	2.7	0.385	0	2	2	0	2	1,672.66	289	302	TRUE	
SNU216LR_PC4_02	CDNA FLJ40432 fis, clone TESTI2039227	IPI00185371	33,453.40	100.00%	3	3	3	0.02%	9.69%	KSNHLNHVSPGQLTK	K	K	95.00%	2.87	0.233	0	0	1	0	2	1,739.86	34	48	TRUE	
SNU216LR_PC4_02	CDNA FLJ40432 fis, clone TESTI2039227	IPI00185371	33,453.40	100.00%	3	3	3	0.02%	9.69%	RKSNHLNHVSPGQLTK	K	K	95.00%	2.74	0.241	0	0	1	0	2	1,895.96	33	48	TRUE	
SNU216LR_PC4_02	CDNA FLJ40432 fis, clone TESTI2039227	IPI00185371	33,453.40	100.00%	3	3	3	0.02%	9.69%	SFSADNFIGIQR	R	S	95.00%	3.17	0.427	0	1	0	0	2	1,434.64	272	283	TRUE	
SNU216LR_PC4_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.32	0.499	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC4_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	SPSFGDPQLSPEARPR	R	C	95.00%	2.16	0.31	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216LR_PC4_02	Tumor-associated calcium signal transducer 2 pre	IPI00297910	35,709.80	100.00%	1	1	1	0.01%	3.41%	ELGELRKEPSL	K	-	95.00%	2.36	0.266	0	1	0	0	2	1,350.67	313	323	TRUE	
SNU216LR_PC4_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	4	0.02%	4.11%	GPTPPAMGPR	R	D	95.00%	2.08	0.492	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC4_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	4	0.02%	4.11%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.54	0.382	0	1	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC4_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	4	0.02%	4.11%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.66	0.411	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC4_02	Isoform 3 of Tropomyosin 1 alpha chain	IPI00216135	32,877.10	100.00%	1	1	1	0.01%	2.82%	SIDDLEEK	K	V	95.00%	1.96	0.261	1	0	0	0	2	1,028.42	252	259	TRUE	
SNU216LR_PC4_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.01%	2.14%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	3.89	0.313	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216LR_PC4_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.01%	2.14%	VPSSDEEVVEEPQSR	R	R	95.00%	3.75	0.36	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.80%	2	2	2	0.01%	2.76%	EQSEVSVSPR	K	A	95.00%	1.95	0.254	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.80%	2	2	2	0.01%	2.76%	KKEQSEVSVSPR	K	A	95.00%	2.51	0.315	0	0	1	0	2	1,453.70	23	34	TRUE	
SNU216LR_PC4_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	5	5	0.03%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.91	0.537	0	1	1	0	2	2,671.09	14	37	TRUE	
SNU216LR_PC4_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	5	5	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.16	0.568	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC4_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	5	5	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	6.05	0.594	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC4_02	CDNA FLJ34719 fis, clone MESAN2005689, weakly	IPI00171390	37,477.60	100.00%	1	1	1	0.01%	8.33%	VSALEEDMDDVESSEEEEEDEKLER	K	V	95.00%	3.2	0.223	0	0	1	0	2	3,230.20	181	206	TRUE	
SNU216LR_PC4_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	KEEPSQNDISPK	K	T	92.90%	2.23	0.194	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216LR_PC4_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	KKAEPSEVDMNSPK	K	S	95.00%	3.23	0.33	0	1	0	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC4_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	KKEEPSQNDISPK	K	T	95.00%	3.18	0.295	0	0	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC4_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	4	4	0.02%	5.36%	NEEPSEEEIDAPKPK	K	K	95.00%	3.76	0.313	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC4_02	Isoform 1 of Vang-like protein 1	IPI00031195,IPI00386349	59,977.00	99.80%	1	1	1	0.01%	3.44%	RRDSSHNELYYEEAEHER	R	R	95.00%	3.81	0.256	0	0	0	1	2	2,400.00	335	352	TRUE	
SNU216LR_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	3.61%	KLGAGEGGEASVSPEK	K	T	95.00%	3.11	0.204	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	3.61%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.66	0.199	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216LR_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	3.61%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.93	0.295	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	3.61%	TSQVGAASAPAKESPRK	K	G	95.00%	2.35	0.242	0	0	1	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	3.61%	TVANLLSGKSPR	K	K	95.00%	2.79	0.297	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	18.20%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.06	0.504	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	18.20%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.56	0.244	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216LR_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	18.20%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.24	0.209	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	18.20%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	3.76	0.492	0	1	1	0	2	1,912.96	264	282	TRUE	
SNU216LR_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	18.20%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.18	0.289	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	18.20%	QHPVPPPAQNQNQVRSPGAPGPLTLK	K	E	95.00%	2.81	0.334	0	0	1	0	2	2,808.43	339	364	TRUE	
SNU216LR_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	18.20%	SPGAPGPLTLK	R	E	92.50%	1.87	0.253	1	0	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC4_02	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	1	1	1	0.01%	4.83%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	4.24	0.428	0	1	0	0	2	2,302.01	351	371	TRUE	
SNU216LR_PC4_02	Cell division protein kinase 2	IPI00031681	33,930.70	100.00%	1	1	1	0.01%	7.72%	IGEGTYGVVYK	K	A	88.40%	1.73	0.258	0	2	0	0	2	1,265.58	10	20	FALSE	IPI00026689
SNU216LR_PC4_02	Cell division protein kinase 2	IPI00031681	33,930.70	100.00%	1	1	1	0.01%	7.72%	TYTHEVVTLWYR	R	A	95.00%	2.41	0.302	0	1	0	0	2	1,647.76	158	169	TRUE	
SNU216LR_PC4_02	PREDICTED: similar to Forkhead box protein K1 (F	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	7.37%	EGSPIPHDPEFGSK	R	L	95.00%	2.5	0.426	0	1	0	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC4_02	PREDICTED: similar to Forkhead box protein K1 (F	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	7.37%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	4.02	0.153	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216LR_PC4_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	4	4	4	0.02%	16.50%	EVDPSTGELQSLQMPESEGPSSLDPSQEGP	K	E	84.90%	5.73	0.0281	0	0	1	0	2	3,606.60	347	380	TRUE	
SNU216LR_PC4_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	4	4	4	0.02%	16.50%	HGHFGWPGWEMGPPGNWSPRPPR	K	A	95.00%	3.53	0.249	0	0	0	1	2	2,719.19	190	212	TRUE	
SNU216LR_PC4_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	4	4	4	0.02%	16.50%	LTPVSPESSSTEEK	R	S	95.00%	2.66	0.36	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216LR_PC4_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	4	4	4	0.02%	16.50%	SRLTPVSPESSSTEEK	R	S	94.70%	2.93	0.132	0	1	0	0	2	1,893.79	266	281	TRUE	
SNU216LR_PC4_02	Isoform 1 of Transcription elongation factor A pr	IPI00333215	33,970.60	100.00%	3	4	5	0.03%	4.98%	EPAITSQNSPEAR	K	E	95.00%	2.1	0.24	0	1	0	0	2	1,479.65	92	104	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	5	0.03%	4.98%	KEPAITSQNSPEAR	K	E	94.70%	3.08	0.108	0	1	0	0	2	1,607.74	91	104	TRUE	
SNU216LR_PC4_02	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	5	0.03%	4.98%	KKEPAITSQNSPEAR	K	E	95.00%	4.02	0.406	0	2	1	0	2	1,735.84	90	104	TRUE	
SNU216LR_PC4_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	98.90%	1	1	1	0.01%	1.83%	HQASDSENEEPPKPR	R	M	95.00%	2.47	0.462	0	1	0	0	2	1,880.72	193	207	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	100.00%	3	4	4	0.02%	11.80%	IHLGSSPK	R	K	87.60%	1.6	0.301	0	1	0	0	2	918.4446	37	44	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	100.00%	3	4	4	0.02%	11.80%	SLHLSPQEQSASYQDR	K	R	95.00%	3	0.317	0	1	1	0	2	1,925.84	61	76	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	100.00%	3	4	4	0.02%	11.80%	THDHQLESSLSPVEVFAK	K	T	95.00%	4.54	0.398	0	0	1	0	2	2,103.97	4	21	TRUE	
SNU216LR_PC4_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	4	0.02%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	3.32	0.18	0	1	1	0	2	1,666.81	31	44	TRUE	
SNU216LR_PC4_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	4	0.02%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.58	0.313	0	0	2	0	2	1,911.83	45	62	TRUE	
SNU216LR_PC4_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	3.59	0.331	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC4_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	SPVSTRPLPSASQK	R	A	95.00%	2.67	0.287	0	0	1	0	2	1,534.76	216	229	TRUE	
SNU216LR_PC4_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	SSPQLDPLRK	R	S	95.00%	2.02	0.287	0	0	1	0	2	1,220.60	182	191	TRUE	
SNU216LR_PC4_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	4.16	0.253	0	0	0	1	2	3,491.75	182	214	TRUE	
SNU216LR_PC4_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	99.80%	2	2	2	0.01%	1.48%	DGQDAIAQSPEK	K	E	95.00%	2.56	0.233	0	1	0	0	2	1,338.56	281	292	TRUE	
SNU216LR_PC4_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	99.80%	2	2	2	0.01%	1.48%	DGQDAIAQSPEKESK	K	D	95.00%	3.63	0.362	0	0	1	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC4_02	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	99.80%	1	1	1	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	3	0.287	0	1	0	0	2	1,842.71	375	389	TRUE	
SNU216LR_PC4_02	Hypothetical protein LOC144097	IPI00106955	41,036.50	100.00%	2	2	2	0.01%	10.50%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	4.26	0.521	0	0	1	0	2	2,916.11	144	170	TRUE	
SNU216LR_PC4_02	Hypothetical protein LOC144097	IPI00106955	41,036.50	100.00%	2	2	2	0.01%	10.50%	AESPSPAPPPGLR	R	G	92.00%	2.14	0.228	0	1	0	0	2	1,355.64	306	318	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	0.81%	RVSLEPHQGPGTPESK	K	K	95.00%	3.15	0.445	0	0	1	0	2	1,798.85	1989	2004	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	0.81%	VSLEPHQGPGTPESK	R	K	95.00%	3.35	0.398	0	1	0	0	2	1,642.75	1990	2004	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	0.81%	VSLEPHQGPGTPESKK	R	A	83.00%	2.59	0.145	0	1	0	0	2	1,770.84	1990	2005	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	4	4	0.02%	9.07%	DYDDMSPR	R	R	95.00%	1.59	0.369	0	1	0	0	2	1,078.35	279	286	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	4	4	0.02%	9.07%	GSYGDLGGPIITTQVTIPK	K	D	95.00%	3.22	0.289	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	4	4	0.02%	9.07%	IILDLISESPIKGR	K	A	95.00%	2.85	0.26	0	1	0	0	2	1,633.89	208	221	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	4	4	0.02%	9.07%	RDYDDMSPR	R	R	92.70%	1.93	0.118	1	0	0	0	2	1,234.46	278	286	TRUE	
SNU216LR_PC4_02	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	5	5	0.03%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.13	0.315	0	1	0	0	2	1,936.80	562	578	TRUE	
SNU216LR_PC4_02	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	5	5	0.03%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	3.44	0.275	0	2	2	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC4_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GLLYDSDEEDEERPAR	R	K	95.00%	2.91	0.213	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC4_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GNDPLTSSPGR	R	S	95.00%	2.31	0.449	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC4_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	4	0.02%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	4.42	0.403	0	1	0	0	2	2,186.95	50	68	TRUE	
SNU216LR_PC4_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	4	0.02%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.16	0.395	0	2	1	0	2	1,764.73	99	114	TRUE	
SNU216LR_PC4_02	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	99.70%	2	3	4	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	94.60%	3.36	0.0852	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216LR_PC4_02	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	99.70%	2	3	4	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	7.14	0.522	0	2	1	0	2	2,394.07	428	451	TRUE	
SNU216LR_PC4_02	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	5	6	0.03%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	K	95.00%	5.07	0.352	0	0	1	0	2	2,890.36	20	49	TRUE	
SNU216LR_PC4_02	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	5	6	0.03%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	A	95.00%	6.11	0.493	0	0	1	1	2	3,018.46	20	50	TRUE	
SNU216LR_PC4_02	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	5	6	0.03%	17.30%	KAPAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	3.86	0.397	0	1	2	0	2	2,622.15	50	73	TRUE	
SNU216LR_PC4_02	Gastric-associated differentially-expressed protein	IPI00386208	14,866.80	100.00%	1	1	1	0.01%	11.00%	AAAYNIVPSSTGAAK	R	A	95.00%	2.9	0.328	0	1	0	0	2	1,500.71	26	40	TRUE	
SNU216LR_PC4_02	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	2	3	0.02%	11.80%	EPVADEEEEDSDDDVEPITEFR	K	F	95.00%	3.77	0.505	0	1	0	0	2	2,645.03	92	113	TRUE	
SNU216LR_PC4_02	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	2	3	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.54	0.611	0	0	2	0	2	3,394.35	86	113	TRUE	
SNU216LR_PC4_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.6	0.341	0	1	2	0	2	1,673.69	221	235	TRUE	
SNU216LR_PC4_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.73	0.408	0	0	2	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC4_02	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.80%	2	2	2	0.01%	3.44%	ANSWQLVETPEKR	K	K	95.00%	2.42	0.224	0	1	0	0	2	1,637.77	904	916	TRUE	
SNU216LR_PC4_02	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.80%	2	2	2	0.01%	3.44%	QNSATESADSIEIYVPEAQTR	R	-	95.00%	4.85	0.547	0	1	0	0	2	2,389.06	968	988	TRUE	
SNU216LR_PC4_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.69	0.306	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC4_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	3.38	0.217	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC4_02	Nucleoporin NUP53	IPI00329650	34,774.50	100.00%	3	3	3	0.02%	12.00%	SIYDDISSPGLGSTPLTSR	R	R	89.30%	3.38	0.0577	0	1	0	0	2	2,045.94	93	111	TRUE	
SNU216LR_PC4_02	Nucleoporin NUP53	IPI00329650	34,774.50	100.00%	3	3	3	0.02%	12.00%	SPLLAGGSPPQPVVPAHK	R	D	95.00%	2.55	0.268	0	1	0	0	2	1,831.95	66	83	TRUE	
SNU216LR_PC4_02	Nucleoporin NUP53	IPI00329650	34,774.50	100.00%	3	3	3	0.02%	12.00%	SPLLAGGSPPQPVVPAHKDK	R	S	95.00%	3.71	0.365	0	0	1	0	2	2,075.07	66	85	TRUE	
SNU216LR_PC4_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	3	3	3	0.02%	3.39%	HDSPDPSPPR	R	R	95.00%	2.04	0.312	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216LR_PC4_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	3	3	3	0.02%	3.39%	HDSPDPSPPRR	R	P	95.00%	2.04	0.341	0	1	0	0	2	1,420.54	195	205	TRUE	
SNU216LR_PC4_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	3	3	3	0.02%	3.39%	HDTPDPSPLR	R	G	95.00%	1.87	0.283	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216LR_PC4_02	Isoform Liver of ATP synthase gamma chain, mitc	IPI00478410	32,998.00	100.00%	1	1	1	0.01%	7.05%	TRQAVITKELIEIISGAAALD	R	-	81.50%	2.58	0.214	0	0	1	0	2	2,292.22	278	298	TRUE	
SNU216LR_PC4_02	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	1	1	1	0.01%	3.16%	SGSMDPSGAHPSVR	R	Q	95.00%	2.5	0.244	0	1	0	0	2	1,464.59	18	31	TRUE	
SNU216LR_PC4_02	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	100.00%	1	1	1	0.01%	2.81%	TNTMNGSKSPVISRPK	R	S	95.00%	2.65	0.317	0	0	1	0	2	1,796.87	747	762	TRUE	
SNU216LR_PC4_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	4	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.01	0.499	0	1	1	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC4_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	4	0.02%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	2.51	0.292	0	1	1	0	2	2,161.82	488	504	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00033600	41,566.30	100.00%	1	1	1	0.01%	4.17%	GAGQQQQSQEMMEVDR	R	R	95.00%	3.19	0.262	0	1	0	0	2	1,773.69	6	20	TRUE	
SNU216LR_PC4_02	28 kDa protein	IPI00063387	28,278.70	99.80%	2	3	3	0.02%	7.91%	RTPAPPEPGSPAPGEGPSGR	R	K	95.00%	4.39	0.413	0	1	1	0	2	1,993.91	171	190	TRUE	
SNU216LR_PC4_02	28 kDa protein	IPI00063387	28,278.70	99.80%	2	3	3	0.02%	7.91%	TPAPPEPGSPAPGEGPSGR	R	K	95.00%	3.75	0.475	0	1	0	0	2	1,837.81	172	190	TRUE	
SNU216LR_PC4_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	RPESPSEISPIK	K	G	95.00%	2.83	0.274	0	1	0	0	2	1,419.69	262	273	TRUE	
SNU216LR_PC4_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	RPESPSEISPIKGSVR	K	T	95.00%	2.91	0.151	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216LR_PC4_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	4.46	0.245	0	1	0	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC4_02	Melanoma-associated antigen G1	IPI00217104	34,309.10	99.80%	1	1	1	0.01%	5.59%	GPGGSQGSQGPSPQGAR	R	R	95.00%	2.81	0.432	0	1	0	0	2	1,604.68	53	69	TRUE	
SNU216LR_PC4_02	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.7	0.369	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216LR_PC4_02	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEK	K	D	95.00%	2.73	0.166	0	1	0	0	2	1,508.74	197	210	TRUE	
SNU216LR_PC4_02	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEKDSVVSLESQK	K	T	95.00%	4.66	0.492	0	0	1	0	2	2,581.28	197	220	TRUE	
SNU216LR_PC4_02	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	2	3	0.02%	9.80%	AEDGSVIDYELIDQDAR	R	D	95.00%	3.27	0.378	0	1	0	0	2	1,988.85	198	214	TRUE	
SNU216LR_PC4_02	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	2	3	0.02%	9.80%	LSLEGDHSTPPSAYGSVK	K	A	95.00%	2.74	0.333	0	2	0	0	2	1,924.87	29	46	TRUE	
SNU216LR_PC4_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	6	0.03%	5.48%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.38	0.509	0	0	5	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC4_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	6	0.03%	5.48%	SHISDQSPLSSK	R	R	90.00%	2.17	0.189	0	1	0	0	2	1,365.60	344	355	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	ATVTPSPVK	K	G	95.00%	2.01	0.302	0	1	0	0	2	979.4861	176	184	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	4.11	0.501	0	1	2	2	2	2,421.94	71	90	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	EEDEEPESPPEK	K	K	90.80%	2.57	0.132	0	1	0	0	2	1,494.55	207	218	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	EEDEEPESPPEKK	K	T	95.00%	3.11	0.323	0	2	0	0	2	1,622.65	207	219	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	EKTPSPKEEDEEPESPPEK	K	K	95.00%	4.51	0.452	0	1	3	0	2	2,261.97	200	218	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	EMLMEDVGSEEEQEEEDEAPFQEK	R	D	95.00%	5.2	0.537	0	1	0	0	2	2,937.12	105	128	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	4.48	0.593	0	1	2	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	LKATVTPSPVK	R	G	93.50%	2.24	0.222	0	1	0	0	2	1,300.63	174	184	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	LKATVTPSPVKGK	R	G	95.00%	3.5	0.481	0	2	0	0	2	1,405.78	174	186	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	NSQEDSEDSEDKDVK	K	T	95.00%	3.99	0.32	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	5.77	0.459	0	3	1	0	2	2,076.82	50	67	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	TPSPKEEDEEPESPPEK	K	K	95.00%	3.35	0.326	0	1	1	0	2	2,004.83	202	218	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.74	0.388	0	1	2	0	2	2,212.89	202	219	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.37	0.544	0	3	1	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	15	23	36	0.21%	50.60%	VVDYSQFQESDDADEDYGRDSGPPTKK	K	I	95.00%	4.03	0.312	0	0	1	0	2	3,128.30	10	36	TRUE	
SNU216LR_PC4_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	3	0.02%	3.09%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.7	0.569	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC4_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	3	0.02%	3.09%	VQIPVSRPDDPEVSDNEEDSYDEEIHDPR	K	S	95.00%	3.75	0.3	0	0	2	0	2	3,523.46	112	140	TRUE	
SNU216LR_PC4_02	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	2	3	0.02%	7.59%	LGAGGGSPEKSPSAQELK	R	E	91.30%	3	0.124	0	1	0	0	2	1,792.85	13	30	TRUE	
SNU216LR_PC4_02	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	2	3	0.02%	7.59%	LGAGGGSPEKSPSAQELKEQGNR	R	L	95.00%	4.29	0.387	0	0	2	0	2	2,457.08	13	35	TRUE	
SNU216LR_PC4_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	2	3	3	0.02%	17.20%	FKVQGEAVSNIQENTQTPTVQEESEEEEVDI	K	D	95.00%	7.32	0.0764	0	0	1	0	2	4,215.90	143	179	TRUE	
SNU216LR_PC4_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	2	3	3	0.02%	17.20%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	95.00%	6.53	0.0435	0	0	1	1	2	3,940.73	145	179	TRUE	
SNU216LR_PC4_02	Stomatin-like protein 2	IPI00334190	38,534.50	100.00%	1	1	1	0.01%	4.49%	APVPGTPDSLSSGSSR	K	D	95.00%	2.96	0.492	0	1	0	0	2	1,594.71	322	337	TRUE	
SNU216LR_PC4_02	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	100.00%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	93.00%	1.97	0.299	0	1	0	0	2	1,768.67	272	284	TRUE	
SNU216LR_PC4_02	Mitogen-activated protein kinase 1	IPI00003479	41,260.70	99.80%	1	1	2	0.01%	5.29%	VADPDHDHTGFLTEYVATR	R	W	95.00%	5.22	0.523	0	0	2	0	2	2,223.97	172	190	TRUE	
SNU216LR_PC4_02	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	2	2	0.01%	8.70%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	7.42	0.461	0	0	1	0	2	3,734.69	135	167	TRUE	
SNU216LR_PC4_02	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	2	2	0.01%	8.70%	GPVSPSVSFQPLAR	R	S	95.00%	2.96	0.447	0	1	0	0	2	1,521.75	219	232	TRUE	
SNU216LR_PC4_02	Isoform 1 of WD-repeat protein 74	IPI00018192	42,441.00	99.80%	1	1	1	0.01%	3.90%	KLSGLEQPQGALQTR	R	R	95.00%	2.93	0.152	0	1	0	0	2	1,705.86	359	373	TRUE	
SNU216LR_PC4_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	KRSVQEGENPDDGVR	R	G	95.00%	5	0.369	0	0	1	0	2	1,765.79	12	26	TRUE	
SNU216LR_PC4_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	SVQEGENPDDGVR	R	G	95.00%	2.37	0.485	0	1	0	0	2	1,481.59	14	26	TRUE	
SNU216LR_PC4_02	Isoform 1 of Acyl-coenzyme A oxidase 1, peroxisc	IPI00296907,IPI00477729	74,443.40	99.80%	1	1	1	0.01%	3.33%	ERDSASFNPELLTHILDGSPEK	R	T	95.00%	4.86	0.392	0	0	1	0	2	2,535.18	8	29	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	3	3	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.54	0.472	0	1	1	0	2	2,544.30	33	57	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	3	3	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPKEVINGNI	K	T	95.00%	3.67	0.346	0	0	0	1	2	3,411.78	33	65	TRUE	
SNU216LR_PC4_02	Integrin alpha-V precursor	IPI00027505	116,055.10	99.90%	1	1	1	0.01%	2.39%	VRPPQEEQEREQLQPHENGEGNSET	R	-	95.00%	3.42	0.266	0	0	1	0	2	2,997.30	1024	1048	TRUE	
SNU216LR_PC4_02	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	1	2	2	0.01%	6.01%	GADSGEEKEEGINR	K	E	95.00%	2.79	0.412	0	1	1	0	2	1,570.64	194	207	TRUE	
SNU216LR_PC4_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.51	0.465	0	1	0	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC4_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.74	0.374	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC4_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.94	0.424	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC4_02	Isoform 2 of Protein C14orf120	IPI00000162,IPI00410360,IP	35,251.00	98.70%	1	1	1	0.01%	7.07%	LSSEDEEEDEAEDDQSEASGKK	K	S	95.00%	5.48	0.586	0	0	1	0	2	2,506.95	141	162	TRUE	
SNU216LR_PC4_02	PREDICTED: similar to basic leucine zipper and W	IPI00005681	34,091.00	100.00%	1	1	3	0.02%	4.70%	NAEEESESEAEEGD	K	-	95.00%	2.5	0.471	0	3	0	0	2	1,604.51	285	298	TRUE	
SNU216LR_PC4_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	3	3	0.02%	9.73%	KKSPNELVDDLFK	R	G	95.00%	3.72	0.357	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC4_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	3	3	0.02%	9.73%	LGSTAPQVLSTSSPAQQAENEAK	K	A	95.00%	3.98	0.347	0	1	0	0	2	2,394.12	262	284	TRUE	
SNU216LR_PC4_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.80%	2	2	2	0.01%	1.68%	AEDSDSEPEPEDNVR	K	L	95.00%	2.46	0.335	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216LR_PC4_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.80%	2	2	2	0.01%	1.68%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.92	0.328	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216LR_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	8	0.05%	3.08%	EIQNGNLHESDSESVPR	K	D	95.00%	3.53	0.298	0	3	0	0	2	1,990.85	66	82	TRUE	
SNU216LR_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	8	0.05%	3.08%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.63	0.325	0	0	2	0	2	2,247.04	64	82	TRUE	
SNU216LR_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	8	0.05%	3.08%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.16	0.467	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216LR_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	8	0.05%	3.08%	QPTPPSEAAASK	K	K	95.00%	2.42	0.424	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216LR_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	8	0.05%	3.08%	VEPVPVTKQPTPPSEAAASK	K	K	95.00%	2.71	0.327	0	0	1	0	2	2,113.06	143	162	TRUE	
SNU216LR_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	5	5	5	0.03%	24.50%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.77	0.361	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	5	5	5	0.03%	24.50%	NEGSESAPEGQAQQR	K	R	95.00%	3.04	0.335	0	1	0	0	2	1,667.67	170	184	TRUE	
SNU216LR_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	5	5	5	0.03%	24.50%	NYQQNYQNSESGEK	R	N	95.00%	2.76	0.354	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216LR_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	5	5	5	0.03%	24.50%	NYQQNYQNSESGEKNEGSESAPEGQAQQ	R	R	95.00%	2.7	0.294	0	0	0	1	2	3,337.36	156	184	TRUE	
SNU216LR_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	5	5	5	0.03%	24.50%	RPQYSNPPVQGEVMEGADNQGAGEQGRI	R	Q	95.00%	4.63	0.418	0	0	0	1	2	3,303.50	204	233	TRUE	
SNU216LR_PC4_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	98.90%	1	2	2	0.01%	3.92%	AHAWPSPYKDYEVK	R	K	95.00%	3.53	0.185	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC4_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	2	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.18	0.491	0	0	2	0	2	2,205.10	225	244	TRUE	
SNU216LR_PC4_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	IGEGTYGVVYK	K	G	88.40%	1.73	0.258	0	2	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216LR_PC4_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.68	0.394	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216LR_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	6	8	0.05%	22.00%	KAKSPK	K	K	84.90%	1.11	0.285	1	0	0	0	2	738.3911	168	173	TRUE	
SNU216LR_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	6	8	0.05%	22.00%	KAPKSPAK	K	A	95.00%	2.32	0.345	0	3	0	0	2	906.481	182	189	TRUE	
SNU216LR_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	6	8	0.05%	22.00%	KASGPPVSELITK	R	A	95.00%	3.24	0.415	0	1	1	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216LR_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	6	8	0.05%	22.00%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.54	0.546	0	1	1	0	2	2,112.07	1	21	TRUE	
SNU216LR_PC4_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	99.80%	2	2	2	0.01%	2.15%	HLDRSPESDRPR	R	K	88.80%	2.32	0.205	0	0	1	0	2	1,544.70	652	663	TRUE	
SNU216LR_PC4_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	99.80%	2	2	2	0.01%	2.15%	NSSGGGESR	K	S	95.00%	0.998	0.447	1	0	0	0	2	1,090.26	133	141	TRUE	
SNU216LR_PC4_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	1	2	2	0.01%	3.21%	DKSPVREPIDNLTPEER	K	D	95.00%	4.39	0.499	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC4_02	Fibrillarin	IPI00025039	33,784.10	100.00%	1	2	2	0.01%	4.36%	RVSISEGDDKIEYR	K	A	95.00%	3.29	0.395	0	1	1	0	2	1,746.81	122	135	TRUE	
SNU216LR_PC4_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.80%	2	2	2	0.01%	3.70%	AGLESGAEPGDGDSDTTK	K	K	95.00%	2.72	0.382	0	1	1	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC4_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.80%	2	2	2	0.01%	3.70%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.92	0.427	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC4_02	palladin	IPI00292009	122,047.90	100.00%	3	4	4	0.02%	4.61%	GRSPRSPSGHPHVR	R	R	95.00%	3.37	0.337	0	0	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC4_02	palladin	IPI00292009	122,047.90	100.00%	3	4	4	0.02%	4.61%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	4.42	0.58	0	0	1	0	2	2,474.40	632	654	TRUE	
SNU216LR_PC4_02	palladin	IPI00292009	122,047.90	100.00%	3	4	4	0.02%	4.61%	SRDSGDENEPIQER	R	F	95.00%	2.95	0.257	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216LR_PC4_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	202,867.80	99.90%	2	2	2	0.01%	2.13%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	3.84	0.0792	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216LR_PC4_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	202,867.80	99.90%	2	2	2	0.01%	2.13%	VDHGAEIITQSPGR	R	S	95.00%	3.83	0.495	0	1	0	0	2	1,559.72	1803	1816	TRUE	
SNU216LR_PC4_02	ELAV-like protein 1	IPI00301936	36,092.60	100.00%	1	1	1	0.01%	4.29%	NVALLSQLYHSPAR	K	R	95.00%	3.21	0.291	0	1	0	0	2	1,648.82	192	205	TRUE	
SNU216LR_PC4_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.80%	2	2	2	0.01%	2.49%	ATSPVKSTTSITDAK	K	S	95.00%	3.05	0.498	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC4_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.80%	2	2	2	0.01%	2.49%	NKASPQSEFMPSK	K	G	95.00%	3.02	0.309	0	1	0	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC4_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	5	5	0.03%	4.88%	SEHKVWSPLVTEEGKR	R	H	95.00%	3.74	0.315	0	1	1	0	2	1,961.95	83	98	TRUE	
SNU216LR_PC4_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	5	5	0.03%	4.88%	VWSPLVTEEGK	K	R	95.00%	2.82	0.383	0	1	0	0	2	1,324.62	87	97	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	5	5	0.03%	4.88%	VWSPLVTEEGKR	K	H	95.00%	3.11	0.29	0	1	1	0	2	1,480.72	87	98	TRUE	
SNU216LR_PC4_02	Hsc70-interacting protein	IPI00032826	41,332.40	100.00%	1	2	3	0.02%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	4.05	0.392	0	1	2	0	2	2,745.07	64	85	TRUE	
SNU216LR_PC4_02	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	98.80%	1	1	1	0.01%	2.78%	RFTPPSTALSPGK	R	M	95.00%	2.19	0.299	0	1	0	0	2	1,438.71	39	51	TRUE	
SNU216LR_PC4_02	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	5	0.03%	6.02%	GDSESEEDEDLEVPVPSR	K	F	95.00%	4.03	0.554	0	1	0	0	2	2,148.79	75	92	TRUE	
SNU216LR_PC4_02	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	5	0.03%	6.02%	VADAKGDSESEEEDEDLEVPVPSR	R	F	95.00%	3.67	0.407	0	2	2	0	2	2,553.09	70	92	TRUE	
SNU216LR_PC4_02	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	2	4	0.02%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.72	0.466	0	0	3	1	2	2,565.01	131	153	TRUE	
SNU216LR_PC4_02	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	100.00%	2	2	2	0.01%	4.30%	SPSVPKSPTPK	K	S	95.00%	2.75	0.306	0	1	0	0	2	1,204.60	8	18	TRUE	
SNU216LR_PC4_02	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	100.00%	2	2	2	0.01%	4.30%	SPTPKSPPSR	K	K	95.00%	1.99	0.31	0	1	0	0	2	1,133.54	14	23	TRUE	
SNU216LR_PC4_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	99.80%	2	2	2	0.01%	3.46%	ERSPALKSPLQSVVVR	R	R	95.00%	2.56	0.323	0	0	1	0	2	1,925.96	246	261	TRUE	
SNU216LR_PC4_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	99.80%	2	2	2	0.01%	3.46%	HGLAHDEMKSPREPGYK	K	A	93.60%	2.51	0.19	0	0	0	1	2	2,031.91	689	705	TRUE	
SNU216LR_PC4_02	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	99.90%	2	3	5	0.03%	11.00%	ANDEANQSDTSVSLSEPK	K	S	95.00%	3.14	0.361	0	1	0	0	2	1,971.82	195	212	TRUE	
SNU216LR_PC4_02	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	99.90%	2	3	5	0.03%	11.00%	EKGPTTGEGALDLSDVHSPPKSPEGK	K	T	95.00%	4.37	0.467	0	0	1	3	2	2,793.24	139	164	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.31%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.87	0.308	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.31%	HGSDPAFAPGPR	R	G	95.00%	2.59	0.463	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.31%	KGSPTPGFSTR	R	R	95.00%	2.47	0.351	0	1	0	0	2	1,214.56	879	889	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.31%	RLSLGQGDSTEAATEER	R	G	95.00%	4.04	0.428	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.31%	RLSLGQGDSTEAATEERGPR	R	A	95.00%	2.92	0.258	0	0	1	0	2	2,210.02	1001	1020	TRUE	
SNU216LR_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.31%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	3.01	0.261	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216LR_PC4_02	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	2	2	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.44	0.568	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nuclear distribution protein nudE ho	IPI00014893	37,721.50	99.80%	1	1	1	0.01%	4.78%	GLDDSTGGTPLTPAAR	R	I	95.00%	2.5	0.263	0	1	0	0	2	1,608.73	235	250	TRUE	
SNU216LR_PC4_02	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	NSLTGEEGQLAR	R	V	95.00%	2.14	0.328	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216LR_PC4_02	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	RNSLTGEEGQLAR	R	V	95.00%	3.01	0.355	0	1	0	0	2	1,510.70	110	122	TRUE	
SNU216LR_PC4_02	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	1	1	1	0.01%	4.22%	KVSKQEEASGGPTAPK	R	A	95.00%	3.39	0.361	0	1	0	0	2	1,693.82	236	251	TRUE	
SNU216LR_PC4_02	Hypothetical protein FLJ20455	IPI00016405	27,626.80	99.70%	1	2	2	0.01%	4.49%	RSSPPGHYYQK	R	S	95.00%	2.97	0.369	0	1	1	0	2	1,399.62	121	131	TRUE	
SNU216LR_PC4_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.73%	RGSDPASGEVEASQLR	R	R	95.00%	4.09	0.54	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216LR_PC4_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.73%	RGSDPASGEVEASQLRR	R	L	95.00%	2.74	0.24	0	0	1	0	2	1,894.88	105	121	TRUE	
SNU216LR_PC4_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.73%	RRGSDPASGEVEASQLR	R	R	95.00%	3.04	0.182	0	1	0	0	2	1,894.88	104	120	TRUE	
SNU216LR_PC4_02	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.80%	2	3	3	0.02%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	3.82	0.343	0	1	1	0	2	1,622.75	176	190	TRUE	
SNU216LR_PC4_02	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.80%	2	3	3	0.02%	7.25%	LEGNSPQGSNQGVK	K	I	95.00%	2.5	0.403	0	1	0	0	2	1,494.66	177	190	TRUE	
SNU216LR_PC4_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	3	3	5	0.03%	31.40%	KGDGGGAGGGGGGGGGSGGGGSGGGGGC	K	T	95.00%	6.37	0.0894	0	0	0	1	2	4,259.83	208	258	TRUE	
SNU216LR_PC4_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	3	3	5	0.03%	31.40%	LSPVPVPR	R	A	82.10%	1.4	0.302	0	1	0	0	2	944.4966	118	125	TRUE	
SNU216LR_PC4_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	3	3	5	0.03%	31.40%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	4.94	0.331	0	0	0	3	2	3,607.45	259	290	TRUE	
SNU216LR_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.90%	3	3	4	0.02%	14.10%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.38	0.509	0	0	5	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.90%	3	3	4	0.02%	14.10%	HASPILPITEFSDIPR	K	R	80.10%	2.88	0.0841	0	1	0	0	2	1,872.93	304	319	TRUE	
SNU216LR_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.90%	3	3	4	0.02%	14.10%	QNGSNDSDRYSDNEEDSK	R	I	94.70%	2.64	0.237	0	1	0	0	2	2,139.77	174	191	TRUE	
SNU216LR_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.90%	3	3	4	0.02%	14.10%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	4.63	0.326	0	0	2	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC4_02	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	3	3	0.02%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.76	0.343	0	1	1	0	2	1,872.96	270	286	TRUE	
SNU216LR_PC4_02	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	3	3	0.02%	9.80%	SASSDTSEELNSQDSPPK	R	Q	93.40%	4.24	0.001	0	1	1	0	2	1,958.79	287	304	TRUE	
SNU216LR_PC4_02	Isoform 1 of RelA-associated inhibitor	IPI00439948	89,093.10	99.80%	2	3	3	0.02%	4.71%	HGGPGPGGPEPELSPITEGSEAR	R	A	95.00%	4.66	0.501	0	1	1	0	2	2,308.02	554	576	TRUE	
SNU216LR_PC4_02	Isoform 1 of RelA-associated inhibitor	IPI00439948	89,093.10	99.80%	2	3	3	0.02%	4.71%	SESAPTLHPYSPLSPK	R	G	95.00%	3.69	0.468	0	1	0	0	2	1,790.84	100	115	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	5	5	0.03%	18.40%	GLGAGAGAGAEESPATSALPR	R	M	95.00%	3.34	0.353	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	5	5	0.03%	18.40%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.92	0.426	0	1	1	0	2	2,159.93	200	217	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	5	5	0.03%	18.40%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	3.89	0.346	0	0	1	1	2	2,654.15	200	221	TRUE	
SNU216LR_PC4_02	Isoform 1 of Hepatocyte growth factor receptor p	IPI00029273,IPI00294528	155,529.20	100.00%	1	1	2	0.01%	1.22%	SVSPTTEMVSNESVDYR	R	A	95.00%	3.78	0.459	0	2	0	0	2	1,980.83	988	1004	TRUE	
SNU216LR_PC4_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.80%	2	2	2	0.01%	2.34%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	3.55	0.455	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC4_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.80%	2	2	2	0.01%	2.34%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.35	0.288	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	AHTPTPGIYMGR	K	P	95.00%	2.06	0.376	0	1	0	0	2	1,380.61	200	211	TRUE	
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	AHTPTPGIYMGRPTHSGGGGGGGGGGGG	R	R	95.00%	5.15	0.444	0	0	1	3	2	2,871.25	200	232	TRUE	
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	RAHTPTPGIYMGR	K	P	95.00%	2.9	0.233	0	0	1	0	2	1,536.71	199	211	TRUE	
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	RAHTPTPGIYMGRPTHSGGGGGGGGGGG	K	R	95.00%	6.17	0.509	0	0	0	1	2	3,027.35	199	232	TRUE	
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	RRSPSPYYSR	R	Y	95.00%	2.26	0.353	0	0	1	0	2	1,348.62	258	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	RSPSPYYSR	R	Y	95.00%	2.23	0.297	0	2	0	0	2	1,272.48	259	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	SPSPYYSR	R	Y	91.50%	1.64	0.301	1	0	0	0	2	1,116.38	260	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	6	8	0.05%	18.10%	SYTPEYR	R	R	95.00%	1.52	0.404	0	1	0	0	2	995.387	86	92	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	EESDGEYDEFGR	R	K	95.00%	2.88	0.494	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	EESDGEYDEFGRK	R	K	95.00%	3.22	0.435	0	1	0	0	2	1,640.61	118	130	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.29	0.36	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	3.83	0.311	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	5.34	0.649	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	EVEDKESEGEEEDEDEDLSKYK	K	L	95.00%	4.09	0.306	0	0	1	0	2	2,711.06	147	168	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	SRSPESQVIGENTK	R	Q	95.00%	4	0.386	0	2	0	0	2	1,611.74	305	318	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	SRSPESQVIGENTKQP	R	-	95.00%	3.51	0.338	0	1	0	0	2	1,836.85	305	320	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	TRSRSPESQVIGENTK	R	Q	81.60%	3.26	0.0643	0	1	0	0	2	1,948.85	303	318	TRUE	
SNU216LR_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	12	0.07%	23.40%	YNLDASEEEDSNKK	K	K	95.00%	2.95	0.321	0	1	0	0	2	1,721.69	183	196	TRUE	
SNU216LR_PC4_02	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	3.28	0.432	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216LR_PC4_02	Protein C9orf42	IPI00061087	30,529.40	99.80%	2	2	2	0.01%	9.06%	HGLLLPASPVR	R	M	95.00%	2.89	0.408	0	1	0	0	2	1,239.66	69	79	TRUE	
SNU216LR_PC4_02	Protein C9orf42	IPI00061087	30,529.40	99.80%	2	2	2	0.01%	9.06%	RIDFIPVSPAPSPTR	K	G	95.00%	3.19	0.441	0	1	0	0	2	1,812.84	136	150	TRUE	
SNU216LR_PC4_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAK	R	K	95.00%	2.75	0.355	0	1	1	0	2	1,435.68	24	35	TRUE	
SNU216LR_PC4_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAKK	R	L	95.00%	2.91	0.311	0	1	1	0	2	1,563.78	24	36	TRUE	
SNU216LR_PC4_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.54	0.239	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216LR_PC4_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	4.03	0.208	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216LR_PC4_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	99.80%	2	2	2	0.01%	4.76%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.35	0.415	0	0	0	1	2	2,581.18	462	485	TRUE	
SNU216LR_PC4_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	99.80%	2	2	2	0.01%	4.76%	YWGPASPTHK	K	L	95.00%	1.73	0.3	0	1	0	0	2	1,223.52	565	574	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	plectin 1 isoform 6	IPI00186711	531,783.90	99.10%	2	2	2	0.01%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.46	0.153	0	0	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC4_02	plectin 1 isoform 6	IPI00186711	531,783.90	99.10%	2	2	2	0.01%	0.88%	SSSVGSSSSYPISPAVSR	R	T	81.80%	3.64	0.0282	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC4_02	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	4	6	0.03%	5.47%	FTDKDQQPSGSEGEDDDAEAALK	K	K	95.00%	4.44	0.569	0	1	0	0	2	2,612.99	164	186	TRUE	
SNU216LR_PC4_02	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	4	6	0.03%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.89	0.46	0	1	3	1	2	2,661.12	164	187	TRUE	
SNU216LR_PC4_02	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	1	1	3	0.02%	6.31%	VEAKEESEESDEDMGFGLFD	K	-	95.00%	2.99	0.313	0	3	0	0	2	2,342.89	298	317	TRUE	
SNU216LR_PC4_02	Matrin-3	IPI00017297	94,626.70	99.80%	1	2	2	0.01%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.15	0.383	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC4_02	N-terminal acetyltransferase complex ARD1 subur	IPI00013184	26,459.00	99.80%	1	1	1	0.01%	5.96%	HVVLGAIENKVESK	R	G	95.00%	2.71	0.351	0	1	0	0	2	1,602.83	170	183	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	8	27	0.16%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.13	0.486	0	1	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	8	27	0.16%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.41	0.607	0	0	4	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	8	27	0.16%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.85	0.391	0	0	2	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	8	27	0.16%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.99	0.621	0	0	2	15	2	3,735.89	46	80	TRUE	
SNU216LR_PC4_02	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	3	3	0.02%	9.63%	DSLSPVLHPSDLILTR	K	G	95.00%	2.84	0.374	0	1	1	0	2	1,842.94	311	326	TRUE	
SNU216LR_PC4_02	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	3	3	0.02%	9.63%	GTLDEEDEEADSDTDDIDHR	R	V	95.00%	4.68	0.531	0	1	0	0	2	2,356.86	327	346	TRUE	
SNU216LR_PC4_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	4.38	0.496	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216LR_PC4_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	4	0.555	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216LR_PC4_02	Hypothetical protein DKFZp686L2367	REVERSE_IPI00470461-R	284,630.10	99.10%	1	1	1	0.01%	0.72%	TKDRELNSPSVLVCSAPK	K	K	95.00%	3.08	0.237	0	1	0	0	2	2,081.01	1247	1264	TRUE	
SNU216LR_PC4_02	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	2	2	0.01%	13.00%	HGESAWNLENR	R	F	95.00%	2.02	0.345	0	1	0	0	2	1,392.57	10	20	TRUE	
SNU216LR_PC4_02	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	2	2	0.01%	13.00%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	4.42	0.356	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216LR_PC4_02	Isoform 1 of Negative elongation factor E	IPI00000858,IPI00154408	36,980.30	99.80%	2	2	2	0.01%	8.16%	SISADDDLQESSR	R	R	95.00%	2.85	0.484	0	1	0	0	2	1,502.60	113	125	TRUE	
SNU216LR_PC4_02	Isoform 1 of Negative elongation factor E	IPI00000858,IPI00154408	36,980.30	99.80%	2	2	2	0.01%	8.16%	SLSEQPVMDTATATEQAK	R	Q	95.00%	3.16	0.347	0	1	0	0	2	1,986.87	49	66	TRUE	
SNU216LR_PC4_02	Isoform SRP55-1 of Splicing factor, arginine/serine	IPI00012345,IPI00215879	39,588.40	100.00%	1	2	8	0.05%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.86	0.529	3	5	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC4_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	IRDWHLKQSPASPER	K	D	95.00%	3.93	0.31	0	0	1	0	2	1,899.92	136	150	TRUE	
SNU216LR_PC4_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	MIGFPSSAGSVSPR	K	S	95.00%	2.61	0.372	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216LR_PC4_02	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	1	0.01%	4.44%	VDGPRSPSYGR	K	S	95.00%	2.25	0.305	0	1	0	0	2	1,270.56	194	204	TRUE	
SNU216LR_PC4_02	MKI67 FHA domain-interacting nucleolar phosphc	IPI00154590	34,222.90	100.00%	2	3	3	0.02%	3.75%	KVSGTLDTPEK	K	T	95.00%	2.57	0.285	0	1	0	0	2	1,254.60	216	226	TRUE	
SNU216LR_PC4_02	MKI67 FHA domain-interacting nucleolar phosphc	IPI00154590	34,222.90	100.00%	2	3	3	0.02%	3.75%	VSGTLDTPEK	K	T	95.00%	2.39	0.301	1	1	0	0	2	1,126.50	217	226	TRUE	
SNU216LR_PC4_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	99.80%	2	2	2	0.01%	7.08%	RADLNQGIGEPQSPSR	R	R	95.00%	3.37	0.351	0	1	0	0	2	1,804.83	62	77	TRUE	
SNU216LR_PC4_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	99.80%	2	2	2	0.01%	7.08%	RADLNQGIGEPQSPSRR	R	V	95.00%	3.76	0.451	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216LR_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	10.20%	ETQSPEQVKSEK	K	L	95.00%	2.98	0.383	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	10.20%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.96	0.481	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	10.20%	KAEGEPQEESPLKSK	K	S	95.00%	4.37	0.465	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	10.20%	LKDLFDYSPPLHK	K	N	95.00%	2.86	0.326	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	10.20%	NTPSQHSHSIQHSPER	K	S	95.00%	2.84	0.181	0	0	1	0	2	1,921.83	256	271	TRUE	
SNU216LR_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	6	8	8	0.05%	10.20%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	2.93	0.238	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216LR_PC4_02	Protein C20orf77	IPI00009659	36,900.80	100.00%	2	2	4	0.02%	14.10%	LSMEDSKSPPPK	K	A	95.00%	3.13	0.52	0	3	0	0	2	1,395.62	127	138	TRUE	
SNU216LR_PC4_02	Protein C20orf77	IPI00009659	36,900.80	100.00%	2	2	4	0.02%	14.10%	TFQQIQEEEDDDYPGSYSPQDPSAGPLLTEE	R	A	83.40%	5.41	0.0364	0	0	1	0	2	3,919.73	149	182	TRUE	
SNU216LR_PC4_02	Septin-7	IPI00033025,IPI00552502	48,807.20	100.00%	1	1	1	0.01%	3.65%	GQLTKSPLAQMEEERR	K	E	95.00%	2.75	0.319	0	0	1	0	2	1,952.93	310	325	TRUE	
SNU216LR_PC4_02	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	HQTLEVSLSRDSPLK	K	T	95.00%	3.8	0.262	0	0	1	0	2	1,789.88	358	372	TRUE	
SNU216LR_PC4_02	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	4.65	0.432	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216LR_PC4_02	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	4	0.02%	10.80%	KYGGSVGSQPPPVAPEPGPVPSSPSQEPPTI	K	E	95.00%	6.63	0.598	0	0	1	1	2	3,291.61	178	209	TRUE	
SNU216LR_PC4_02	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	4	0.02%	10.80%	YGGSVGSQPPPVAPEPGPVPSSPSQEPPTKI	R	E	95.00%	6.7	0.486	0	0	2	0	2	3,163.51	179	209	TRUE	
SNU216LR_PC4_02	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	99.80%	1	1	2	0.01%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	3.6	0.563	0	2	0	0	2	1,644.64	194	209	TRUE	
SNU216LR_PC4_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.02%	4.16%	KAASPSPQSVR	K	R	81.50%	1.97	0.219	0	1	0	0	2	1,207.58	744	754	TRUE	
SNU216LR_PC4_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.02%	4.16%	KETESEAEDNLDDLEK	K	H	95.00%	2.98	0.422	0	1	0	0	2	2,024.76	879	894	TRUE	
SNU216LR_PC4_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.02%	4.16%	RESPSPAPKPR	K	K	95.00%	2.79	0.394	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC4_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.80%	2	2	2	0.01%	7.56%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	95.00%	5.21	0.103	0	0	1	0	2	2,903.48	310	336	TRUE	
SNU216LR_PC4_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.80%	2	2	2	0.01%	7.56%	VKEEPPSPPQSPR	R	V	95.00%	2.7	0.332	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216LR_PC4_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.80%	2	2	2	0.01%	7.00%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.56	0.207	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216LR_PC4_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.80%	2	2	2	0.01%	7.00%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.6	0.236	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216LR_PC4_02	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	90.30%	2.14	0.207	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216LR_PC4_02	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	2	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.64	0.488	0	2	0	0	2	2,323.85	116	134	TRUE	
SNU216LR_PC4_02	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	IGHHSTSDDSSAYR	R	S	95.00%	2.46	0.373	0	1	1	0	2	1,612.64	367	380	TRUE	
SNU216LR_PC4_02	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDK	R	Q	95.00%	2.31	0.388	0	1	0	0	2	1,334.53	381	390	TRUE	
SNU216LR_PC4_02	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDKQDHPISR	R	L	95.00%	4.32	0.513	0	1	1	0	2	2,167.94	381	397	TRUE	
SNU216LR_PC4_02	23 kDa protein	IPI00002821,IPI00069693,IP	23,259.00	100.00%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	95.00%	2.29	0.295	1	0	0	0	2	978.5385	133	141	TRUE	
SNU216LR_PC4_02	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	GEEGSDDDETENGPKPK	K	K	95.00%	3.59	0.375	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC4_02	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	KGSGSEQEGEDEEGGER	R	K	95.00%	2.53	0.373	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216LR_PC4_02	76 kDa protein	IPI00743778	75,757.70	100.00%	3	3	3	0.02%	9.99%	DSHSSEEDEASSQTDLSQTISKK	R	T	85.30%	5.15	0.0432	0	0	1	0	2	2,669.05	240	262	TRUE	
SNU216LR_PC4_02	76 kDa protein	IPI00743778	75,757.70	100.00%	3	3	3	0.02%	9.99%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.59	0.382	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC4_02	76 kDa protein	IPI00743778	75,757.70	100.00%	3	3	3	0.02%	9.99%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	6.63	0.509	0	0	1	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC4_02	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	1	1	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.94	0.346	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC4_02	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	100.00%	1	2	2	0.01%	7.12%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	4.34	0.471	0	1	1	0	2	2,307.02	146	166	TRUE	
SNU216LR_PC4_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	2	2	0.01%	7.25%	GDSLKEPTSIAESSR	R	H	88.40%	2.06	0.219	0	1	0	0	2	1,656.75	325	339	TRUE	
SNU216LR_PC4_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	2	2	0.01%	7.25%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.93	0.273	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216LR_PC4_02	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	99.80%	1	2	2	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	3.4	0.41	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	4.68	0.58	0	1	1	0	2	2,506.85	272	293	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.72	0.326	0	3	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	3.64	0.54	0	3	3	0	2	2,794.96	238	262	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	7.27	0.447	0	0	1	1	2	3,790.49	238	271	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	6.32	0.628	0	0	3	5	2	4,293.68	238	275	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	NDKSEEEQSSSSVK	K	K	95.00%	2.75	0.375	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	3.78	0.391	0	2	2	0	2	2,336.00	211	230	TRUE	
SNU216LR_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	27	0.16%	28.30%	SEEEQSSSSVKKDETNVK	K	M	95.00%	3.29	0.416	0	1	0	0	2	2,090.91	220	237	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	89.90%	1.56	0.293	0	1	0	0	2	1,044.38	133	139	TRUE	
SNU216LR_PC4_02	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	GSSGSPAHAESYSSGGGGQQK	R	F	89.20%	4.01	0.0001	0	1	0	0	2	2,015.81	15	35	TRUE	
SNU216LR_PC4_02	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	ISPEERRSPPAPGLQPMR	K	S	95.00%	3.4	0.296	0	0	1	0	2	2,098.03	193	210	TRUE	
SNU216LR_PC4_02	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	SPPAPGLQPMR	R	S	95.00%	2.08	0.323	0	1	0	0	2	1,230.57	200	210	TRUE	
SNU216LR_PC4_02	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	99.80%	1	1	1	0.01%	4.56%	NHSDSSTSESEVSSVSPLK	K	N	95.00%	3.01	0.202	0	0	1	0	2	2,056.87	211	229	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	32,834.70	100.00%	3	4	7	0.04%	9.01%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.05	0.481	0	3	2	0	2	2,051.83	68	85	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	32,834.70	100.00%	3	4	7	0.04%	9.01%	IFVGGLSPDTPEEK	K	I	95.00%	3.19	0.357	0	1	0	0	2	1,568.72	184	197	TRUE	
SNU216LR_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	32,834.70	100.00%	3	4	7	0.04%	9.01%	NEEDEGHSNSSPR	K	H	95.00%	3.46	0.428	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216LR_PC4_02	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,655.10	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.86	0.222	0	1	0	0	2	1,770.86	182	197	TRUE	
SNU216LR_PC4_02	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.80%	2	2	2	0.01%	14.60%	GSYNGQVGWFPSNYVTEEGDSPLGDHVG	R	L	95.00%	4.04	0.218	0	0	1	0	2	3,592.55	146	178	TRUE	
SNU216LR_PC4_02	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.80%	2	2	2	0.01%	14.60%	RKPSVPDSASPADDSFVDPGER	K	L	95.00%	4.58	0.382	0	0	1	0	2	2,409.07	82	103	TRUE	
SNU216LR_PC4_02	Isoform 1 of Inhibitor of growth protein 5	IPI00103709,IPI00513864,IP	16,272.20	98.60%	1	1	1	0.01%	5.81%	DKMEGSDFESSGGR	K	G	95.00%	2.32	0.258	0	1	0	0	2	1,581.59	109	122	TRUE	
SNU216LR_PC4_02	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	99.90%	1	1	2	0.01%	1.35%	QPTPPFFGR	R	D	95.00%	2.22	0.321	0	2	0	0	2	1,126.51	204	212	TRUE	
SNU216LR_PC4_02	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	KLVEGEEGRMDSPSATVVSAVQSR	R	C	95.00%	2.83	0.264	0	0	1	0	2	2,612.24	385	408	TRUE	
SNU216LR_PC4_02	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	MDSPSATVVSAVQSR	R	C	95.00%	2.93	0.526	0	1	0	0	2	1,614.72	394	408	TRUE	
SNU216LR_PC4_02	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	YFSQESEVSE	K	-	95.00%	2.17	0.285	1	0	0	0	2	1,284.47	443	452	TRUE	
SNU216LR_PC4_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	3	0.02%	3.35%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	89.00%	6.16	0.0346	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC4_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	3	0.02%	3.35%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	88.30%	5.97	0.0264	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216LR_PC4_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	3	3	3	0.02%	3.35%	RSSLLSLMTGKK	R	D	95.00%	2.68	0.214	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC4_02	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.60%	2	2	2	0.01%	3.56%	ALPNNTSSSPQPK	R	K	91.70%	2.23	0.194	0	1	0	0	2	1,420.65	307	319	TRUE	
SNU216LR_PC4_02	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.60%	2	2	2	0.01%	3.56%	RALPNNTSSSPQPK	K	K	95.00%	2.52	0.34	0	1	0	0	2	1,576.75	306	319	TRUE	
SNU216LR_PC4_02	Methylosome protein 50	IPI00012202	36,723.20	100.00%	2	3	3	0.02%	4.39%	KETPPPLVPPAAR	R	E	95.00%	2.54	0.43	0	1	1	0	2	1,452.76	3	15	TRUE	
SNU216LR_PC4_02	Methylosome protein 50	IPI00012202	36,723.20	100.00%	2	3	3	0.02%	4.39%	MRKETPPPLVPPAAR	-	E	95.00%	2.88	0.254	0	0	1	0	2	1,739.90	1	15	TRUE	
SNU216LR_PC4_02	Actin, cytoplasmic 1	IPI00021439,IPI00021440	41,793.90	100.00%	1	1	1	0.01%	4.27%	SYELPDGQVITIGNER	K	F	95.00%	2.8	0.344	0	1	0	0	2	1,870.86	239	254	TRUE	
SNU216LR_PC4_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	2	2	0.01%	12.20%	GPSWDPFRDWYPHSR	R	L	95.00%	2.86	0.346	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC4_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	2	2	0.01%	12.20%	QLSSGVSEIR	R	H	95.00%	2.3	0.361	0	1	0	0	2	1,155.54	80	89	TRUE	
SNU216LR_PC4_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	2	2	0.01%	2.15%	SHSPSASQSGSQLR	R	N	95.00%	2.4	0.393	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC4_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	2	2	0.01%	2.15%	TSTTGVATTQSPTPR	K	S	95.00%	2.91	0.457	0	1	0	0	2	1,584.73	1242	1256	TRUE	
SNU216LR_PC4_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	3	3	3	0.02%	4.43%	DKSDSDTEGLLFSR	R	D	95.00%	2.67	0.206	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216LR_PC4_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	3	3	3	0.02%	4.43%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.03	0.278	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC4_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	3	3	3	0.02%	4.43%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.44	0.32	0	0	1	0	2	2,460.13	639	659	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	4	4	0.02%	12.90%	APSPPVEHPR	R	L	95.00%	2.12	0.328	0	1	0	0	2	1,166.54	177	186	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	4	4	0.02%	12.90%	AQVLATIHGHAGAFPAAGDAGEGAPGGGS	R	V	95.00%	6.59	0.57	0	0	1	0	2	3,093.42	283	315	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	4	4	0.02%	12.90%	RAQVLATIHGHAGAFPAAGDAGEGAPGGG	R	V	95.00%	4.69	0.351	0	0	0	1	2	3,249.52	282	315	TRUE	
SNU216LR_PC4_02	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	100.00%	4	4	4	0.02%	12.90%	SRSFTLDDESLK	R	Y	95.00%	2.77	0.192	0	1	0	0	2	1,477.66	41	52	TRUE	
SNU216LR_PC4_02	Eukaryotic translation initiation factor 3 subunit 6	IPI00013068	52,222.60	100.00%	1	1	1	0.01%	4.49%	LGHVVMGNNAVSPYQQVIEK	K	T	95.00%	4.65	0.57	0	1	0	0	2	2,263.09	388	407	TRUE	
SNU216LR_PC4_02	Nuclear receptor-interacting protein 1	REVERSE_IPI00010196-R	126,944.60	99.50%	2	2	2	0.01%	2.42%	ATVQSVSEASSAERWIDK	K	D	95.00%	3.45	0.247	0	0	1	0	2	2,123.90	55	72	TRUE	
SNU216LR_PC4_02	Nuclear receptor-interacting protein 1	REVERSE_IPI00010196-R	126,944.60	99.50%	2	2	2	0.01%	2.42%	ELSNKYGANK	R	P	90.00%	2.23	0.182	0	1	0	0	2	1,283.51	792	801	TRUE	
SNU216LR_PC4_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	3	3	0.02%	0.74%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.49	0.484	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC4_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	3	3	0.02%	0.74%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	4.75	0.363	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216LR_PC4_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	5	5	0.03%	16.10%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	93.40%	6.94	0.0121	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC4_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	5	5	0.03%	16.10%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.06	0.501	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC4_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	5	5	0.03%	16.10%	QASTDAGTAGALTPQHVR	R	A	95.00%	4.25	0.479	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC4_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	4.85%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	3.57	0.293	0	0	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC4_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	4.85%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	2.94	0.376	0	1	1	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC4_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.3	0.313	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC4_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.54	0.349	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216LR_PC4_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.14	0.438	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	7	7	0.04%	14.90%	ETPHSPGVEDAPIAK	R	V	95.00%	3.31	0.352	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	7	7	0.04%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.48	0.512	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216LR_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	7	7	0.04%	14.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.6	0.517	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	7	7	0.04%	14.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.9	0.46	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	7	7	0.04%	14.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	5.15	0.0877	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	5	5	6	0.03%	25.40%	AATAARPPAPPPAPQPPSPTPSPPRPTLAR	R	E	92.70%	4.68	0.0855	0	0	1	0	2	3,124.55	91	120	TRUE	
SNU216LR_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	5	5	6	0.03%	25.40%	LNTSDFQK	R	L	95.00%	1.89	0.258	0	1	0	0	2	1,032.44	264	271	TRUE	
SNU216LR_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	5	5	6	0.03%	25.40%	SLPVSVPVWGFK	K	E	95.00%	2.54	0.443	0	1	0	0	2	1,395.71	203	214	TRUE	
SNU216LR_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	5	5	6	0.03%	25.40%	SSDEENGPPSSPDLDR	R	I	95.00%	2.68	0.311	0	2	0	0	2	1,861.65	222	237	TRUE	
SNU216LR_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	5	5	6	0.03%	25.40%	TEARSSDEENGPPSSPDLDR	R	I	88.40%	3.93	0.0039	0	1	0	0	2	2,318.88	218	237	TRUE	
SNU216LR_PC4_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.55	0.436	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC4_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	4.91	0.529	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	5	6	6	0.03%	12.50%	EESEEEEDEDDEEEEEEEK	R	E	95.00%	5.25	0.782	0	1	0	0	2	2,465.79	30	48	TRUE	
SNU216LR_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	5	6	6	0.03%	12.50%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	6.14	0.667	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216LR_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	5	6	6	0.03%	12.50%	EESEEEEDEDDEEEEEEEKEKSLIVEGK	R	R	95.00%	3.13	0.204	0	0	1	0	2	3,529.32	30	57	TRUE	
SNU216LR_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	5	6	6	0.03%	12.50%	EKSLIVEGK	K	R	94.40%	1.7	0.281	0	1	0	0	2	1,082.55	49	57	TRUE	
SNU216LR_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	5	6	6	0.03%	12.50%	NKEESSDDEDKESEEEPPK	K	K	95.00%	2.65	0.46	0	1	0	0	2	2,460.83	239	257	TRUE	
SNU216LR_PC4_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	GKHSLDSDEEEDDDDGGSSK	K	Y	95.00%	2.99	0.221	0	0	1	0	2	2,201.80	43	62	TRUE	
SNU216LR_PC4_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	GPGQPSSPQRLDR	K	L	95.00%	2.31	0.225	0	1	0	0	2	1,474.68	189	201	TRUE	
SNU216LR_PC4_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	HSLDSDEEEDDDDGGSSK	K	Y	95.00%	4.72	0.509	0	1	0	0	2	2,016.68	45	62	TRUE	
SNU216LR_PC4_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	4	5	5	0.03%	9.97%	KGPGQPSSPQRLDR	R	L	95.00%	3.07	0.211	0	1	1	0	2	1,602.78	188	201	TRUE	
SNU216LR_PC4_02	Isoform 1 of Pinin	IPI00418458	81,613.20	99.80%	2	2	2	0.01%	5.58%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	3.76	0.288	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216LR_PC4_02	Isoform 1 of Pinin	IPI00418458	81,613.20	99.80%	2	2	2	0.01%	5.58%	SLSPGKENVSALDMEK	K	E	95.00%	3.49	0.308	0	1	0	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC4_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.02%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.91	0.415	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216LR_PC4_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.02%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE	K	G	94.50%	7.4	0.0038	0	0	1	1	2	3,462.56	246	276	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.02%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	3.16	0.388	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216LR_PC4_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	5	8	0.05%	16.80%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	4.77	0.49	0	2	2	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC4_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	5	8	0.05%	16.80%	QRSLGPSLATDKS	R	-	95.00%	2.31	0.314	0	1	0	0	2	1,439.69	268	280	TRUE	
SNU216LR_PC4_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	5	8	0.05%	16.80%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.72	0.56	0	2	0	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC4_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	5	8	0.05%	16.80%	VEEEQEADEEDVSEEEAESKEGTNKDFPQN.	K	Q	95.00%	3.86	0.17	0	0	0	1	2	3,860.61	235	267	TRUE	
SNU216LR_PC4_02	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	EVYELLDSPGK	K	V	95.00%	2.28	0.361	0	1	0	0	2	1,329.60	46	56	TRUE	
SNU216LR_PC4_02	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	TKEVYELLDSPGK	K	V	95.00%	3.5	0.465	0	1	0	0	2	1,558.74	44	56	TRUE	
SNU216LR_PC4_02	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	TKEVYELLDSPGKVLLQSK	K	D	95.00%	3.84	0.372	0	0	1	0	2	2,227.16	44	62	TRUE	
SNU216LR_PC4_02	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	3.89%	AGGLDWPEATEVSPSR	R	T	95.00%	3.24	0.434	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC4_02	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	3.89%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.45	0.384	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216LR_PC4_02	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	5	0.03%	6.85%	KTAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	4.12	0.479	0	0	1	0	2	2,905.25	133	157	TRUE	
SNU216LR_PC4_02	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	5	0.03%	6.85%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	6.92	0.556	0	1	2	1	2	2,777.16	134	157	TRUE	
SNU216LR_PC4_02	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	NVSAGTQDVPSPPSDYVER	K	V	95.00%	3.69	0.359	0	1	0	0	2	2,097.91	246	264	TRUE	
SNU216LR_PC4_02	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	STPVPEVVQELPLTSPVDDFRQPR	K	Y	95.00%	3.67	0.435	0	0	1	0	2	2,786.38	290	313	TRUE	
SNU216LR_PC4_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.40%	1	1	1	0.01%	0.81%	HLEAADKGHSPAQKPK	K	T	88.30%	2.71	0.199	0	0	0	1	2	1,793.87	596	611	TRUE	
SNU216LR_PC4_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	98.90%	1	1	1	0.01%	0.91%	APSPSSRMGQAPSQSLLPPAQDQPR	R	S	95.00%	3.12	0.196	0	0	0	1	2	2,763.23	2424	2448	TRUE	
SNU216LR_PC4_02	UV excision repair protein RAD23 homolog B	IPI00008223	43,171.10	99.80%	1	1	1	0.01%	7.09%	QEKPAEKPAETPVATSPTATDSTSGDSSR	K	S	80.50%	5.36	0.0332	0	0	1	0	2	3,025.36	145	173	TRUE	
SNU216LR_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	9	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	4.32	0.347	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216LR_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	9	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	3.88	0.141	0	0	2	0	2	3,198.26	334	362	TRUE	
SNU216LR_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	9	0.05%	15.10%	DLHQGIEAASDEEDLR	R	W	95.00%	3.35	0.381	0	1	1	0	2	1,877.79	267	282	TRUE	
SNU216LR_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	9	0.05%	15.10%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	4.09	0.3	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216LR_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	9	0.05%	15.10%	GGRSPDEVTLTSIVPTR	K	D	95.00%	3.83	0.443	0	1	1	0	2	1,864.92	317	333	TRUE	
SNU216LR_PC4_02	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	DDGSSMSFYVRPSPAK	R	R	95.00%	2.68	0.373	0	1	0	0	2	1,823.77	24	39	TRUE	
SNU216LR_PC4_02	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	YLLGDAPVSPSSQK	K	L	95.00%	2.83	0.306	0	1	0	0	2	1,541.72	195	208	TRUE	
SNU216LR_PC4_02	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	DSLGDFIEHYAQLGPSSPEQLAAGAEEGGG	R	R	95.00%	5.15	0.455	0	0	1	1	2	3,335.49	84	115	TRUE	
SNU216LR_PC4_02	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	RGGGSGGGEESEGEEVDED	R	-	95.00%	3.34	0.531	0	1	0	0	2	1,931.68	293	311	TRUE	
SNU216LR_PC4_02	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	3	4	7	0.04%	22.70%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	4.78	0.624	0	2	2	0	2	2,575.01	239	266	TRUE	
SNU216LR_PC4_02	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	3	4	7	0.04%	22.70%	GFGFVTFSSMAEVDAAMAARPHSIDGR	R	V	90.80%	2.86	0.188	0	0	1	0	2	2,907.30	63	89	TRUE	
SNU216LR_PC4_02	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	3	4	7	0.04%	22.70%	NMGGPYGGGNYGPGGSGGSGGYGGR	R	S	95.00%	4.83	0.107	0	2	0	0	2	2,285.87	326	350	TRUE	
SNU216LR_PC4_02	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.50%	2	3	3	0.02%	6.46%	GTGQSDDSDIWDDTALIK	R	A	89.70%	3.04	0.0939	0	1	0	0	2	2,096.81	24	41	TRUE	
SNU216LR_PC4_02	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.50%	2	3	3	0.02%	6.46%	RGTGQSDDSDIWDDTALIK	R	A	95.00%	4.28	0.495	0	1	1	0	2	2,172.95	23	41	TRUE	
SNU216LR_PC4_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	AGLGSPERPPK	R	T	95.00%	1.93	0.264	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC4_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	LGGLRPESPESLTSVSR	R	T	95.00%	3.48	0.2	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC4_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	LQQGAGLESPQSQPEPGAASPQR	R	Q	95.00%	3.64	0.35	0	0	1	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC4_02	Emerin	IPI00032003	28,994.90	100.00%	1	1	1	0.01%	8.66%	RLSPPSSSAASSYSFSDLNSTR	R	G	95.00%	5.81	0.0951	0	1	0	0	2	2,397.07	47	68	TRUE	
SNU216LR_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	5	6	0.03%	25.70%	AEDGATPSPSNETPK	K	K	95.00%	2.8	0.22	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	5	6	0.03%	25.70%	AEDGATPSPSNETPKK	K	K	95.00%	2.93	0.389	0	2	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	5	6	0.03%	25.70%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	3.98	0.307	0	0	1	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	5	6	0.03%	25.70%	GEAAAERPGEAAVASSPSK	K	A	95.00%	2.84	0.308	0	1	0	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	5	6	0.03%	25.70%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.34	0.454	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC4_02	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	2	2	2	0.01%	14.70%	ELEAIFGRPVVDGEEGEPHSISPR	K	P	95.00%	4.98	0.428	0	0	1	0	2	2,700.27	274	297	TRUE	
SNU216LR_PC4_02	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	2	2	2	0.01%	14.70%	RKPVLPALTINPTIAEGPSPTSEGASEANLVD	R	K	95.00%	9.07	0.0181	0	0	1	0	2	3,693.91	5	39	TRUE	
SNU216LR_PC4_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	DYDEEEQGYDSEKEK	R	K	95.00%	2.88	0.249	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC4_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	SKTPPKSYSTAR	R	R	95.00%	2.32	0.359	0	0	1	1	2	1,402.67	263	274	TRUE	
SNU216LR_PC4_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	16	0.09%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.67	0.581	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216LR_PC4_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	16	0.09%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDD	K	R	95.00%	3.89	0.301	0	0	1	1	2	4,104.59	78	115	TRUE	
SNU216LR_PC4_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	16	0.09%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDD	K	L	95.00%	5.81	0.26	0	0	5	7	2	4,260.69	78	116	TRUE	
SNU216LR_PC4_02	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIK	K	R	95.00%	3.57	0.446	0	1	0	0	2	1,600.80	241	255	TRUE	
SNU216LR_PC4_02	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIKR	K	G	95.00%	3.31	0.544	0	1	1	0	2	1,756.90	241	256	TRUE	
SNU216LR_PC4_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.95	0.325	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC4_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	5.59	0.513	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	3	0.416	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.67	0.601	0	1	1	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	94.10%	2.65	0.193	0	0	1	0	2	2,504.04	172	192	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	3.68	0.499	0	1	0	0	2	2,115.85	47	66	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	4.44	0.435	0	0	1	0	2	2,484.10	44	66	TRUE	
SNU216LR_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.6	0.481	0	0	1	1	2	2,730.20	169	191	TRUE	
SNU216LR_PC4_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	100.00%	3	4	7	0.04%	13.10%	GEDVPSEEEEEENGFEDR	R	K	95.00%	5.25	0.651	0	3	0	0	2	2,304.83	179	197	TRUE	
SNU216LR_PC4_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	100.00%	3	4	7	0.04%	13.10%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.74	0.475	0	2	1	0	2	1,999.83	198	215	TRUE	
SNU216LR_PC4_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	100.00%	3	4	7	0.04%	13.10%	NPLPNIDHELQELLIDRGEDVPSEEEEEENG	R	K	95.00%	3.48	0.202	0	0	0	1	2	4,314.88	162	197	TRUE	
SNU216LR_PC4_02	Calumenin precursor	IPI00014537	38,052.00	100.00%	2	2	2	0.01%	10.50%	DRVHHEPQLSDKVHNDAQSFDYDHDAFL	K	T	95.00%	4.55	0.351	0	0	0	1	2	4,000.75	34	67	TRUE	
SNU216LR_PC4_02	Calumenin precursor	IPI00014537	38,052.00	100.00%	2	2	2	0.01%	10.50%	VHHEPQLSDKVHNDAQSFDYDHDAFLGAI	R	T	95.00%	4.61	0.423	0	0	0	1	2	3,729.62	36	67	TRUE	
SNU216LR_PC4_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	2	2	0.01%	4.65%	QSVDKVTSPTKV	K	-	87.90%	2.7	0.169	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC4_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	2	2	0.01%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.12	0.218	0	1	0	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC4_02	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEK	R	E	95.00%	3.61	0.552	0	1	0	0	2	1,768.69	115	129	TRUE	
SNU216LR_PC4_02	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEKEVEALKK	R	S	95.00%	4.88	0.506	0	0	1	1	2	2,566.16	115	136	TRUE	
SNU216LR_PC4_02	Adhesion-regulating molecule 1 precursor	IPI00033030,IPI00470921	42,154.30	100.00%	1	1	1	0.01%	3.93%	SQSAAVTPSSTTSSTR	R	A	95.00%	2.98	0.138	0	1	0	0	2	1,647.72	211	226	TRUE	
SNU216LR_PC4_02	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	4	6	0.03%	9.05%	KSPSGPVKSPPLSPVGTTPVK	R	L	95.00%	4.43	0.148	0	1	1	0	2	2,140.14	181	201	TRUE	
SNU216LR_PC4_02	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	4	6	0.03%	9.05%	SPSGPVKSPPLSPVGTTPVK	K	L	95.00%	4.07	0.419	0	2	2	0	2	2,012.05	182	201	TRUE	
SNU216LR_PC4_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.39	0.316	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216LR_PC4_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.21	0.419	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216LR_PC4_02	Tissue factor precursor	IPI00010338	33,067.30	100.00%	3	3	3	0.02%	5.76%	AGVGQSWKENSPLNVS	K	-	95.00%	3.17	0.248	0	1	0	0	2	1,752.80	280	295	TRUE	
SNU216LR_PC4_02	Tissue factor precursor	IPI00010338	33,067.30	100.00%	3	3	3	0.02%	5.76%	ENSPLNVS	K	-	95.00%	2.28	0.267	1	0	0	0	2	939.3819	288	295	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Tissue factor precursor	IPI00010338	33,067.30	100.00%	3	3	3	0.02%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	3.31	0.428	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216LR_PC4_02	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	3	3	0.02%	8.98%	DLGSTEDGDGTDDFLTDKEDEK	K	A	95.00%	4.84	0.541	0	1	1	0	2	2,481.97	180	201	TRUE	
SNU216LR_PC4_02	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	3	3	0.02%	8.98%	KDLGSTEDGDGTDDFLTDKEDEK	R	A	95.00%	5.79	0.493	0	0	1	0	2	2,610.06	179	201	TRUE	
SNU216LR_PC4_02	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.90%	2	2	2	0.01%	3.18%	SPPTQVAISSDSAR	R	K	95.00%	2.42	0.337	0	1	0	0	2	1,495.68	201	214	TRUE	
SNU216LR_PC4_02	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.90%	2	2	2	0.01%	3.18%	VTRSPPTQVAISSDSAR	R	K	95.00%	3.65	0.286	0	0	1	0	2	1,851.90	198	214	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	6	6	0.03%	24.00%	GGMGSGGLATGIAGGLAGMGGIQNEKETM	R	L	95.00%	5.75	0.409	0	0	1	0	2	3,415.54	56	90	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	6	6	0.03%	24.00%	LLEDGEDFNLGDALDSSNSMQTIQK	R	T	95.00%	4.39	0.395	0	0	1	0	2	2,820.23	390	414	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	6	6	0.03%	24.00%	PVSSAASVYAGAGGSGSR	R	I	95.00%	3.23	0.459	0	1	0	0	2	1,660.73	28	45	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	6	6	0.03%	24.00%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	8.39	0.0007	0	0	1	0	2	3,993.83	51	90	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	6	6	0.03%	24.00%	TVQSLEIDLDSMR	R	N	95.00%	2.62	0.206	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	6	6	6	0.03%	24.00%	VRSLETENR	R	R	95.00%	2.34	0.201	0	1	0	0	2	1,183.55	98	106	TRUE	
SNU216LR_PC4_02	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	52,489.20	100.00%	1	1	1	0.01%	2.78%	ASVRGSSEEDEDAR	R	T	92.90%	2.35	0.188	0	1	0	0	2	1,667.59	133	146	TRUE	
SNU216LR_PC4_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.57	0.334	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC4_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.6	0.44	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC4_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.03%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.4	0.463	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC4_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.03%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	4.51	0.483	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC4_02	Density-regulated protein	IPI00306280	22,285.70	99.80%	2	2	2	0.01%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	5.25	0.494	0	0	1	0	2	2,797.24	69	94	TRUE	
SNU216LR_PC4_02	Density-regulated protein	IPI00306280	22,285.70	99.80%	2	2	2	0.01%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEKK	K	K	95.00%	4.56	0.454	0	0	1	0	2	2,925.34	69	95	TRUE	
SNU216LR_PC4_02	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	100.00%	3	3	3	0.02%	3.73%	HPSSPSALR	R	S	95.00%	1.61	0.355	0	1	0	0	2	1,031.47	542	550	TRUE	
SNU216LR_PC4_02	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	100.00%	3	3	3	0.02%	3.73%	SPADPTDLGGQTSPR	R	R	95.00%	2.78	0.315	0	1	0	0	2	1,578.68	551	565	TRUE	
SNU216LR_PC4_02	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	100.00%	3	3	3	0.02%	3.73%	SPADPTDLGGQTSPRR	R	T	95.00%	3.59	0.43	0	1	0	0	2	1,734.78	551	566	TRUE	
SNU216LR_PC4_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	3	3	0.02%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.35	0.329	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC4_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	3	3	0.02%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	3.76	0.356	0	0	1	1	2	2,595.29	178	201	TRUE	
SNU216LR_PC4_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	99.80%	2	2	2	0.01%	1.39%	GLPSPYNMSSAPGSR	K	S	95.00%	2.65	0.242	0	1	0	0	2	1,600.68	2812	2826	TRUE	
SNU216LR_PC4_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	99.80%	2	2	2	0.01%	1.39%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.44	0.0157	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216LR_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	22	0.13%	22.90%	ATAPQTQHVSPMR	R	Q	95.00%	2.85	0.377	1	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	22	0.13%	22.90%	ATAPQTQHVSPMRQVEPPAK	R	K	95.00%	2.8	0.276	0	1	0	0	2	2,269.08	123	142	TRUE	
SNU216LR_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	22	0.13%	22.90%	KPATPAEDDEDDDIDLFGSDNEEEDK	K	E	95.00%	5.58	0.514	0	0	1	0	2	2,989.16	143	168	TRUE	
SNU216LR_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	22	0.13%	22.90%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.13	0.572	0	0	11	5	2	3,657.52	143	174	TRUE	
SNU216LR_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	22	0.13%	22.90%	LNVLEKSSPGHR	R	A	95.00%	3.03	0.23	0	0	1	0	2	1,416.70	111	122	TRUE	
SNU216LR_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	22	0.13%	22.90%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	E	95.00%	6.48	0.375	0	0	1	0	2	3,529.43	144	174	TRUE	
SNU216LR_PC4_02	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.80%	2	2	2	0.01%	5.26%	ASSASVPAVGASAEGTRR	R	D	95.00%	2.26	0.24	0	0	1	0	2	1,753.82	167	184	TRUE	
SNU216LR_PC4_02	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.80%	2	2	2	0.01%	5.26%	LGSYSGPTSVSR	R	Q	95.00%	2.14	0.315	0	1	0	0	2	1,290.57	187	198	TRUE	
SNU216LR_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	15	0.09%	15.40%	AGDLLEDSPK	R	R	95.00%	2.57	0.187	2	0	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	15	0.09%	15.40%	AGDLLEDSPKRPK	R	E	95.00%	2.91	0.237	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	15	0.09%	15.40%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.08	0.427	0	2	2	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	15	0.09%	15.40%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.95	0.495	0	0	3	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	15	0.09%	15.40%	KGNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.11	0.41	0	1	2	0	2	2,332.99	126	146	TRUE	
SNU216LR_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	15	0.09%	15.40%	RAGDLLEDSPK	R	R	95.00%	2.63	0.371	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216LR_PC4_02	Isoform DFF45 of DNA fragmentation factor alpha	IPI00010882	36,522.50	98.60%	1	1	1	0.01%	5.14%	SISASKASPPGDLQNPK	R	R	95.00%	3.93	0.429	0	1	0	0	2	1,776.85	308	324	TRUE	
SNU216LR_PC4_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	99.80%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.88	0.461	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC4_02	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	1	1	1	0.01%	3.50%	GKLEAIITPPPAK	K	K	95.00%	2.43	0.332	0	1	0	0	2	1,414.77	122	134	TRUE	
SNU216LR_PC4_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.20%	2	2	2	0.01%	2.72%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.1	0.0661	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC4_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.20%	2	2	2	0.01%	2.72%	QVLQSTQSPR	R	T	84.80%	2.36	0.204	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	4	0.02%	15.00%	AALEDTLAETEAR	K	F	95.00%	2.5	0.366	0	1	0	0	2	1,469.65	318	330	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	4	0.02%	15.00%	FVSSSSSGGYGGGYGGVLTASDGLLAGNEK	R	L	95.00%	5.22	0.0123	0	1	1	0	2	2,874.28	52	81	TRUE	
SNU216LR_PC4_02	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	4	0.02%	15.00%	SLLEGQEDHYNNLSASK	R	V	95.00%	2.75	0.227	0	1	0	0	2	1,984.86	382	398	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.59	0.467	0	2	1	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	4.11	0.403	0	1	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	FKAEAPLPSPK	K	L	95.00%	2.75	0.352	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	GGVTGSPEASISGSK	K	G	95.00%	2.8	0.404	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.18	0.384	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	GHYEVTGSDDETGK	K	L	95.00%	2.62	0.517	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.72	0.0941	0	1	0	0	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	95.00%	3.51	0.242	0	0	1	0	2	2,730.26	2905	2930	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	GKGGVTGSPEASISGSK	K	G	95.00%	3.69	0.169	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.42	0.486	0	1	1	0	2	2,011.97	2795	2815	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	SKGHYEVTGSDDETGK	K	L	95.00%	3.28	0.454	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	18	0.11%	2.70%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.46	0.334	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC4_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.60%	2	2	2	0.01%	4.37%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.51	0.277	0	0	1	0	2	2,073.00	603	620	TRUE	
SNU216LR_PC4_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.60%	2	2	2	0.01%	4.37%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	91.80%	3.51	0.138	0	0	1	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC4_02	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	99.50%	2	2	2	0.01%	5.26%	NMAPSQQSPVR	R	T	95.00%	2.1	0.246	0	1	0	0	2	1,294.56	220	230	TRUE	
SNU216LR_PC4_02	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	99.50%	2	2	2	0.01%	5.26%	TTPPTQKPPSPPMSGK	R	G	89.10%	1.92	0.274	0	1	0	0	2	1,730.82	174	189	TRUE	
SNU216LR_PC4_02	Isoform SRP40-1 of Splicing factor, arginine/serine	IPI00012341,IPI00555857	31,264.80	100.00%	1	1	1	0.01%	4.41%	SRSVSRSPVPEK	K	S	95.00%	2.33	0.236	0	1	0	0	2	1,568.63	227	238	TRUE	
SNU216LR_PC4_02	Isoform 3 of Anamorsin	IPI00025333,IPI00387130	33,583.00	99.50%	2	3	3	0.02%	12.40%	EQMSSQPKSACGNCYLGDAFR	R	C	89.40%	2.22	0.277	0	0	1	0	2	2,661.92	264	284	TRUE	
SNU216LR_PC4_02	Isoform 3 of Anamorsin	IPI00025333,IPI00387130	33,583.00	99.50%	2	3	3	0.02%	12.40%	KSSPSVKPAVDPAAAK	K	L	95.00%	2.95	0.348	0	1	1	0	2	1,632.84	181	196	TRUE	
SNU216LR_PC4_02	Hypothetical protein FLJ20291	IPI00015618	49,649.00	98.60%	1	1	1	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	3.4	0.28	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216LR_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	20	0.12%	10.00%	FASDDEHDEHDENGATGPVK	K	R	95.00%	4.07	0.445	0	1	2	0	2	2,249.86	364	383	TRUE	
SNU216LR_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	20	0.12%	10.00%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	5.28	0.475	0	2	3	2	2	2,405.96	364	384	TRUE	
SNU216LR_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	20	0.12%	10.00%	SPSKPLPEVTDEYKNDVK	R	N	95.00%	4.4	0.382	0	0	1	0	2	2,126.01	92	109	TRUE	
SNU216LR_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	20	0.12%	10.00%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	4.31	0.484	0	1	2	1	2	2,479.00	362	383	TRUE	
SNU216LR_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	20	0.12%	10.00%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	5.46	0.515	0	1	2	2	2	2,635.11	362	384	TRUE	
SNU216LR_PC4_02	Cell cycle checkpoint control protein RAD9A	IPI00005277	42,548.10	99.80%	2	2	2	0.01%	11.50%	DSLLDGHFVLATLSDTDSHSQDLGSPER	K	H	95.00%	4.39	0.401	0	0	1	0	2	3,092.38	253	280	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_02	Cell cycle checkpoint control protein RAD9A	IPI00005277	42,548.10	99.80%	2	2	2	0.01%	11.50%	SPQGPSPVLAEDSEGEG	R	-	95.00%	2.49	0.277	0	1	0	0	2	1,735.71	375	391	TRUE	
SNU216LR_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	6.55%	AYSPEYR	R	R	92.20%	1.57	0.299	0	1	0	0	2	965.3764	264	270	TRUE	
SNU216LR_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	6.55%	DNSPPPAFKPEPPK	R	A	95.00%	2.27	0.287	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	6.55%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.38	0.545	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	6.55%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	3.57	0.296	0	0	1	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	6.55%	SRSWEDSPER	R	G	95.00%	2.83	0.306	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC4_02	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	10	0.06%	12.40%	AVKKTPK	K	K	86.80%	1.62	0.248	0	1	0	0	2	851.4752	150	156	TRUE	
SNU216LR_PC4_02	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	10	0.06%	12.40%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.52	0.441	0	4	2	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC4_02	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	10	0.06%	12.40%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.66	0.513	0	1	1	1	2	2,190.07	1	21	TRUE	
SNU216LR_PC4_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	8	0.05%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	3.52	0.473	0	1	0	0	2	2,075.77	12	28	TRUE	
SNU216LR_PC4_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	8	0.05%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	4.17	0.394	0	2	2	0	2	2,231.87	11	28	TRUE	
SNU216LR_PC4_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	8	0.05%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	3.77	0.447	0	1	2	0	2	1,887.86	250	265	TRUE	
SNU216LR_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	8	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.4	0.469	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	8	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.51	0.405	0	0	1	1	2	3,631.49	108	138	TRUE	
SNU216LR_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	8	0.05%	13.00%	LDNVPHTPSSYIETLPK	R	A	95.00%	2.67	0.23	0	1	1	0	2	1,990.95	45	61	TRUE	
SNU216LR_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	8	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.29	0.472	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216LR_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	8	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.8	0.339	0	0	0	1	2	3,787.60	107	138	TRUE	
SNU216LR_PC4_02	Glutamate-rich WD repeat-containing protein 1	IPI00027831	49,418.40	100.00%	1	2	3	0.02%	6.73%	MHNLHGTKPPPSEGSDEEEEEEDEEDEEER	R	K	95.00%	5.94	0.656	0	0	1	2	2	3,669.34	108	137	TRUE	
SNU216LR_PC4_02	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	2	3	3	0.02%	4.29%	RGSSGSVVVDLLYWR	R	D	95.00%	3.88	0.42	0	1	1	0	2	1,773.87	179	193	TRUE	
SNU216LR_PC4_02	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	2	3	3	0.02%	4.29%	RRGSSGSVVVDLLYWR	K	D	95.00%	5.22	0.451	0	0	1	0	2	1,929.97	178	193	TRUE	
SNU216LR_PC4_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	99.80%	2	3	3	0.02%	5.50%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.65	0.541	0	1	1	0	2	2,586.99	308	328	TRUE	
SNU216LR_PC4_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	99.80%	2	3	3	0.02%	5.50%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	6.09	0.467	0	0	0	1	2	3,394.35	302	328	TRUE	
SNU216LR_PC5_02	Poly(rC)-binding protein 1	IPI00016610	37,498.20	100.00%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	3.36	0.244	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216LR_PC5_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	3	0.02%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.98	0.435	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216LR_PC5_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	3	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.6	0.216	0	0	0	1	2	2,858.38	8	33	TRUE	
SNU216LR_PC5_02	Conserved hypothetical protein	IPI00746221	14,015.50	99.80%	1	1	1	0.01%	13.70%	SPPSSSEIFTPAHEENVR	R	F	95.00%	4.24	0.467	0	1	0	0	2	2,063.91	55	72	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	GLGAGAGAGEESPATSLPR	R	M	95.00%	3.93	0.429	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.91	0.528	0	1	1	0	2	2,159.93	200	217	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	4.21	0.297	0	0	2	0	2	2,654.15	200	221	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	RGLGAGAGAGEESPATSLPR	R	M	95.00%	3.85	0.353	0	1	1	0	2	1,933.91	78	97	TRUE	
SNU216LR_PC5_02	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	2	2	2	0.01%	15.80%	DSSTSPGDYVLSVSENSR	R	V	95.00%	3.17	0.327	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216LR_PC5_02	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	2	2	2	0.01%	15.80%	VSHYIINSSGPRPPVPPSPAQPPPGVSPSR	R	L	95.00%	4.91	0.517	0	0	1	0	2	3,154.58	57	86	TRUE	
SNU216LR_PC5_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.96	0.415	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC5_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	4.87	0.0815	0	1	0	0	2	2,428.13	618	639	TRUE	
SNU216LR_PC5_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	NDSWGSFDLR	R	A	95.00%	1.92	0.392	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC5_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	RTSPQVLGSILK	K	S	95.00%	2.93	0.226	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC5_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	5	0.03%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	4.16	0.275	0	1	1	0	2	2,319.81	56	73	TRUE	
SNU216LR_PC5_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	5	0.03%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.97	0.622	0	2	0	0	2	2,111.75	57	73	TRUE	
SNU216LR_PC5_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	5	0.03%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	3.53	0.125	0	1	0	0	2	2,347.81	57	74	TRUE	
SNU216LR_PC5_02	FLJ20625 protein	IPI00016670	17,725.30	100.00%	3	3	3	0.02%	24.80%	KLLLDPSSPPTK	R	A	95.00%	3.1	0.215	0	1	0	0	2	1,375.72	20	31	TRUE	
SNU216LR_PC5_02	FLJ20625 protein	IPI00016670	17,725.30	100.00%	3	3	3	0.02%	24.80%	LAVLSSSLTHWK	R	K	95.00%	2.33	0.294	0	1	0	0	2	1,421.72	92	103	TRUE	
SNU216LR_PC5_02	FLJ20625 protein	IPI00016670	17,725.30	100.00%	3	3	3	0.02%	24.80%	MGCCYSSENEDSDQDR	-	E	95.00%	0.556	1	0	0	1	0	2	2,208.56	1	16	TRUE	
SNU216LR_PC5_02	Coatomer subunit beta'	IPI00220219	102,357.90	99.80%	1	2	2	0.01%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	4.43	0.411	0	0	1	1	2	3,113.52	846	874	TRUE	
SNU216LR_PC5_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.72	0.419	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC5_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	4.52	0.467	0	1	0	0	2	2,778.97	238	262	TRUE	
SNU216LR_PC5_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.57	0.43	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.4	0.415	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	GGVTGSPEASISGSK	K	G	95.00%	2.22	0.309	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	GHYEVTGSDDETGK	K	L	95.00%	2.67	0.536	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	86.70%	5.15	0.0581	0	0	1	0	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	GKGGVTGSPEASISGSK	K	G	95.00%	3.74	0.153	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	SKGHYEVTGSDDETGK	K	L	95.00%	2.97	0.446	0	1	0	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.25	0.393	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	8	8	10	0.06%	2.50%	VKTPEMIIQKPK	K	I	95.00%	2.68	0.35	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC5_02	Actin related protein 2/3 complex, subunit 5-like	IPI00414554	16,941.30	100.00%	1	1	1	0.01%	9.15%	AFHAALRNSPVNTK	R	N	95.00%	2.64	0.312	0	1	0	0	2	1,605.79	56	69	TRUE	
SNU216LR_PC5_02	U2 small nuclear ribonucleoprotein A'	IPI00297477	28,417.10	99.80%	1	1	1	0.01%	5.49%	SKTFNPGAGLPTDK	R	K	95.00%	2.73	0.298	0	1	0	0	2	1,512.71	178	191	TRUE	
SNU216LR_PC5_02	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	99.80%	1	1	1	0.01%	2.46%	TNTMNGSKSPVISR	R	P	95.00%	2.74	0.259	0	1	0	0	2	1,571.72	747	760	TRUE	
SNU216LR_PC5_02	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	2	2	2	0.01%	7.01%	NLGSINTELQDVQR	R	I	95.00%	2.63	0.368	0	1	0	0	2	1,666.78	133	146	TRUE	
SNU216LR_PC5_02	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	2	2	2	0.01%	7.01%	RNLGSINTELQDVQR	R	I	94.40%	2.84	0.172	0	1	0	0	2	1,822.88	132	146	TRUE	
SNU216LR_PC5_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	3.88	0.358	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC5_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.08	0.347	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216LR_PC5_02	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	2	2	0.01%	9.05%	KSPSGPVKSPPLSPVGTTPVK	R	L	95.00%	2.96	0.23	0	0	1	0	2	2,140.14	181	201	TRUE	
SNU216LR_PC5_02	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	2	2	0.01%	9.05%	SPSGPVKSPPLSPVGTTPVK	K	L	95.00%	2.9	0.21	0	1	0	0	2	2,092.01	182	201	TRUE	
SNU216LR_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.03%	11.20%	ETPHSPGVEDAPIAK	R	V	95.00%	2.61	0.381	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.03%	11.20%	LRSPPEALVQGR	R	Y	95.00%	2.32	0.31	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.03%	11.20%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.28	0.396	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.03%	11.20%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.82	0.471	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216LR_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.03%	11.20%	SNTENLSQHFR	R	K	95.00%	2.14	0.248	0	1	0	0	2	1,412.60	55	65	TRUE	
SNU216LR_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	7	7	0.04%	37.50%	GLGPSPAGDGPSGSGK	R	H	85.40%	1.93	0.243	0	1	0	0	2	1,420.61	21	36	TRUE	
SNU216LR_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	7	7	0.04%	37.50%	HSSYPAGTEDDEGMGEEPSPFR	R	G	95.00%	5.38	0.646	0	1	1	0	2	2,474.94	73	94	TRUE	
SNU216LR_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	7	7	0.04%	37.50%	RMSDEFVDSFK	R	K	95.00%	2.54	0.273	0	1	0	0	2	1,440.59	116	126	TRUE	
SNU216LR_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	7	7	0.04%	37.50%	RMSDEFVDSFKK	R	G	95.00%	2.94	0.354	0	1	1	0	2	1,568.68	116	127	TRUE	
SNU216LR_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	7	7	0.04%	37.50%	SRSAPPNLWAAQR	R	Y	95.00%	2.58	0.216	0	1	0	0	2	1,533.73	97	109	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_02	Putative MAPK activating protein	IPI00470594	16,997.50	99.80%	2	2	2	0.01%	30.30%	ILGSASPEEEQEKPILDRPTR	R	I	95.00%	2.44	0.277	0	0	1	0	2	2,445.20	102	122	TRUE	
SNU216LR_PC5_02	Putative MAPK activating protein	IPI00470594	16,997.50	99.80%	2	2	2	0.01%	30.30%	SKSPPKVPIVIQDDSLPAGPPPQIR	K	I	95.00%	4.55	0.405	0	0	1	0	2	2,716.44	37	61	TRUE	
SNU216LR_PC5_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	1	1	1	0.01%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.25	0.244	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC5_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	12	0.07%	18.10%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	R	F	95.00%	5.08	0.429	0	0	1	0	2	3,671.51	94	122	TRUE	
SNU216LR_PC5_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	12	0.07%	18.10%	DWEDDSDEDMSNFDR	K	F	95.00%	3.45	0.646	0	10	0	0	2	1,971.62	108	122	TRUE	
SNU216LR_PC5_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	12	0.07%	18.10%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	3.71	0.41	0	0	1	0	2	3,472.37	96	122	TRUE	
SNU216LR_PC5_02	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	2	5	0.03%	41.10%	KLEKEEEEGISQESSEEEQ	K	-	95.00%	3.43	0.55	0	3	0	0	2	2,396.93	89	107	TRUE	
SNU216LR_PC5_02	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	2	5	0.03%	41.10%	KQPPVSPGTALVGSQKEPSEVPTPK	R	R	95.00%	4.25	0.582	0	0	2	0	2	2,638.35	31	55	TRUE	
SNU216LR_PC5_02	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	3	3	0.02%	2.39%	EQLQPHENGEGNSET	R	-	95.00%	4.09	0.51	0	1	0	0	2	1,748.68	1034	1048	TRUE	
SNU216LR_PC5_02	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	3	3	0.02%	2.39%	VRPPQEEQEREQLQPHENGEGNSET	R	-	95.00%	4.33	0.329	0	0	1	1	2	2,997.30	1024	1048	TRUE	
SNU216LR_PC5_02	Ras-related protein R-Ras	IPI00020418	23,480.50	100.00%	1	2	5	0.03%	7.34%	KYQEQELPPSPPSAPR	R	K	95.00%	3.06	0.329	0	2	3	0	2	1,903.90	192	207	TRUE	
SNU216LR_PC5_02	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	3	0.02%	24.40%	DHANYEEDENGDITPIK	R	A	95.00%	3.96	0.438	0	1	0	0	2	2,039.82	134	150	TRUE	
SNU216LR_PC5_02	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	3	0.02%	24.40%	HKAEEVEDETVELDVSDEEMAR	K	R	95.00%	5.59	0.32	0	0	2	0	2	2,640.10	95	116	TRUE	
SNU216LR_PC5_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.60%	2	2	2	0.01%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	3.07	0.221	0	0	1	0	2	2,577.16	2398	2420	TRUE	
SNU216LR_PC5_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.60%	2	2	2	0.01%	1.53%	LVSFHDDSDEDLLHI	K	-	91.80%	2.53	0.178	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216LR_PC5_02	60S ribosomal protein L18	IPI00215719	21,504.00	100.00%	1	1	1	0.01%	7.49%	APGTPHSHTKPYVR	K	S	95.00%	2.77	0.222	0	0	0	1	2	1,627.77	154	167	TRUE	
SNU216LR_PC5_02	40S ribosomal protein S10	IPI00008438	18,898.30	100.00%	1	1	1	0.01%	9.09%	KAEAGAGSATEFQFR	K	G	95.00%	3.47	0.35	0	1	0	0	2	1,649.73	139	153	TRUE	
SNU216LR_PC5_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	2	2	0.01%	4.85%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	3.79	0.548	0	0	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC5_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	2	2	0.01%	4.85%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	3.02	0.326	0	1	0	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC5_02	23 kDa protein	IPI00002821,IPI00069693,IP	23,259.00	100.00%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	95.00%	2.38	0.281	1	0	0	0	2	978.5385	133	141	TRUE	
SNU216LR_PC5_02	RNA binding motif protein 25	IPI00004273	100,189.10	99.70%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVK	K	R	94.50%	2.3	0.219	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216LR_PC5_02	RNA binding motif protein 25	IPI00004273	100,189.10	99.70%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVKR	K	K	95.00%	2.37	0.265	0	1	0	0	2	1,591.76	672	686	TRUE	
SNU216LR_PC5_02	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	100.00%	1	1	6	0.03%	5.67%	ESLKEEDESDDDNM	K	-	95.00%	3.82	0.607	0	6	0	0	2	1,751.58	242	255	TRUE	
SNU216LR_PC5_02	FK506-binding protein 3	IPI00024157	25,177.40	100.00%	1	1	1	0.01%	6.25%	ETKSEETLDEGPPK	K	Y	92.20%	2.15	0.228	0	1	0	0	2	1,639.71	97	110	TRUE	
SNU216LR_PC5_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	22	0.13%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.6	0.605	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216LR_PC5_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	22	0.13%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	5.63	0.22	0	0	2	1	2	4,104.59	78	115	TRUE	
SNU216LR_PC5_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	22	0.13%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	7.91	0.237	0	0	5	12	2	4,260.69	78	116	TRUE	
SNU216LR_PC5_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.90%	2	2	2	0.01%	3.58%	KKEEPSQNDISPK	K	T	95.00%	2.7	0.361	0	1	0	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC5_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.90%	2	2	2	0.01%	3.58%	NEEPSEEEIDAPKPK	K	K	95.00%	3.8	0.411	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC5_02	sorting nexin 3 isoform a	IPI00029740	18,763.00	100.00%	1	1	1	0.01%	5.56%	RYSDFEWLR	R	S	86.30%	2.08	0.178	0	1	0	0	2	1,351.58	70	78	TRUE	
SNU216LR_PC5_02	Proteasome subunit alpha type 5	IPI00291922	26,411.30	100.00%	2	2	2	0.01%	9.96%	GVNTFSPEGR	R	L	93.90%	2.03	0.231	0	1	0	0	2	1,143.48	11	20	TRUE	
SNU216LR_PC5_02	Proteasome subunit alpha type 5	IPI00291922	26,411.30	100.00%	2	2	2	0.01%	9.96%	RITSPLMEPSSIEK	K	I	95.00%	2.44	0.248	0	1	0	0	2	1,667.81	53	66	TRUE	
SNU216LR_PC5_02	Isoform B of Ras-related C3 botulinum toxin subs	IPI00219675	23,468.00	100.00%	1	1	1	0.01%	7.58%	LRPLSYPQTVGETYGK	R	D	95.00%	3.89	0.462	0	1	0	0	2	1,888.92	67	82	TRUE	
SNU216LR_PC5_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	ADLNQGIGEPQSPSR	R	R	95.00%	2.74	0.29	0	1	0	0	2	1,648.73	63	77	TRUE	
SNU216LR_PC5_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSR	R	R	95.00%	2.45	0.346	0	1	0	0	2	1,804.83	62	77	TRUE	
SNU216LR_PC5_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSRR	R	V	95.00%	3.39	0.297	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216LR_PC5_02	60S ribosomal protein L12	IPI00024933,IPI00479158	17,819.10	100.00%	1	1	1	0.01%	5.45%	IGPLGLSPK	K	K	86.50%	1.86	0.223	0	1	0	0	2	961.5121	32	40	TRUE	
SNU216LR_PC5_02	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	4	4	0.02%	12.00%	KLEDVKNSPTFK	K	S	95.00%	3.64	0.377	0	1	1	0	2	1,485.74	124	135	TRUE	
SNU216LR_PC5_02	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	4	4	0.02%	12.00%	NSPTFKSFEEKVENLK	K	S	95.00%	3.1	0.362	0	1	1	0	2	1,976.94	130	145	TRUE	
SNU216LR_PC5_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	99.80%	1	1	1	0.01%	3.45%	GRLSPVPVPR	R	A	82.10%	1.87	0.26	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216LR_PC5_02	Isoform 1 of Acidic leucine-rich nuclear phosphop	IPI00007423	28,788.70	99.80%	1	1	1	0.01%	4.38%	KRETDDEGEDD	R	-	95.00%	2.56	0.368	0	1	0	0	2	1,388.49	241	251	TRUE	
SNU216LR_PC5_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	1	1	0.01%	3.51%	KKSPNELVDDLFK	K	G	95.00%	3.41	0.33	0	0	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC5_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	99.80%	2	2	3	0.02%	2.92%	EIQNGNLHESDSESVPR	K	D	95.00%	3	0.227	0	2	0	0	2	1,990.85	66	82	TRUE	
SNU216LR_PC5_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	99.80%	2	2	3	0.02%	2.92%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	3.66	0.419	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	99.50%	2	2	2	0.01%	0.90%	KRQSPEPSPVTLGR	R	R	95.00%	3.61	0.317	0	0	1	0	2	1,631.83	1411	1424	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	99.50%	2	2	2	0.01%	0.90%	RQSPEPSPVTLGR	K	R	80.10%	2.01	0.242	0	1	0	0	2	1,503.73	1412	1424	TRUE	
SNU216LR_PC5_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	1	1	1	0.01%	2.01%	AGGLDWPEATEVSPSR	R	T	95.00%	2.9	0.249	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC5_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	4	4	0.02%	39.00%	AQLGGPEAAKSDETAAK	R	-	95.00%	2.83	0.347	0	1	0	0	2	1,723.79	189	205	TRUE	
SNU216LR_PC5_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	4	4	0.02%	39.00%	GPSWDPFRDWYPHSR	R	L	95.00%	2.9	0.391	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC5_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	4	4	0.02%	39.00%	LPEEWSQWLGGSSWPGYVRPLPPAAIESPA	R	A	95.00%	4.63	0.201	0	0	1	0	2	4,173.03	38	75	TRUE	
SNU216LR_PC5_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	4	4	0.02%	39.00%	QLSSGVSEIR	R	H	89.50%	1.88	0.225	1	0	0	0	2	1,155.54	80	89	TRUE	
SNU216LR_PC5_02	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	2.49	0.204	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216LR_PC5_02	Isoform Alpha of Caveolin-2	IPI00019870,IPI00386526	18,291.60	99.30%	1	2	2	0.01%	15.40%	ADVQLFMDDDSYSHHSGLEYADPEK	K	F	95.00%	4.22	0.142	0	1	1	0	2	2,965.19	8	32	TRUE	
SNU216LR_PC5_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	1	1	1	0.01%	0.75%	NRSAEEGELAESK	R	S	95.00%	3.36	0.329	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	3	3	3	0.02%	2.27%	KLGAGEGGEASVSPEK	K	T	95.00%	2.68	0.268	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	3	3	3	0.02%	2.27%	LGAGEGGEASVSPEK	K	T	81.00%	2.11	0.202	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216LR_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	3	3	3	0.02%	2.27%	TSQVGAASAPAKESPR	K	K	95.00%	2.74	0.351	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC5_02	Isoform 1 of Apoptotic chromatin condensation a	IPI00007334	151,887.90	99.80%	1	1	1	0.01%	1.27%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.9	0.321	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	27.20%	EEDEEPESPPEKK	K	T	95.00%	2.42	0.28	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	27.20%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	4.31	0.559	0	1	0	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	27.20%	LKATVTPSPVKGK	R	G	95.00%	2.9	0.433	0	1	0	0	2	1,405.78	174	186	TRUE	
SNU216LR_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	27.20%	NSQEDSEDSEDKDVK	K	T	95.00%	3.57	0.31	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216LR_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	5	6	0.03%	27.20%	TPSPKEEDEEPESPPEKK	K	T	91.10%	3.26	0.152	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216LR_PC5_02	Chloride intracellular channel protein 1	IPI00010896,IPI00646484	26,184.40	100.00%	1	1	1	0.01%	11.20%	VLDNYLTSPLPEEVDETSAEDEGVSQR	K	K	95.00%	2.97	0.198	0	0	1	0	2	3,072.36	139	165	TRUE	
SNU216LR_PC5_02	Density-regulated protein	IPI00306280	22,285.70	99.80%	1	1	1	0.01%	13.10%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	4.51	0.362	0	0	1	0	2	2,797.24	69	94	TRUE	
SNU216LR_PC5_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	4	10	0.06%	60.00%	KEESEESDDDMGFGLFD	K	-	95.00%	3.66	0.505	0	7	0	0	2	2,029.73	99	115	TRUE	
SNU216LR_PC5_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	4	10	0.06%	60.00%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	4.02	0.465	0	0	1	0	2	2,854.40	62	94	TRUE	
SNU216LR_PC5_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	4	10	0.06%	60.00%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.74	0.414	0	1	1	0	2	1,948.94	3	21	TRUE	
SNU216LR_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	IISTTASKTETPIVSK	K	S	95.00%	2.48	0.215	0	1	0	0	2	1,755.91	140	155	TRUE	
SNU216LR_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	KTVQSNSPISALAPTGK	R	E	82.90%	4.02	0.0098	0	1	0	0	2	1,778.91	200	216	TRUE	
SNU216LR_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	SLSSSLDDTEVKK	K	V	95.00%	3.01	0.429	0	2	0	0	2	1,488.68	156	168	TRUE	
SNU216LR_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	TVQSNSPISALAPTGK	K	E	95.00%	2.99	0.301	0	1	0	0	2	1,650.81	201	216	TRUE	
SNU216LR_PC5_02	DNA polymerase epsilon subunit 3	IPI00010141	16,859.90	100.00%	1	1	1	0.01%	13.60%	TDSEEQDKSRDEDNDEDEER	K	L	95.00%	3.9	0.35	0	0	1	0	2	2,520.91	114	133	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_02	76 kDa protein	IPI00743778	75,757.70	99.80%	2	3	4	0.02%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.9	0.575	0	1	2	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC5_02	76 kDa protein	IPI00743778	75,757.70	99.80%	2	3	4	0.02%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	6.35	0.561	0	0	1	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC5_02	hematological and neurological expressed 1 isofo	IPI00007764,IPI00384857	16,014.60	99.90%	1	1	1	0.01%	9.74%	RNSSEASSGDFLDLK	R	G	95.00%	3.8	0.339	0	1	0	0	2	1,705.74	85	99	TRUE	
SNU216LR_PC5_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	3	3	0.02%	2.15%	SHSPSASQSGSQLR	R	N	95.00%	2.26	0.32	0	1	1	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC5_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.80%	2	3	3	0.02%	2.15%	TSTTGVATTQSPTPR	K	S	95.00%	2.47	0.305	0	1	0	0	2	1,584.73	1242	1256	TRUE	
SNU216LR_PC5_02	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	99.80%	2	2	2	0.01%	9.63%	QQDPSPGSNLGGGDDLK	R	L	95.00%	3.88	0.409	0	1	0	0	2	1,764.74	169	185	TRUE	
SNU216LR_PC5_02	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	99.80%	2	2	2	0.01%	9.63%	RQQDPSPGSNLGGGDDLK	R	L	95.00%	3.54	0.275	0	1	0	0	2	1,920.85	168	185	TRUE	
SNU216LR_PC5_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	3	3	0.02%	7.30%	GSDPASGEVEASQLR	R	R	95.00%	2.65	0.261	0	1	0	0	2	1,582.67	106	120	TRUE	
SNU216LR_PC5_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	3	3	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	3.31	0.414	0	1	0	0	2	1,738.78	105	120	TRUE	
SNU216LR_PC5_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	3	3	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.05	0.428	0	0	1	0	2	1,894.88	104	120	TRUE	
SNU216LR_PC5_02	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	4	0.02%	18.00%	ELDEEGSDPPLPGR	R	A	95.00%	2.67	0.272	0	2	0	0	2	1,590.67	169	182	TRUE	
SNU216LR_PC5_02	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	4	0.02%	18.00%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.12	0.355	0	1	1	0	2	2,372.11	44	64	TRUE	
SNU216LR_PC5_02	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	1	0.01%	4.44%	VDGPRSPSYGR	K	S	95.00%	2.32	0.328	0	1	0	0	2	1,270.56	194	204	TRUE	
SNU216LR_PC5_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	6	0.03%	16.30%	AEDGATPSPSNETPK	K	K	95.00%	3.13	0.41	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC5_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	6	0.03%	16.30%	AEDGATPSPSNETPKK	K	K	95.00%	2.7	0.308	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC5_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	6	0.03%	16.30%	AEDGATPSPSNETPKKK	K	K	89.50%	2.9	0.21	0	0	1	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC5_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	6	0.03%	16.30%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.88	0.356	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC5_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	6	0.03%	16.30%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.91	0.449	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC5_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	3	0.02%	14.10%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.97	0.532	0	0	1	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC5_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	3	0.02%	14.10%	HASPILPTIEFSDIPR	K	R	95.00%	3.72	0.37	0	1	1	0	2	1,872.93	304	319	TRUE	
SNU216LR_PC5_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	3	0.02%	14.10%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	3.72	0.201	0	0	1	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC5_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	61,761.70	100.00%	3	4	6	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.26	0.353	0	2	1	0	2	2,013.96	398	415	TRUE	
SNU216LR_PC5_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	61,761.70	100.00%	3	4	6	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.09	0.511	0	1	0	0	2	1,590.71	416	429	TRUE	
SNU216LR_PC5_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	61,761.70	100.00%	3	4	6	0.03%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.05	0.409	0	2	0	0	2	1,814.83	400	415	TRUE	
SNU216LR_PC5_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.90%	2	2	2	0.01%	7.99%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.93	0.301	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC5_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.90%	2	2	2	0.01%	7.99%	SPVSTRPLPSASQK	R	A	95.00%	2.35	0.226	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216LR_PC5_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	3	0.02%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	2.17	0.278	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC5_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	3	0.02%	16.10%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	6.82	0.54	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC5_02	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSEPSRPSPQI	R	P	95.00%	6.99	0.527	0	0	1	0	2	3,119.47	117	148	TRUE	
SNU216LR_PC5_02	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSEPSRPSPQI	R	T	95.00%	5.55	0.49	0	0	1	1	2	3,372.62	117	150	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.02%	6.20%	ETQSPEQVKSEK	K	L	95.00%	2.1	0.324	0	1	0	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.02%	6.20%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.16	0.547	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.02%	6.20%	KAEGEPQEESPLK	K	S	95.00%	3.53	0.343	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.02%	6.20%	NTPSQHSHSIQHSPER	K	S	95.00%	3.04	0.336	0	0	1	0	2	1,921.83	256	271	TRUE	
SNU216LR_PC5_02	PQ loop repeat containing 1	IPI00181586	30,478.00	98.60%	1	1	1	0.01%	4.80%	SFTAADSKDEEVK	R	V	91.90%	2.45	0.176	0	1	0	0	2	1,506.64	110	122	TRUE	
SNU216LR_PC5_02	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	100.00%	1	1	1	0.01%	10.00%	DIIRQPSEEEIIK	K	L	95.00%	3.12	0.19	0	1	0	0	2	1,649.81	131	143	TRUE	
SNU216LR_PC5_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	1	2	2	0.01%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	3.03	0.325	0	1	1	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC5_02	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	100.00%	1	1	2	0.01%	1.35%	QPTPPFGR	R	D	95.00%	1.79	0.425	0	2	0	0	2	1,126.51	204	212	TRUE	
SNU216LR_PC5_02	40S ribosomal protein S17	IPI00221093	15,419.30	100.00%	1	2	2	0.01%	16.40%	LLDFGSLSNLQVTQPTVGMNFK	K	T	95.00%	4.71	0.419	0	1	1	0	2	2,489.21	107	128	TRUE	
SNU216LR_PC5_02	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.7	0.583	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216LR_PC5_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	1	1	1	0.01%	3.11%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	3.19	0.428	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216LR_PC5_02	septin 9	IPI00748715	63,634.10	99.80%	1	1	1	0.01%	2.82%	SFEVEEVETPNSTPPR	R	R	95.00%	3.78	0.507	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC5_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.80%	1	1	1	0.01%	1.09%	GSYGSDAEEEEYR	R	Q	95.00%	2.36	0.47	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC5_02	Isoform 1 of RNA-binding protein 8A	IPI00001757	19,889.40	100.00%	1	2	3	0.02%	10.90%	MREDYDSVEQDGDEPGPQR	R	S	95.00%	3.82	0.427	0	1	2	0	2	2,302.89	50	68	TRUE	
SNU216LR_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELK	K	R	95.00%	4.81	0.0476	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216LR_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELKR	K	R	89.10%	5.16	0.0429	0	0	1	0	2	2,182.98	46	64	TRUE	
SNU216LR_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELK	R	R	95.00%	3.11	0.465	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216LR_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELKR	R	R	95.00%	2.67	0.192	0	1	0	0	2	1,811.78	49	64	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	3.52	0.351	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.45	0.604	0	2	2	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	4.37	0.319	0	1	1	1	2	2,504.04	172	192	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	4.57	0.624	0	2	1	0	2	2,115.85	47	66	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	5.24	0.553	0	1	1	0	2	2,484.10	44	66	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	LLKEGEEPTVYSDEEEPK	K	D	95.00%	3.73	0.329	0	1	1	0	2	2,171.96	169	186	TRUE	
SNU216LR_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.47	0.479	0	1	1	1	2	2,730.20	169	191	TRUE	
SNU216LR_PC5_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.39	0.317	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC5_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.32	0.46	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	23,786.80	100.00%	4	4	5	0.03%	28.20%	GLLSDSMTDVPVDTGVAAR	K	T	95.00%	3.9	0.416	0	2	0	0	2	1,983.91	16	34	TRUE	
SNU216LR_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	23,786.80	100.00%	4	4	5	0.03%	28.20%	MDSAGQDINLNSPNKGLLSDSMTDVPVDT	-	T	95.00%	4.37	0.462	0	0	1	0	2	3,664.59	1	34	TRUE	
SNU216LR_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	23,786.80	100.00%	4	4	5	0.03%	28.20%	NSATFKSFEDR	R	V	95.00%	2.34	0.315	0	1	0	0	2	1,381.58	174	184	TRUE	
SNU216LR_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	23,786.80	100.00%	4	4	5	0.03%	28.20%	SWHDVQVSSAYVK	R	T	95.00%	3.04	0.341	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216LR_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	11	13	0.07%	20.30%	ASGQAFELILSPR	R	S	95.00%	2.52	0.377	0	1	1	0	2	1,468.72	14	26	TRUE	
SNU216LR_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	11	13	0.07%	20.30%	ESVPEFPLSPPK	K	K	95.00%	2.18	0.377	0	1	0	0	2	1,406.66	29	40	TRUE	
SNU216LR_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	11	13	0.07%	20.30%	ESVPEFPLSPPKK	K	K	95.00%	2.82	0.388	0	1	1	0	2	1,534.76	29	41	TRUE	
SNU216LR_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	11	13	0.07%	20.30%	ESVPEFPLSPPKKK	K	D	95.00%	2.74	0.363	0	1	1	0	2	1,662.85	29	42	TRUE	
SNU216LR_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	11	13	0.07%	20.30%	RASGQAFELILSPR	R	S	95.00%	3.14	0.397	0	1	2	0	2	1,704.79	13	26	TRUE	
SNU216LR_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	11	13	0.07%	20.30%	SKESVPEFPLSPPK	R	K	95.00%	3.3	0.473	0	2	1	0	2	1,621.79	27	40	TRUE	
SNU216LR_PC5_02	Centromere protein A	IPI00027152,IPI00386842	15,991.20	99.10%	2	2	2	0.01%	10.00%	RRSPSPTPTPGPSR	R	R	95.00%	2.7	0.346	0	0	1	0	2	1,572.76	15	28	TRUE	
SNU216LR_PC5_02	Centromere protein A	IPI00027152,IPI00386842	15,991.20	99.10%	2	2	2	0.01%	10.00%	SPSPTPTPGPSR	R	R	82.60%	1.76	0.253	0	1	0	0	2	1,340.53	17	28	TRUE	
SNU216LR_PC5_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	1	1	1	0.01%	2.23%	QSVDKVTSPTKV	K	-	95.00%	2.85	0.196	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC5_02	Histone H2B.a/g/h/k/l	IPI00020101,IPI00152906,IP	13,761.40	100.00%	1	1	1	0.01%	8.00%	KESYSVYVYK	R	V	95.00%	2.16	0.238	0	1	0	0	2	1,345.61	34	43	TRUE	
SNU216LR_PC5_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.90%	2	2	2	0.01%	9.90%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.14	0.191	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216LR_PC5_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.90%	2	2	2	0.01%	9.90%	EEVVGGDDSDGLR	R	A	95.00%	2.56	0.349	0	1	0	0	2	1,427.57	110	122	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.40%	1	1	1	0.01%	2.22%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.22	0.442	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC5_02	Casein kinase II subunit beta	IPI00010865,IPI00640088	24,942.90	99.80%	1	3	6	0.03%	9.77%	IHPMAYQLQLQAASNFKSPVK	K	T	95.00%	4.99	0.484	0	1	4	1	2	2,467.22	192	212	TRUE	
SNU216LR_PC5_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.13%	NPYDPPGRCDPPVISNITKDHMTVSWK	K	P	83.50%	3.28	0.152	0	0	1	0	2	3,300.43	20318	20344	TRUE	
SNU216LR_PC5_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.13%	SSISLGWKPPAKDGGSPIK	K	G	95.00%	3.12	0.25	0	1	0	0	2	2,084.98	16554	16572	TRUE	
SNU216LR_PC5_02	RAB31, member RAS oncogene family variant	IPI00014376	21,700.30	100.00%	1	1	1	0.01%	10.80%	FVQDHFDHNISPTIGASFMTK	R	T	95.00%	3.74	0.236	0	0	1	0	2	2,472.11	26	46	TRUE	
SNU216LR_PC5_02	Emerin	IPI00032003	28,994.90	99.80%	1	1	1	0.01%	8.66%	RLSPPSSSAASSYSFSDLNSTR	R	G	95.00%	3.79	0.263	0	0	1	0	2	2,397.07	47	68	TRUE	
SNU216LR_PC5_02	GTP-binding protein SAR1a	IPI00015954	22,367.80	100.00%	1	1	1	0.01%	5.56%	IDRTDAISEEK	K	L	95.00%	2.81	0.269	0	1	0	0	2	1,356.60	136	146	TRUE	
SNU216LR_PC5_02	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	KSPRPAGPQLFLPDPDPQR	R	G	95.00%	3.8	0.366	0	0	1	0	2	2,196.10	151	169	TRUE	
SNU216LR_PC5_02	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	LAAAEETAVSPR	R	K	95.00%	2.95	0.523	0	1	0	0	2	1,294.60	139	150	TRUE	
SNU216LR_PC5_02	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	LAAAEETAVSPRKSPR	R	P	95.00%	2.36	0.292	0	1	0	0	2	1,842.85	139	154	TRUE	
SNU216LR_PC5_02	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	RLAAAEETAVSPR	R	K	95.00%	2.67	0.282	0	0	1	0	2	1,450.71	138	150	TRUE	
SNU216LR_PC5_02	SFN protein	IPI00411765	24,337.00	100.00%	1	1	1	0.01%	6.48%	SNEEGSEEKGPEVR	K	E	88.30%	2.38	0.177	0	1	0	0	2	1,626.66	69	82	TRUE	
SNU216LR_PC5_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.01%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.44	0.432	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC5_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.01%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.33	0.296	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC5_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.03%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.36	0.396	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC5_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.03%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.94	0.582	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC5_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.28	0.328	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216LR_PC5_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.04	0.62	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC5_02	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	2	2	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	3.64	0.367	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216LR_PC5_02	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	94.50%	5.39	0.0712	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216LR_PC5_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.10%	2	2	2	0.01%	2.99%	GLLYDSDEEDEERPAR	R	K	95.00%	2.81	0.301	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC5_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.10%	2	2	2	0.01%	2.99%	GNDPLTSSPGR	R	S	82.40%	1.91	0.217	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC5_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	3	3	3	0.02%	10.40%	RPHTPTPGIYMGR	K	P	88.60%	2.29	0.24	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC5_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	3	3	3	0.02%	10.40%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.86	0.364	0	0	1	0	2	2,311.08	198	217	TRUE	
SNU216LR_PC5_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.90%	3	3	3	0.02%	10.40%	RRSPSPYYSR	R	D	81.20%	2.22	0.212	0	0	1	0	2	1,348.62	262	271	TRUE	IPI00013891
SNU216LR_PC5_02	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	3	0.02%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	2.86	0.333	0	0	3	0	2	2,581.01	131	153	TRUE	
SNU216LR_PC5_02	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	2	3	3	0.02%	5.28%	KQSLGELIGTLNAAK	K	V	95.00%	4.27	0.533	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216LR_PC5_02	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	2	3	3	0.02%	5.28%	QSLGELIGTLNAAK	K	V	89.50%	2.09	0.226	0	1	0	0	2	1,494.76	55	68	TRUE	
SNU216LR_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	4	4	0.02%	24.50%	KVASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	5.35	0.42	0	0	1	0	2	2,986.57	103	133	TRUE	
SNU216LR_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	4	4	0.02%	24.50%	KVYEDSGIPLPAESPK	R	K	95.00%	5.01	0.403	0	1	0	0	2	1,809.87	83	98	TRUE	
SNU216LR_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	4	4	0.02%	24.50%	VASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	4.17	0.422	0	0	1	0	2	2,858.47	104	133	TRUE	
SNU216LR_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	4	4	0.02%	24.50%	VYEDSGIPLPAESPK	K	K	95.00%	3.02	0.327	0	1	0	0	2	1,681.77	84	98	TRUE	
SNU216LR_PC5_02	NME2 protein	IPI00604590	32,642.20	100.00%	1	1	1	0.01%	5.82%	VMLGETNPADSKPGTIR	R	G	95.00%	2.25	0.27	0	1	0	0	2	1,865.88	114	130	TRUE	
SNU216LR_PC5_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	3	4	4	0.02%	4.04%	DMESPTKLDVTLAK	K	D	95.00%	4.05	0.275	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC5_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	3	4	4	0.02%	4.04%	ETERASPIKMDLAPSK	K	D	95.00%	2.9	0.308	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC5_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	3	4	4	0.02%	4.04%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.2	0.34	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC5_02	Mitochondrial import receptor subunit TOM22 ho	IPI00024976	15,390.90	100.00%	1	1	1	0.01%	14.90%	AAAVAAAGAGEPQSPDELLPK	-	G	95.00%	2.91	0.289	0	1	0	0	2	2,042.98	1	21	TRUE	
SNU216LR_PC5_02	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	4	4	0.02%	13.00%	HGESAWNLENR	R	F	95.00%	2.19	0.338	0	1	0	0	2	1,392.57	10	20	TRUE	
SNU216LR_PC5_02	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	4	4	0.02%	13.00%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	5.04	0.436	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216LR_PC5_02	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	4	4	0.02%	13.00%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	3.72	0.356	0	1	1	0	2	2,497.08	117	137	TRUE	
SNU216LR_PC5_02	Calnexin precursor	IPI00020984	67,570.20	99.80%	1	2	2	0.01%	3.21%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.63	0.284	0	1	1	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC5_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	2	0.01%	7.59%	IGEGTYGVVYK	K	G	95.00%	2.77	0.31	0	1	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216LR_PC5_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	2	0.01%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.38	0.307	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216LR_PC5_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	1	1	1	0.01%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.97	0.532	0	0	1	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC5_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	5	0.03%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.2	0.327	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216LR_PC5_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	5	0.03%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE	K	G	87.90%	6.28	0.0001	0	0	1	1	2	3,462.56	246	276	TRUE	
SNU216LR_PC5_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	5	0.03%	14.80%	PKPSSSPVIFAGGQDR	R	Y	95.00%	2.62	0.21	0	1	0	0	2	1,722.82	184	199	TRUE	
SNU216LR_PC5_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	5	0.03%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	2.74	0.417	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216LR_PC5_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	1	1	1	0.01%	3.86%	SSSPAPADIAQTVQEDLR	K	T	95.00%	4.11	0.529	0	1	0	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC5_02	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	1	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	2.93	0.489	0	1	0	0	2	2,243.88	116	134	TRUE	
SNU216LR_PC5_02	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	5.20%	SRSFDYNYR	R	R	95.00%	2.12	0.254	0	1	0	0	2	1,287.52	131	139	TRUE	
SNU216LR_PC5_02	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	2	2	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE	K	T	95.00%	7.74	0.0589	0	0	1	1	2	4,013.68	6	39	TRUE	
SNU216LR_PC5_02	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	3	3	0.02%	9.05%	GSPHYFSPFRPY	R	-	95.00%	2.18	0.292	1	0	1	0	2	1,534.65	210	221	TRUE	
SNU216LR_PC5_02	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	3	3	0.02%	9.05%	STSYGYSR	R	S	95.00%	2.08	0.384	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216LR_PC5_02	Isoform TAFII20 of Transcription initiation factor T	IPI00002806,IPI00759817	14,825.00	99.80%	2	2	2	0.01%	13.00%	IPGTPGAGGRLSPENNQVLTK	K	K	95.00%	2.82	0.393	0	1	0	0	2	2,186.10	10	30	TRUE	
SNU216LR_PC5_02	Isoform TAFII20 of Transcription initiation factor T	IPI00002806,IPI00759817	14,825.00	99.80%	2	2	2	0.01%	13.00%	LSPENNQVLTK	R	K	95.00%	2.19	0.289	0	1	0	0	2	1,322.64	20	30	TRUE	
SNU216LR_PC5_02	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	4	4	0.02%	13.60%	ERSPSPLRGNVVPSPLPTR	R	R	95.00%	3.45	0.309	0	1	1	0	2	2,299.04	28	46	TRUE	
SNU216LR_PC5_02	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	4	4	0.02%	13.60%	GNVVPSPLPTR	R	R	95.00%	1.65	0.366	0	1	0	0	2	1,216.61	36	46	TRUE	
SNU216LR_PC5_02	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	4	4	0.02%	13.60%	GNVVPSPLPTRR	R	T	95.00%	1.91	0.307	0	1	0	0	2	1,372.71	36	47	TRUE	
SNU216LR_PC5_02	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	4	4	0.02%	9.68%	KVMDSDEDDDY	R	-	95.00%	2.59	0.366	1	1	0	0	2	1,411.46	114	124	TRUE	
SNU216LR_PC5_02	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	4	4	0.02%	9.68%	RKVMDSDEDDDY	R	-	92.20%	2.1	0.223	0	1	0	0	2	1,567.56	113	124	TRUE	
SNU216LR_PC5_02	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	4	4	0.02%	9.68%	VMDSDEDDDY	K	-	95.00%	1.93	0.24	1	0	0	0	2	1,283.37	115	124	TRUE	
SNU216LR_PC5_02	Centrin-2	IPI00215928	19,739.60	99.80%	1	2	2	0.01%	9.30%	MSPKPELTEEQKQEIR	R	E	95.00%	3.32	0.355	0	1	1	0	2	2,022.96	19	34	TRUE	
SNU216LR_PC5_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	95.00%	3.89	0.288	0	0	0	1	2	3,940.73	145	179	TRUE	
SNU216LR_PC5_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	7	0.04%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.98	0.559	0	1	1	0	2	2,671.09	14	37	TRUE	
SNU216LR_PC5_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	7	0.04%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.6	0.611	0	2	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC5_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	7	0.04%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	5.21	0.517	0	1	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC5_02	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	4	4	5	0.03%	32.30%	KVSSAEGAAKEEPK	R	R	95.00%	2.88	0.399	0	0	1	0	2	1,510.72	4	17	TRUE	
SNU216LR_PC5_02	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	4	4	5	0.03%	32.30%	TEESPASDEAGEK	K	E	95.00%	2.61	0.406	0	2	0	0	2	1,429.54	82	94	TRUE	
SNU216LR_PC5_02	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	4	4	5	0.03%	32.30%	TEESPASDEAGEKEAK	K	S	95.00%	2.93	0.387	0	1	0	0	2	1,757.71	82	97	TRUE	
SNU216LR_PC5_02	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	4	4	5	0.03%	32.30%	TEESPASDEAGEKEAKSD	K	-	95.00%	3.62	0.453	0	1	0	0	2	1,959.77	82	99	TRUE	
SNU216LR_PC5_02	BET1-like protein	IPI00009772,IPI00396263	11,137.60	99.30%	1	1	1	0.01%	11.70%	AQSPGAVEEILDR	R	E	95.00%	2.3	0.427	0	1	0	0	2	1,464.67	7	19	TRUE	
SNU216LR_PC5_02	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	1	1	0.01%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	3.8	0.205	0	0	0	1	2	3,901.66	12	44	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_02	Cyclin-C	IPI00031076,IPI00554688	35,559.70	99.80%	1	1	1	0.01%	6.93%	VEEFGVVSNTRLIAAATSVLK	K	T	95.00%	3.09	0.291	0	1	0	0	2	2,284.19	117	137	TRUE	
SNU216LR_PC5_02	Eukaryotic translation initiation factor 1A, Y-chron	IPI00023004,IPI00232533	16,330.10	100.00%	1	1	1	0.01%	21.00%	INETDTFGPGDDDEIQFDDIGDDDEDIDDI	K	-	95.00%	3.37	0.231	0	0	1	0	2	3,518.27	114	143	TRUE	
SNU216LR_PC5_02	Isoform 1 of PEST-containing nuclear protein	IPI00291608	18,925.40	100.00%	1	1	1	0.01%	13.50%	TLSVAAAFNEDEDSEPEEMPPEAK	K	M	95.00%	3.22	0.345	0	1	0	0	2	2,686.11	106	129	TRUE	
SNU216LR_PC5_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	3	4	0.02%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	2.99	0.342	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216LR_PC5_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	3	4	0.02%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	4.42	0.38	0	0	1	2	2	2,333.13	446	466	TRUE	
SNU216LR_PC5_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	3	0.499	0	1	0	0	2	2,304.83	179	197	TRUE	
SNU216LR_PC5_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	5.08	0.418	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216LR_PC5_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	3.38	0.489	0	2	0	0	2	2,075.77	12	28	TRUE	
SNU216LR_PC5_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	3.87	0.338	0	0	1	0	2	2,231.87	11	28	TRUE	
SNU216LR_PC5_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	2.96	0.22	0	0	1	0	2	1,887.86	250	265	TRUE	
SNU216LR_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	3	5	7	0.04%	12.10%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	4.95	0.502	0	1	2	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	3	5	7	0.04%	12.10%	QRSLGPSLATDKS	R	-	95.00%	2.17	0.272	0	1	0	0	2	1,439.69	268	280	TRUE	
SNU216LR_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	3	5	7	0.04%	12.10%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.73	0.626	0	2	1	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC5_02	Isoform 1 of ADP-ribosylation factor GTPase-activ	IPI00175169,IPI00217354	45,675.50	99.80%	1	1	1	0.01%	3.94%	RSSDSWEVWGSASTNR	R	N	95.00%	2.39	0.25	0	1	0	0	2	1,904.79	367	382	TRUE	
SNU216LR_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	7	7	0.04%	4.56%	EKEISDDEAEEEK	R	G	95.00%	2.87	0.328	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	7	7	0.04%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.1	0.476	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	7	7	0.04%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.96	0.445	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	7	7	0.04%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.09	0.49	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	7	7	0.04%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	2.83	0.394	0	1	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC5_02	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSER	R	E	95.00%	2.78	0.475	0	1	0	0	2	1,418.54	194	207	TRUE	
SNU216LR_PC5_02	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	3.21	0.498	0	3	0	0	2	1,644.64	194	209	TRUE	
SNU216LR_PC5_02	KIAA1143	IPI00410618	17,483.50	100.00%	2	2	2	0.01%	18.20%	IQPQPPDEDGDHSDKEDEQPQVVVLKK	R	G	95.00%	3.52	0.24	0	0	0	1	2	3,150.46	38	64	TRUE	
SNU216LR_PC5_02	KIAA1143	IPI00410618	17,483.50	100.00%	2	2	2	0.01%	18.20%	RIQPQPPDEDGDHSDKEDEQPQVVVLK	K	K	95.00%	4.72	0.439	0	0	0	1	2	3,178.47	37	63	TRUE	
SNU216LR_PC5_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	3.63%	QVLQSTQSPR	R	T	95.00%	2.57	0.235	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC5_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	3.63%	VKPPPSPTTEGPSLQPDLAPEEAAGTQRPK	K	N	95.00%	4.74	0.379	0	0	1	0	2	3,175.57	1004	1033	TRUE	
SNU216LR_PC5_02	60S ribosomal protein L31	IPI00026302	14,463.20	100.00%	1	1	1	0.01%	18.40%	NEDEDSPNKLYTLVTYVPVTTFK	R	N	95.00%	3.34	0.298	0	0	1	0	2	2,753.30	93	115	TRUE	
SNU216LR_PC5_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	1	1	1	0.01%	6.19%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.03	0.448	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC5_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.48	0.476	0	0	1	0	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC5_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	HGSDPAFAPGPR	R	G	94.90%	2.03	0.253	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC5_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	KEEASSPGAGEGPAEEGTR	K	D	95.00%	3.3	0.498	0	1	0	0	2	1,938.81	1142	1160	TRUE	
SNU216LR_PC5_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	RLSLGQGDSTEAATEER	R	G	95.00%	4	0.461	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC5_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	1	1	1	0.01%	3.09%	IPSKEEEADMSSPTQR	K	T	95.00%	2.89	0.344	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC5_02	Eukaryotic translation initiation factor 6	IPI00010105	26,598.20	100.00%	1	1	1	0.01%	8.98%	LNEAQPSTIATSMRDSLIDSLT	K	-	90.80%	3.81	0.036	0	1	0	0	2	2,443.14	224	245	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	99.80%	2	2	2	0.01%	12.60%	RGEAAGSPVPTPPRSPAQEEPTDFLSR	R	L	95.00%	3.34	0.261	0	0	1	0	2	3,089.32	107	133	TRUE	
SNU216LR_PC5_02	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	99.80%	2	2	2	0.01%	12.60%	SPPSPELQGPPSTEK	K	E	95.00%	3.31	0.465	0	1	0	0	2	1,630.74	192	206	TRUE	
SNU216LR_PC5_02	Lamin-B2	IPI00009771	69,949.40	100.00%	1	1	1	0.01%	2.26%	ATSSSSGSLSATGR	R	L	95.00%	2.23	0.292	0	1	0	0	2	1,348.57	417	430	TRUE	
SNU216LR_PC5_02	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	2	2	0.01%	20.00%	PGPTPSGTNVGSSGR	-	S	95.00%	2.29	0.251	0	1	0	0	2	1,450.63	1	15	TRUE	
SNU216LR_PC5_02	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	2	2	0.01%	20.00%	PGPTPSGTNVGSSGRSPSK	-	A	92.50%	3.79	0.0461	0	1	0	0	2	1,849.84	1	19	TRUE	
SNU216LR_PC5_02	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	2	3	3	0.02%	15.30%	EEDEENDNDNESDHDEADS	R	-	95.00%	3.38	0.647	0	1	0	0	2	2,287.69	113	131	TRUE	
SNU216LR_PC5_02	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	2	3	3	0.02%	15.30%	REEDEENDNDNESDHDEADS	K	-	95.00%	2.62	0.638	0	1	1	0	2	2,443.79	112	131	TRUE	
SNU216LR_PC5_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	1	2	2	0.01%	3.66%	VWSPLVTEEGKR	K	H	95.00%	3.09	0.323	0	1	1	0	2	1,480.72	87	98	TRUE	
SNU216LR_PC5_02	Tumor suppressor candidate 2	IPI00027248	11,942.70	100.00%	2	2	2	0.01%	25.70%	RGSMFYDEDGDLAHEFYEETIVTK	R	N	95.00%	5.69	0.358	0	0	1	0	2	2,932.24	47	70	TRUE	
SNU216LR_PC5_02	Tumor suppressor candidate 2	IPI00027248	11,942.70	100.00%	2	2	2	0.01%	25.70%	RGSMFYDEDGDLAHEFYEETIVTKNGQK	R	R	95.00%	4.05	0.332	0	0	0	1	2	3,359.46	47	74	TRUE	
SNU216LR_PC5_02	Phosphatidylethanolamine-binding protein 1	IPI00219446	20,925.70	100.00%	1	1	1	0.01%	8.06%	NRPTSISWDGLDSGK	K	L	95.00%	3.58	0.43	0	1	0	0	2	1,712.76	47	61	TRUE	
SNU216LR_PC6_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	99.80%	2	2	2	0.02%	9.97%	AEDGATPSPSNETPK	K	K	95.00%	2.14	0.283	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC6_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	99.80%	2	2	2	0.02%	9.97%	GEPAAAAAPEAGASPVEK	K	E	95.00%	1.79	0.317	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC6_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	1	2	2	0.02%	11.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	5.55	0.58	0	0	0	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC6_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	99.90%	1	1	1	0.01%	2.54%	LPSSPVYEDAASFK	R	A	95.00%	1.98	0.439	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	6	6	0.06%	14.10%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	3.52	0.569	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	6	6	0.06%	14.10%	ETPHSPGVEDAPIAK	R	V	95.00%	2.13	0.247	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	6	6	0.06%	14.10%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	3.77	0.41	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216LR_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	6	6	0.06%	14.10%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	5.76	0.5	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216LR_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	6	6	0.06%	14.10%	SNTENLSQHFR	R	K	95.00%	2.21	0.259	0	1	0	0	2	1,412.60	55	65	TRUE	
SNU216LR_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	6	6	0.06%	14.10%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	2.54	0.301	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC6_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	99.80%	1	1	1	0.01%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	3.63	0.434	0	0	1	0	2	2,051.83	68	85	TRUE	
SNU216LR_PC6_02	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	99.80%	1	1	1	0.01%	11.60%	TTSAGTGGMWR	R	F	95.00%	1.95	0.418	0	1	0	0	2	1,204.48	46	56	TRUE	
SNU216LR_PC6_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	1	1	1	0.01%	7.32%	GPSWDPFRDWYPHSR	R	L	95.00%	2.5	0.458	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC6_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	99.80%	1	2	2	0.02%	3.86%	SSSPAPADIAQTVQEDLR	K	T	95.00%	2.93	0.493	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC6_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	4	0.04%	31.30%	KEESEESDDDMGFGLFD	K	-	95.00%	3.99	0.372	0	3	0	0	2	2,029.73	99	115	TRUE	
SNU216LR_PC6_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	4	0.04%	31.30%	YVASYLLAALGGNSSPSAK	R	D	95.00%	2.17	0.331	0	1	0	0	2	1,948.94	3	21	TRUE	
SNU216LR_PC6_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	3	0.03%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	2.82	0.487	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC6_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	3	0.03%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.26	0.225	0	0	2	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC6_02	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	89.10%	5.57	0.0062	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216LR_PC6_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	4	4	0.04%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	3.96	0.59	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC6_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	4	4	0.04%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	2.87	0.53	0	1	1	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC6_02	Guanine nucleotide-binding protein G(I)/G(S)/G(O	IPI00221232	7,875.40	100.00%	1	1	1	0.01%	15.50%	TASTNNIAQAR	K	R	95.00%	2.07	0.312	0	1	0	0	2	1,226.55	4	14	TRUE	
SNU216LR_PC6_02	Septin-2	IPI00014177	41,488.20	99.80%	1	1	1	0.01%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	3.09	0.345	0	0	1	0	2	2,517.05	210	229	TRUE	
SNU216LR_PC6_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.25	0.356	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC6_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	3.99	0.502	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC6_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	3.97	0.382	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC6_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.08%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	8.48	0.643	0	0	2	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC6_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	99.80%	1	2	2	0.02%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	2.59	0.348	0	0	1	1	2	3,607.45	259	290	TRUE	
SNU216LR_PC6_02	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	1	1	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	1.67	0.418	0	1	0	0	2	1,622.85	54	68	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	7	8	9	0.08%	2.47%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.5	0.475	0	2	0	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	7	8	9	0.08%	2.47%	FKAEAPLPSPK	K	L	95.00%	1.95	0.311	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	7	8	9	0.08%	2.47%	GGVTGSPEASISGSK	K	G	95.00%	1.81	0.315	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	7	8	9	0.08%	2.47%	GHYEVTGSDDETGK	K	L	95.00%	1.98	0.34	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	7	8	9	0.08%	2.47%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	3.06	0.37	0	0	1	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	7	8	9	0.08%	2.47%	GKGGVTGSPEASISGSK	K	G	95.00%	1.55	0.366	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	7	8	9	0.08%	2.47%	SKGHYEVTGSDDETGK	K	L	95.00%	2.49	0.337	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC6_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	99.80%	2	2	2	0.02%	7.93%	SQRYSGAYGASVSDEELK	K	R	95.00%	2.26	0.241	0	0	1	0	2	2,026.88	46	63	TRUE	
SNU216LR_PC6_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	99.80%	2	2	2	0.02%	7.93%	YSGAYGASVSDEELK	R	R	95.00%	1.83	0.43	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216LR_PC6_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	6.13	0.178	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC6_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	2.09	0.502	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC6_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	3	3	0.03%	8.23%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	3.27	0.507	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC6_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	3	3	0.03%	8.23%	VVDYSQFQESDDADEDYGR	K	D	95.00%	2.32	0.455	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC6_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	3	3	3	0.03%	3.78%	DMESPTKLDVTLAK	K	D	95.00%	2.08	0.268	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC6_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	3	3	3	0.03%	3.78%	ETERASPIKMDLAPSK	K	D	81.90%	2.47	0.145	0	0	1	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC6_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	3	3	3	0.03%	3.78%	RASPSKPASAPASR	K	S	94.90%	2.19	0.212	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC6_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	99.80%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	2.93	0.469	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC6_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	1	1	1	0.01%	13.00%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	3.34	0.472	0	0	1	0	2	4,277.68	238	275	TRUE	
SNU216LR_PC6_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	1	1	1	0.01%	0.90%	TQPDGTSVPGEPASPISQR	R	L	95.00%	2.47	0.382	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC6_02	Zyxin	IPI00020513,IPI00396557	62,665.60	99.80%	2	2	2	0.02%	5.22%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.06	0.364	0	0	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC6_02	Zyxin	IPI00020513,IPI00396557	62,665.60	99.80%	2	2	2	0.02%	5.22%	SPGAPGPLTLK	R	E	95.00%	1.75	0.363	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC6_02	Histone H1.5	IPI00217468	22,450.50	99.80%	2	2	2	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	3.05	0.503	0	1	0	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC6_02	Histone H1.5	IPI00217468	22,450.50	99.80%	2	2	2	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	1.81	0.366	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216LR_PC6_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.50%	1	1	1	0.01%	1.41%	DKEVSDDEAEEK	R	E	81.00%	1.88	0.158	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216LR_PC6_02	Small acidic protein	IPI00003419	20,332.70	100.00%	2	3	3	0.03%	13.10%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	3.41	0.446	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC6_02	Small acidic protein	IPI00003419	20,332.70	100.00%	2	3	3	0.03%	13.10%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	2.41	0.208	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC6_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	2	2	0.02%	11.90%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	2.25	0.24	0	0	1	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC6_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	2	2	0.02%	11.90%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	2.29	0.338	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216LR_PC6_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.04%	8.43%	SGDETPGSEVPGDK	R	A	95.00%	2.97	0.319	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC6_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.04%	8.43%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	2.12	0.301	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216LR_PC6_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.04%	8.43%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	5.54	0.424	0	0	1	1	2	4,198.92	226	261	TRUE	
SNU216LR_PC6_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	1	1	1	0.01%	3.80%	SGPKPFSAPKPQTSPSPK	K	R	95.00%	2.01	0.264	0	0	1	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC6_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	1	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	2.98	0.516	0	0	1	0	2	2,205.10	225	244	TRUE	
SNU216LR_PC6_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.04%	4.43%	EISDDEAEEEKGEK	K	E	95.00%	1.71	0.361	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC6_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.04%	4.43%	EKEISDDEAEEEKGEK	R	E	95.00%	3.16	0.381	0	0	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC6_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.04%	4.43%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.09	0.5	0	1	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC6_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	3	3	0.03%	3.31%	GSPTSAYPER	K	K	80.30%	1.61	0.22	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC6_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	3	3	0.03%	3.31%	HGSDPAFAPGPR	R	G	95.00%	1.81	0.38	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC6_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	3	3	0.03%	3.31%	RLSLGQGDSTEAATEER	R	G	95.00%	2.52	0.315	0	0	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC6_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.04%	6.63%	ETQSPEQVK	K	S	84.90%	1.6	0.19	0	1	0	0	2	1,125.48	493	501	TRUE	
SNU216LR_PC6_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.04%	6.63%	FNDSEGDDTEETEDYR	K	Q	95.00%	2.34	0.594	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC6_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.04%	6.63%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	3.88	0.389	0	0	1	0	2	2,726.13	369	391	TRUE	
SNU216LR_PC6_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.04%	6.63%	KAEGEPQEESPLK	K	S	95.00%	2.48	0.217	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC6_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.02%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	2.22	0.283	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC6_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.02%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDMI	R	S	95.00%	3.32	0.237	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216LR_PC6_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.40%	1	1	1	0.01%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDE	K	L	87.50%	4.83	0.0305	0	0	1	0	2	4,260.69	78	116	TRUE	
SNU216LR_PC6_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	99.70%	2	2	2	0.02%	2.27%	AASAPAKESPR	K	K	89.40%	1.51	0.285	0	1	0	0	2	1,164.54	361	371	TRUE	
SNU216LR_PC6_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	99.70%	2	2	2	0.02%	2.27%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	2.18	0.37	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC6_02	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	1	0.01%	1.16%	KVVVSPTK	K	K	91.40%	1.78	0.179	0	1	0	0	2	937.5119	63	70	TRUE	
SNU216LR_PC6_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	1	1	1	0.01%	8.49%	LHQLAMQQSHFPMTHGNTGFSGIESSSPEV	K	G	95.00%	3.22	0.325	0	0	0	1	2	3,462.56	246	276	TRUE	
SNU216LR_PC6_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.03%	4.05%	RESPSPAPKPR	K	K	95.00%	2.43	0.37	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC6_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.03%	4.05%	RVSRTPEPK	R	K	95.00%	1.22	0.237	1	0	0	0	2	1,149.58	732	740	TRUE	
SNU216LR_PC6_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.03%	4.05%	VPKPEPIPEPKEPSPEK	K	N	95.00%	3.26	0.369	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216LR_PC6_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	1	1	2	0.02%	9.38%	DWEDDSDEDMSNFDR	K	F	95.00%	1.84	0.609	0	2	0	0	2	1,955.63	108	122	TRUE	
SNU216LR_PC6_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.02%	15.50%	DLLHPSPEEEK	K	R	85.90%	1.81	0.189	0	1	0	0	2	1,373.60	13	23	TRUE	
SNU216LR_PC6_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.02%	15.50%	DLLHPSPEEEKRK	K	H	95.00%	3.03	0.146	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216LR_PC6_02	palladin	IPI00292009	122,047.90	99.70%	2	2	2	0.02%	2.26%	GRSPRSPSGHPHVR	R	R	94.40%	1.87	0.244	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC6_02	palladin	IPI00292009	122,047.90	99.70%	2	2	2	0.02%	2.26%	IASDEEIQGTK	R	D	95.00%	2.08	0.267	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC6_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	99.80%	1	1	1	0.01%	0.77%	LVSPGSANETSSILVESVTR	R	S	95.00%	3.29	0.509	0	1	0	0	2	2,126.04	2452	2471	TRUE	
SNU216LR_PC6_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.80%	1	1	1	0.01%	1.09%	GSYGSDAEEEEYR	R	Q	95.00%	1.44	0.443	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC6_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.03%	8.32%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	2.54	0.548	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC6_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.03%	8.32%	QSSPSGSEQLVR	R	R	95.00%	1.85	0.282	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC6_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.03%	8.32%	SSTTK	S	G	94.70%	0.88	0.407	1	0	0	0	1	683.2049	337	341	TRUE	
SNU216LR_PC6_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	99.70%	2	2	2	0.02%	6.12%	AAESETPGKSPEK	K	K	93.40%	1.65	0.231	0	1	0	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC6_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	99.70%	2	2	2	0.02%	6.12%	ATNESEDEIPQLVPIGK	K	K	95.00%	1.86	0.269	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC6_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	1	1	1	0.01%	9.15%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	2.78	0.229	0	0	0	1	2	3,993.83	51	90	TRUE	
SNU216LR_PC6_02	Stathmin	IPI00479997	17,171.80	100.00%	4	4	6	0.06%	18.90%	ASGQAFELILSPR	R	S	95.00%	2.18	0.3	0	2	0	0	2	1,468.72	14	26	TRUE	
SNU216LR_PC6_02	Stathmin	IPI00479997	17,171.80	100.00%	4	4	6	0.06%	18.90%	ESVPEFPLSPPK	K	K	95.00%	2.21	0.426	0	1	0	0	2	1,406.66	29	40	TRUE	
SNU216LR_PC6_02	Stathmin	IPI00479997	17,171.80	100.00%	4	4	6	0.06%	18.90%	RASGQAFELILSPR	K	S	95.00%	2.74	0.256	0	0	2	0	2	1,624.82	13	26	TRUE	
SNU216LR_PC6_02	Stathmin	IPI00479997	17,171.80	100.00%	4	4	6	0.06%	18.90%	SKESVPEFPLSPPK	R	K	95.00%	1.83	0.399	0	1	0	0	2	1,621.79	27	40	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	1.97%	LSVHDMKPLDSPGR	K	R	95.00%	2.62	0.229	0	0	1	0	2	1,631.76	1881	1894	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	1.97%	SVPNTPLRPNQQSVVNSSFSELFVK	K	F	80.20%	2.53	0.158	0	0	1	0	2	2,854.41	1842	1866	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	11	0.07%	3.16%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	4.55	0.479	0	2	1	0	2	2,240.84	760	778	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	11	0.07%	3.16%	EADDDEEVDDNIPEMPSPKK	K	M	95.00%	4.18	0.584	0	2	1	0	2	2,368.94	760	779	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	11	0.07%	3.16%	SDGEAKPEPSPSPR	K	I	95.00%	2.26	0.343	0	1	0	0	2	1,533.66	205	218	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	11	0.07%	3.16%	SKSDGEAKPEPSPSPR	R	I	95.00%	3.01	0.36	0	0	1	0	2	1,748.79	203	218	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	11	0.07%	3.16%	VGMADANSPPKPLSKPR	R	T	95.00%	3.09	0.421	0	1	2	0	2	1,860.90	182	198	TRUE	
SNU216LR_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	10	0.06%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	95.00%	3.97	0.225	0	0	1	0	2	2,486.00	175	197	TRUE	
SNU216LR_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	10	0.06%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.6	0.437	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	10	0.06%	11.00%	EEDEPEERSGDETPGSEVPGDKAAEEQGDD	R	S	95.00%	4.36	0.446	0	0	1	0	2	3,870.51	153	187	TRUE	
SNU216LR_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	10	0.06%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.24	0.394	0	0	1	1	2	2,624.06	152	174	TRUE	
SNU216LR_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	10	0.06%	11.00%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	3.4	0.476	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216LR_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	9	10	0.06%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.43	0.454	0	0	1	2	2	4,198.92	226	261	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to melanoma inhibitory activit	IPI00374065,IPI00455473	213,705.70	100.00%	1	1	1	0.01%	1.42%	WSAEASGKPSPSDPGSGTATMMNSSSR	R	G	95.00%	6.39	0.0488	0	0	1	0	2	2,763.14	1716	1742	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	AFGPGLQGGSAGSPAR	K	F	95.00%	2.56	0.237	0	1	0	0	2	1,509.68	1071	1086	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	EGPYSISVLYGDEEVPRSPFK	R	V	95.00%	3.51	0.437	0	1	1	0	2	2,449.13	1515	1535	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	FADQHVPGSPFSVK	K	V	95.00%	2.86	0.276	0	1	0	0	2	1,595.73	2119	2132	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	4.91	0.478	0	1	1	0	2	2,547.16	2310	2332	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	GAGSYTIMVLFADQATPTSPIR	R	V	95.00%	4.73	0.527	0	1	1	0	2	2,376.13	841	862	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	IPEISIQDMTAQVTSPSGK	K	T	95.00%	4.47	0.436	0	1	1	0	2	2,081.98	2165	2183	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	LVSNHSLHETSSVFVDSLTK	R	A	95.00%	3.34	0.221	0	0	1	0	2	2,280.09	2520	2539	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	RLTVSSLQESGLK	R	V	95.00%	3.24	0.364	0	1	1	0	2	1,497.77	2333	2345	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	SPFSVAVSPSLDLSK	K	I	95.00%	3.79	0.147	0	1	0	0	2	1,613.78	958	972	TRUE	
SNU216LR_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	10	15	15	0.09%	6.67%	YGGPYHIGGSPFK	K	A	95.00%	2.35	0.238	0	1	0	0	2	1,459.64	2500	2512	TRUE	
SNU216LR_PC1_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	RPESPSEISPIK	K	G	95.00%	2.49	0.271	0	2	0	0	2	1,419.69	262	273	TRUE	
SNU216LR_PC1_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.14	0.227	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	3	0.02%	3.01%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	3.51	0.361	0	0	2	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	3	0.02%	3.01%	FPTTATKISPK	K	E	95.00%	2.17	0.278	0	1	0	0	2	1,270.64	414	424	TRUE	
SNU216LR_PC1_03	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	5.97%	APVHFVEPLSPTGVAGHR	K	K	95.00%	3.79	0.254	0	0	1	0	2	1,950.96	793	810	TRUE	
SNU216LR_PC1_03	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	5.97%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	5.42	0.346	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216LR_PC1_03	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	5.97%	SPQGQLDTSESKPDSFFLEPLMPAVLKPAK	R	E	95.00%	3.04	0.169	0	0	1	0	2	3,337.64	297	326	TRUE	
SNU216LR_PC1_03	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	5	5	0.03%	5.97%	VKAPVHFVEPLSPTGVAGHR	K	K	95.00%	3.33	0.337	0	0	1	1	2	2,178.12	791	810	TRUE	
SNU216LR_PC1_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	2	2	0.01%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.6	0.18	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC1_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	2	2	0.01%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.5	0.281	0	1	0	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	AAESLTAIPEPASPQLLETPIHASQIQK	R	V	95.00%	5.27	0.32	0	0	1	0	2	3,020.53	1763	1790	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	AHSEKDQPPFGDSDDSVEADK	R	S	95.00%	4.31	0.496	0	0	1	0	2	2,353.95	483	503	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	AHSEKDQPPFGDSDDSVEADKSSPGIHLER	R	S	95.00%	6.65	0.123	0	0	0	1	2	3,410.42	483	512	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	4.27	0.351	0	0	1	0	2	2,433.10	784	805	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	AQPFGFIDSDTDAEEER	R	I	95.00%	3.12	0.447	0	1	0	0	2	2,006.80	321	337	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	AQPFGFIDSDTDAEEERIPATPVVIPMK	R	K	95.00%	3.89	0.311	0	0	1	0	2	3,153.49	321	348	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	AQPFGFIDSDTDAEEERIPATPVVIPMKK	R	R	95.00%	3.63	0.287	0	0	1	1	2	3,281.58	321	349	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	DSDTDVEEEELPVENR	R	E	95.00%	3.83	0.554	0	1	0	0	2	1,955.78	452	467	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	GPGAPGLAHLQESQAGSDTDVEEGK	R	A	95.00%	3.41	0.285	0	0	1	0	2	2,530.11	360	384	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	GPGAPGLAHLQESQAGSDTDVEEGKAPQA	R	S	95.00%	4.29	0.308	0	0	1	0	2	3,463.64	360	393	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SLATMDSPPHQK	R	Q	95.00%	2.47	0.314	0	1	0	0	2	1,391.60	1814	1825	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SQPPGEDSDTDVDDDSRPPGRPAEVHLER	R	A	95.00%	3.77	0.211	0	0	0	1	2	3,253.40	292	320	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SQTTTERDSDTDVEEEELPVENR	R	E	95.00%	3.74	0.0638	0	1	1	0	2	2,839.12	445	467	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTS	R	G	95.00%	6.52	0.0345	0	0	1	0	2	3,857.87	1153	1188	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTV	R	G	93.30%	5.93	0.0361	0	0	1	0	2	3,905.87	1235	1270	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SSVKTPEPVVPTAPEPHPTTSTDQPVTPK	R	L	95.00%	3.83	0.159	0	0	0	1	2	3,104.52	1604	1632	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SSVKTPESIVPIAPELQPSTSR	R	N	95.00%	3.99	0.375	0	0	1	0	2	2,403.22	1563	1584	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SSVKTPETVVPAAPELQPSTSTDQPVTPEPTS	R	A	86.30%	5.98	0.003	0	0	1	0	2	3,513.70	1522	1554	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	SSVKTPETVVPTAPELQPSTSTDQPVTPEPTS	R	G	89.10%	5.79	0.0155	0	0	1	0	2	3,843.85	1440	1475	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	TPKPVEPAASDLEPFTPTDQSVTPEAIAQGG	K	T	94.40%	5.84	0.0312	0	0	1	0	2	3,573.70	1649	1682	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	21	23	23	0.14%	22.00%	TRQDGSQEAPEAPLSSELEPFHPKPK	K	I	95.00%	3.28	0.199	0	0	0	1	2	2,955.39	1081	1106	TRUE	
SNU216LR_PC1_03	Huntingtin	IPI00002335	347,859.30	99.70%	2	3	3	0.02%	0.48%	EKEPGEQASVPLSPK	K	K	95.00%	3.95	0.505	0	1	1	0	2	1,675.79	1189	1203	TRUE	
SNU216LR_PC1_03	Huntingtin	IPI00002335	347,859.30	99.70%	2	3	3	0.02%	0.48%	EPGEQASVPLSPK	K	K	94.10%	1.98	0.226	0	1	0	0	2	1,418.66	1191	1203	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	APEGDDFLSLHAESDGEGALQVDLGEPAPA	R	W	95.00%	5.1	0.539	0	0	1	0	2	3,781.69	440	476	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	4.41	0.464	0	1	1	0	2	2,434.09	531	554	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	ESRSPFLKPDER	R	A	95.00%	2.63	0.251	0	0	1	0	2	1,540.72	871	882	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	EVLYDSEGLSGEER	R	G	95.00%	2.19	0.318	0	1	0	0	2	1,742.66	729	742	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	5	0.331	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	GAEETSWSGEER	K	A	95.00%	2.42	0.255	0	1	0	0	2	1,417.53	958	969	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	GPSPAPASSPKR	R	E	95.00%	2.8	0.369	0	2	1	0	2	1,311.55	717	728	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.81	0.553	0	1	2	0	2	2,048.01	496	516	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	QRSPSPAPAPAPAAAAGPPTRK	R	K	95.00%	4.58	0.331	0	0	1	0	2	2,256.07	496	517	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	RRSASPPPATSSSSSSR	R	R	95.00%	3.47	0.399	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	SASPPPATSSSSSSR	R	R	95.00%	2.37	0.382	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	SPFLKPDER	R	A	94.50%	1.81	0.285	0	1	0	0	2	1,168.54	874	882	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.12	0.368	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216LR_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	14	17	19	0.12%	13.80%	VPSTPPPK	K	A	95.00%	1.65	0.354	0	1	0	0	2	902.4385	973	980	TRUE	
SNU216LR_PC1_03	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	99.80%	2	2	2	0.01%	3.91%	RSSDPALIGLSTSVSDSNFSSEEPSRK	R	N	95.00%	7.91	0.0172	0	0	1	0	2	2,933.35	142	168	TRUE	
SNU216LR_PC1_03	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	99.80%	2	2	2	0.01%	3.91%	SSSLESLQTAVAEVTLNGDIPFHRPR	K	P	95.00%	3.4	0.162	0	0	1	0	2	2,904.43	884	909	TRUE	
SNU216LR_PC1_03	Putative RNA-binding protein 16	IPI00298884,IPI00744707	140,703.00	100.00%	1	2	2	0.01%	1.57%	SSEPVKETVQTTQSPTPVEK	K	E	95.00%	4.22	0.406	0	1	1	0	2	2,252.07	606	625	TRUE	
SNU216LR_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	5	7	8	0.05%	1.89%	AAPPPPPPPPPLESSPR	K	V	95.00%	2.73	0.325	0	1	1	0	2	1,783.88	606	622	TRUE	
SNU216LR_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	5	7	8	0.05%	1.89%	RHVTLPSSPR	R	S	95.00%	2.97	0.284	0	0	1	0	2	1,229.62	2713	2722	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	5	7	8	0.05%	1.89%	SNTPMGDKDDDDDDDADEK	R	M	95.00%	5.07	0.598	0	2	1	0	2	2,177.73	2723	2741	TRUE	
SNU216LR_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	5	7	8	0.05%	1.89%	TGSTSSKEDDYESDAATIVQK	R	C	95.00%	4.44	0.0062	0	1	0	0	2	2,311.98	360	380	TRUE	
SNU216LR_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,928.70	100.00%	5	7	8	0.05%	1.89%	TSPADHGGSVGSESGGSAVDSVAGEHSVS	R	S	90.20%	6.28	0.0151	0	0	1	0	2	2,920.23	2885	2915	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.97%	AFKPEETSSNSDPPSPPVLNNSHPVPR	R	S	95.00%	4.3	0.394	0	0	1	1	2	2,980.38	641	667	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.97%	KPISDNSFSSDEEQSTGPIK	R	Y	95.00%	3.38	0.298	0	1	1	0	2	2,325.95	1295	1314	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.97%	SFLESNYFTKPNLK	R	H	95.00%	2.67	0.17	0	1	0	0	2	1,767.84	1046	1059	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	6	6	0.04%	3.97%	TSSSSPANSDVEIDGIGR	K	I	95.00%	2.6	0.176	0	1	0	0	2	1,871.80	801	818	TRUE	
SNU216LR_PC1_03	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	2	3	3	0.02%	2.10%	GRPPAEKLSPNPPK	R	L	95.00%	2.6	0.364	0	1	1	0	2	1,567.80	1369	1382	TRUE	
SNU216LR_PC1_03	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	2	3	3	0.02%	2.10%	ISPIQKPQGLDPVEILQER	R	E	95.00%	4.17	0.558	0	0	1	0	2	2,240.17	328	346	TRUE	
SNU216LR_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	7	7	0.04%	8.47%	ELPPAAAIGATSLVAAPHSSSSSPSKDSSR	R	G	82.40%	5.35	0.017	0	0	1	0	2	2,958.42	767	796	TRUE	
SNU216LR_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	7	7	0.04%	8.47%	EVSSRPSTPGLSVVSGISATSEDIPNKIEDLR	R	S	95.00%	7.03	0	0	0	1	1	2	3,420.69	594	625	TRUE	
SNU216LR_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	7	7	0.04%	8.47%	RTSPSDGAMANYESTEVMGDGESAHDSPR	K	D	95.00%	9.46	0.003	0	0	1	1	2	3,134.25	854	882	TRUE	
SNU216LR_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	7	7	0.04%	8.47%	SRSSDIVSSVR	R	R	95.00%	2.53	0.37	0	1	0	0	2	1,272.59	739	749	TRUE	
SNU216LR_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	5	7	7	0.04%	8.47%	SSSLEMTPYNTPQLSPATTPANKK	K	N	95.00%	4.53	0.161	0	0	1	0	2	2,643.24	291	314	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	2	3	3	0.02%	1.24%	LTPLPEDNSMNVDQDGDPSDR	K	M	95.00%	3.45	0.442	0	1	0	0	2	2,394.98	3197	3217	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	2	3	3	0.02%	1.24%	SSFDWLTGSSTDPLVDHTSPSSDSLLFAHK	R	R	90.10%	6.38	0.0225	0	0	1	1	2	3,314.49	2654	2683	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	ASPSKPASAPASR	R	S	95.00%	2.78	0.419	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	DGVLTLANNVTPAK	K	D	95.00%	3.31	0.337	0	1	0	0	2	1,492.74	589	602	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.1	0.219	0	0	1	2	2	4,211.12	589	627	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	DMESPTKLDVTLAK	K	D	95.00%	3.82	0.375	0	3	1	0	2	1,643.76	305	318	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	DMSPLSETEMALGK	K	D	95.00%	3.39	0.486	0	5	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.69	0.456	0	0	2	0	2	3,106.50	533	560	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	DVPPLSETEATPVPIKDMEIAQTQK	K	G	95.00%	3.52	0.395	0	0	1	0	2	2,817.36	603	627	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	DVTPPPETEVVLIK	K	N	95.00%	2.44	0.382	0	2	0	0	2	1,616.82	547	560	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	ETERASPIKMDLAPSK	K	D	95.00%	3.12	0.256	0	1	0	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	6.26	0.0537	0	0	2	0	2	3,585.63	628	661	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	6.55	0.117	0	0	1	1	2	3,697.73	628	662	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	RASPSKPASAPASR	K	S	95.00%	2.52	0.346	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	SPSTLLPK	R	K	95.00%	1.75	0.262	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	TEVALAKDMESPTKLDVTLAK	K	D	95.00%	3.79	0.461	0	0	1	0	2	2,340.18	298	318	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	15	19	29	0.18%	15.30%	VGSLDNVGHLPAGGAVK	K	I	95.00%	2.82	0.359	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	ASAVSELSPR	R	E	95.00%	1.81	0.402	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	ERSPALKSPLQSVVVR	R	R	95.00%	3.86	0.417	0	2	2	0	2	1,845.99	246	261	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	GSFSDTGLGDGK	K	M	95.00%	1.82	0.31	1	0	0	0	2	1,220.48	376	387	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	HGLAHDEMKSPR	K	E	95.00%	2.7	0.354	0	1	1	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	IDISPSTFR	R	K	95.00%	2.07	0.268	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	RIDISPSTFR	R	K	83.00%	1.67	0.219	0	0	1	0	2	1,271.61	678	687	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	SPALKSPLQSVVVR	R	R	95.00%	2.66	0.436	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	SPSELFAQHVTIVHHVK	R	E	95.00%	2.98	0.407	0	0	2	1	2	2,122.08	622	639	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	2.36	0.277	0	2	1	0	2	2,011.84	315	333	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	TDSEKPFRGSQSPK	K	R	95.00%	2.23	0.258	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	4.61	0.492	0	0	2	0	2	2,717.06	922	944	TRUE	
SNU216LR_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	17	22	0.14%	14.30%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.05	0.323	0	0	1	1	2	3,103.24	922	947	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	3	3	3	0.02%	3.25%	EKTESELKFEEDER	R	W	95.00%	1.93	0.229	0	0	1	0	2	1,848.79	272	285	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	3	3	3	0.02%	3.25%	KSPESEILSLHLLVEELR	R	L	95.00%	4.54	0.525	0	0	1	0	2	2,172.13	713	730	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	3	3	3	0.02%	3.25%	RDSDSFLNIFPEK	R	Q	95.00%	2.93	0.284	0	1	0	0	2	1,647.74	759	771	TRUE	
SNU216LR_PC1_03	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.74	0.43	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216LR_PC1_03	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	5.68	0.58	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain-containing protein 4	IPI00440727	152,216.90	100.00%	2	2	2	0.01%	3.96%	EAPSPLMIHSPQMSQFQSLTHQSPPQQNV	R	K	95.00%	4.58	0.106	0	0	1	0	2	3,677.72	1061	1092	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain-containing protein 4	IPI00440727	152,216.90	100.00%	2	2	2	0.01%	3.96%	MPDEPEEPVVAVSSPAVPPPTK	K	V	95.00%	3.19	0.44	0	1	0	0	2	2,353.10	457	478	TRUE	
SNU216LR_PC1_03	Isoform 1 of Citron Rho-interacting kinase	IPI00022465,IPI00719285	236,611.50	99.80%	2	2	3	0.02%	1.23%	RVSEVEAVLSQK	R	E	95.00%	2.89	0.303	0	1	0	0	2	1,424.71	478	489	TRUE	
SNU216LR_PC1_03	Isoform 1 of Citron Rho-interacting kinase	IPI00022465,IPI00719285	236,611.50	99.80%	2	2	3	0.02%	1.23%	SESVVSGLDSPAK	R	T	95.00%	3.27	0.356	0	2	0	0	2	1,355.61	431	443	TRUE	
SNU216LR_PC1_03	Calnexin precursor	IPI00020984	67,570.20	99.80%	1	1	1	0.01%	2.03%	AEEDEILNRSPR	K	N	95.00%	2.46	0.374	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC1_03	DNA-directed RNA polymerase, mitochondrial pre	IPI00298738	140,214.60	98.60%	1	1	1	0.01%	2.25%	QKNGFPPNFIHSLDSSHMMLTALHCYRK	K	G	95.00%	4.22	0.199	0	0	0	1	2	3,521.54	1130	1157	TRUE	
SNU216LR_PC1_03	CAD protein	IPI00301263	242,982.50	100.00%	4	6	6	0.04%	2.43%	ASDPGLPAEEPK	R	E	92.60%	1.87	0.26	0	1	0	0	2	1,290.56	1858	1869	TRUE	
SNU216LR_PC1_03	CAD protein	IPI00301263	242,982.50	100.00%	4	6	6	0.04%	2.43%	IHRASDPGLPAEEPK	R	E	95.00%	3.24	0.363	0	1	1	0	2	1,696.81	1855	1869	TRUE	
SNU216LR_PC1_03	CAD protein	IPI00301263	242,982.50	100.00%	4	6	6	0.04%	2.43%	IHRASDPGLPAEEPKEK	R	S	95.00%	3.66	0.326	0	1	1	0	2	1,953.94	1855	1871	TRUE	
SNU216LR_PC1_03	CAD protein	IPI00301263	242,982.50	100.00%	4	6	6	0.04%	2.43%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	4.73	0.396	0	0	0	1	2	4,052.11	1898	1934	TRUE	
SNU216LR_PC1_03	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	3	5	5	0.03%	1.66%	HDKSSTEEEMEIEK	K	I	95.00%	2.83	0.406	0	1	1	0	2	1,771.71	135	148	TRUE	
SNU216LR_PC1_03	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	3	5	5	0.03%	1.66%	LSGLANVVLHELSGDDDTDQNMR	R	A	95.00%	3.81	0.517	0	1	1	0	2	2,579.14	5	27	TRUE	
SNU216LR_PC1_03	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	3	5	5	0.03%	1.66%	SAAQPSTSPAEVQSLKK	R	A	95.00%	3.41	0.326	0	1	0	0	2	1,808.88	2865	2881	TRUE	
SNU216LR_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.90%	2	2	2	0.01%	2.71%	AHFNAMFQPSSPTR	R	R	95.00%	2.54	0.395	0	0	1	0	2	1,670.71	894	907	TRUE	
SNU216LR_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.90%	2	2	2	0.01%	2.71%	DLDRPESQSPK	K	R	95.00%	2.1	0.253	0	1	0	0	2	1,351.59	170	180	TRUE	
SNU216LR_PC1_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	AAVVTSPPPTTAPHK	R	E	95.00%	2.21	0.21	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC1_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	SPGSPVGEGTGSPPK	R	W	95.00%	2.58	0.422	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC1_03	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	3	3	3	0.02%	4.40%	ANEAGGQVGPEAPRPPETSPEMR	R	S	95.00%	4.05	0.429	0	1	0	0	2	2,457.09	267	289	TRUE	
SNU216LR_PC1_03	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	3	3	3	0.02%	4.40%	LRRPSVNGEPGSVPPPR	R	A	95.00%	3.12	0.237	0	0	1	0	2	1,894.96	1253	1269	TRUE	
SNU216LR_PC1_03	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	3	3	3	0.02%	4.40%	PSDVGNLDDFAESDEDEAHGPGAPEAR	K	A	95.00%	3.72	0.402	0	0	1	0	2	2,877.15	179	205	TRUE	
SNU216LR_PC1_03	Isoform 1 of Filamin-C	IPI00178352,IPI00413958	291,286.30	99.30%	1	1	1	0.01%	0.33%	LGSFGSITR	R	Q	85.50%	1.85	0.205	0	1	0	0	2	1,017.48	2231	2239	TRUE	
SNU216LR_PC1_03	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	3	3	0.02%	5.13%	NAPLPSLQNGPNTPNKPSSPPPPQQFVVQI	R	T	95.00%	5.08	0.402	0	0	0	1	2	4,154.09	793	831	TRUE	
SNU216LR_PC1_03	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	3	3	0.02%	5.13%	SGEISLPIKEEPSPISK	K	M	95.00%	2.74	0.273	0	1	1	0	2	1,890.95	873	889	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	99.80%	2	2	2	0.01%	1.16%	GQVIIISDSDDDDDER	R	I	95.00%	3.13	0.338	0	1	0	0	2	1,871.75	1011	1026	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	99.80%	2	2	2	0.01%	1.16%	KSSPFKDLMTVPESR	K	D	95.00%	3.64	0.347	0	0	1	0	2	1,801.86	909	923	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	RNA binding motif protein 15B	IPI00175136	97,208.40	99.80%	2	2	2	0.01%	2.70%	DRTPPHLLYSDR	R	D	95.00%	2.93	0.398	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216LR_PC1_03	RNA binding motif protein 15B	IPI00175136	97,208.40	99.80%	2	2	2	0.01%	2.70%	TFLEGDWTSPSK	R	S	95.00%	2.68	0.398	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	GPKPEPPGSGSPAPPR	R	R	95.00%	3.46	0.531	0	2	0	0	2	1,607.76	730	745	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	GPKPEPPGSGSPAPPRR	R	R	95.00%	3.35	0.268	0	0	1	0	2	1,763.86	730	746	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	KPSVSEEVQATPNK	R	A	95.00%	4.47	0.556	0	1	0	0	2	1,593.75	1105	1118	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	QEPGGSHGSETEDTGR	K	S	95.00%	2.39	0.432	0	1	0	0	2	1,723.66	645	660	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	SWGHESPEER	R	H	95.00%	2.34	0.264	0	1	0	0	2	1,293.49	1009	1018	TRUE	
SNU216LR_PC1_03	SCC-112 protein	IPI00303063	150,835.50	100.00%	2	2	2	0.01%	2.77%	AAVGQESPGGLEAGNAK	R	A	95.00%	3.17	0.441	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216LR_PC1_03	SCC-112 protein	IPI00303063	150,835.50	100.00%	2	2	2	0.01%	2.77%	EQSSEAAETGVSENEENPVR	R	I	95.00%	3.14	0.412	0	1	0	0	2	2,241.91	1184	1203	TRUE	
SNU216LR_PC1_03	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	3	0.02%	6.44%	HPEPVPEEGSEDELPPQVHKV	R	-	95.00%	4.2	0.388	0	0	1	0	2	2,429.10	819	839	TRUE	
SNU216LR_PC1_03	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	3	0.02%	6.44%	RESDESGESAPDEGGEGAR	R	A	95.00%	4.58	0.559	0	1	0	0	2	2,014.76	733	751	TRUE	
SNU216LR_PC1_03	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	3	0.02%	6.44%	SFSPLQPGQAPTGR	R	A	95.00%	2.54	0.382	0	1	0	0	2	1,522.71	654	667	TRUE	
SNU216LR_PC1_03	Nardilysin	IPI00243221,IPI00747052	139,288.40	99.80%	1	1	1	0.01%	1.15%	RGSLSNAGDPEIVK	R	S	95.00%	3.13	0.215	0	1	0	0	2	1,522.73	92	105	TRUE	
SNU216LR_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	6	0.04%	3.75%	FHSPSTTWSPNK	R	D	95.00%	2.19	0.208	0	1	0	0	2	1,468.63	479	490	TRUE	
SNU216LR_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	6	0.04%	3.75%	FHSPSTTWSPNKDTPQEK	R	K	95.00%	2.29	0.226	0	0	3	0	2	2,166.95	479	496	TRUE	
SNU216LR_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	6	0.04%	3.75%	SRFHSPSTTWSPNKDTPQEK	R	K	91.50%	3.65	0.109	0	0	0	1	2	2,410.08	477	496	TRUE	
SNU216LR_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	4	4	6	0.04%	3.75%	TEELIESPKLESSEGEIIQTVDR	K	Q	95.00%	5.45	0.389	0	0	1	0	2	2,682.28	287	309	TRUE	
SNU216LR_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	10	10	0.06%	8.54%	AESGDSLGSEDRDLLYSIDAYR	R	S	95.00%	3.39	0.381	0	1	1	0	2	2,512.09	656	677	TRUE	
SNU216LR_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	10	10	0.06%	8.54%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	4.56	0.449	0	1	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	10	10	0.06%	8.54%	ATSPVKSTTSITDAK	K	S	95.00%	3.12	0.52	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	10	10	0.06%	8.54%	DKSTTPGGTGIKPFLER	K	F	95.00%	4.3	0.486	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216LR_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	10	10	0.06%	8.54%	NKASPQSEFMPSK	K	G	95.00%	3.23	0.378	0	1	1	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	10	10	0.06%	8.54%	QPLSEASNQQPLSGGEEK	R	S	95.00%	3.08	0.223	0	1	0	0	2	1,978.88	42	59	TRUE	
SNU216LR_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	7	10	10	0.06%	8.54%	TQSLPVTEK	K	V	95.00%	1.95	0.268	0	1	0	0	2	1,082.51	483	491	TRUE	
SNU216LR_PC1_03	Shroom-related protein	IPI00152881	216,663.20	100.00%	3	4	4	0.02%	3.26%	DRPGSPESPLLDAPFSR	R	A	95.00%	3.43	0.344	0	1	1	0	2	1,920.89	905	921	TRUE	
SNU216LR_PC1_03	Shroom-related protein	IPI00152881	216,663.20	100.00%	3	4	4	0.02%	3.26%	PSSAHVGLRSPEASASASPHTPR	R	E	95.00%	4.8	0.404	0	0	0	1	2	2,379.12	960	982	TRUE	
SNU216LR_PC1_03	Shroom-related protein	IPI00152881	216,663.20	100.00%	3	4	4	0.02%	3.26%	SPFIEEQLHTVLEKSPENSPPVKPK	K	H	95.00%	5.31	0.405	0	0	1	0	2	2,990.43	424	448	TRUE	
SNU216LR_PC1_03	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	99.80%	2	2	2	0.01%	2.76%	ALVVPEPEPDSDSNQER	K	K	95.00%	3.29	0.507	0	1	0	0	2	1,961.85	126	142	TRUE	
SNU216LR_PC1_03	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	99.80%	2	2	2	0.01%	2.76%	KAQESQKEMK	K	L	95.00%	1.56	0.23	1	0	0	0	2	1,286.58	637	646	TRUE	
SNU216LR_PC1_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	4	4	4	0.02%	3.70%	GGDVSPSPYSSSSWR	R	R	95.00%	3.2	0.389	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216LR_PC1_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	4	4	4	0.02%	3.70%	HSSISPSTLTLK	R	S	95.00%	2.25	0.209	0	1	0	0	2	1,430.63	435	446	TRUE	
SNU216LR_PC1_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	4	4	4	0.02%	3.70%	IEHAPSPSSGGTLK	K	N	95.00%	2.82	0.347	0	1	0	0	2	1,460.68	520	533	TRUE	
SNU216LR_PC1_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	4	4	4	0.02%	3.70%	KSPSPAGGGSSPYSR	R	R	82.00%	1.69	0.243	0	1	0	0	2	1,674.60	339	353	TRUE	
SNU216LR_PC1_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	4	4	0.02%	16.00%	AEDGATPSPSNETPKK	K	K	95.00%	2.45	0.261	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC1_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	4	4	0.02%	16.00%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.58	0.42	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC1_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	4	4	0.02%	16.00%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.53	0.374	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC1_03	dystonin isoform 1	IPI00074148	629,787.60	100.00%	3	3	3	0.02%	0.73%	AMVDSQQKSPVKR	R	R	95.00%	2.5	0.255	0	0	1	0	2	1,569.75	1374	1386	TRUE	
SNU216LR_PC1_03	dystonin isoform 1	IPI00074148	629,787.60	100.00%	3	3	3	0.02%	0.73%	LLDPEDVDVSSPDEK	R	S	95.00%	3.6	0.307	0	1	0	0	2	1,737.75	227	241	TRUE	
SNU216LR_PC1_03	dystonin isoform 1	IPI00074148	629,787.60	100.00%	3	3	3	0.02%	0.73%	QKSFSEDVISHK	R	G	95.00%	2.74	0.298	0	0	1	0	2	1,484.68	1880	1891	TRUE	
SNU216LR_PC1_03	ATP(GTP)-binding protein	IPI00102575	207,577.10	99.80%	2	2	2	0.01%	1.90%	AADPVPSFDESSQDTSEK	K	S	95.00%	3.15	0.319	0	1	0	0	2	1,989.80	806	823	TRUE	
SNU216LR_PC1_03	ATP(GTP)-binding protein	IPI00102575	207,577.10	99.80%	2	2	2	0.01%	1.90%	SGYISESENSEISQQVR	K	F	95.00%	2.79	0.187	0	1	0	0	2	1,992.85	302	318	TRUE	
SNU216LR_PC1_03	CRSP complex subunit 2	IPI00297191	160,666.50	99.80%	2	2	2	0.01%	3.99%	MPGMSPANPSLHSPVPDASHSPR	R	A	95.00%	4.13	0.406	0	0	1	0	2	2,449.08	1124	1146	TRUE	
SNU216LR_PC1_03	CRSP complex subunit 2	IPI00297191	160,666.50	99.80%	2	2	2	0.01%	3.99%	SVNEDDNPPSPIGGDMMDSLISQLQPPPQ	R	Q	95.00%	3.43	0.289	0	0	1	0	2	3,883.76	977	1011	TRUE	
SNU216LR_PC1_03	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	3	3	0.02%	5.97%	AMTLSPQEEVAAGQMASSSR	R	S	95.00%	3.94	0.343	0	1	0	0	2	2,130.92	313	332	TRUE	
SNU216LR_PC1_03	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	3	3	0.02%	5.97%	ILSPSMASK	R	L	95.00%	1.5	0.335	0	1	0	0	2	1,013.47	69	77	TRUE	
SNU216LR_PC1_03	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	3	3	0.02%	5.97%	VSGSPEQAVEENLSSYSLDRR	K	V	95.00%	2.89	0.204	0	0	1	0	2	2,403.08	174	194	TRUE	
SNU216LR_PC1_03	claspin	IPI00160348,IPI00744511,IP	151,097.60	100.00%	3	3	3	0.02%	3.44%	NFVFHTLSPVK	R	A	90.30%	2.23	0.15	0	1	0	0	2	1,368.67	1282	1292	TRUE	
SNU216LR_PC1_03	claspin	IPI00160348,IPI00744511,IP	151,097.60	100.00%	3	3	3	0.02%	3.44%	NFVFHTLSPVKAEAAK	R	E	95.00%	3.12	0.157	0	0	1	0	2	1,838.92	1282	1297	TRUE	
SNU216LR_PC1_03	claspin	IPI00160348,IPI00744511,IP	151,097.60	100.00%	3	3	3	0.02%	3.44%	NIDDASQMDLFHRDSDDDQTEEQLDESEA	K	W	95.00%	4.93	0.499	0	0	1	0	2	3,604.43	1142	1171	TRUE	
SNU216LR_PC1_03	Isoform 2 of Histone-lysine N-methyltransferase,	IPI00170643,IPI00289034	184,858.00	98.60%	1	1	1	0.01%	0.98%	VAGPADAPMDSGAEEEK	K	A	95.00%	3.21	0.362	0	0	1	0	2	1,753.70	364	380	TRUE	
SNU216LR_PC1_03	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	1	1	2	0.01%	2.58%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	4.48	0.25	0	0	2	0	2	3,284.37	341	369	TRUE	
SNU216LR_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.80%	2	3	3	0.02%	2.64%	HLYISSSNPDLITR	R	R	95.00%	2.74	0.415	0	1	1	0	2	1,695.81	584	597	TRUE	
SNU216LR_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.80%	2	3	3	0.02%	2.64%	RNSIEVAGLSHGLEGLR	K	L	95.00%	4.43	0.462	0	0	1	0	2	1,887.94	635	651	TRUE	
SNU216LR_PC1_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	3	3	0.02%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	4.28	0.402	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216LR_PC1_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	3	3	0.02%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	3.83	0.389	0	1	1	0	2	2,128.94	8	26	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	ASPGHSPHYFAASSPTSPNALPPAR	R	K	95.00%	3.57	0.281	0	0	1	0	2	2,597.19	1851	1875	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	DLAVPAALTPR	R	A	95.00%	2.8	0.467	0	0	1	0	2	1,203.61	1840	1850	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	KASPPSGLWSPAYASH	R	-	95.00%	3.36	0.38	0	0	1	0	2	1,735.78	1876	1891	TRUE	
SNU216LR_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.57%	KISGTTALQEALK	R	E	95.00%	2.78	0.327	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216LR_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.57%	KISGTTALQEALKEK	R	Q	95.00%	3.95	0.479	0	0	1	0	2	1,696.89	346	360	TRUE	
SNU216LR_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.57%	SPSASSLSSMSSVASSVSSR	R	P	95.00%	4.58	0.0623	0	1	0	0	2	1,980.86	310	329	TRUE	
SNU216LR_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.57%	TASESISNLSEAGSIK	K	K	95.00%	3.11	0.318	0	1	0	0	2	1,673.76	191	206	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.42	0.483	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	TGSESSQTGTSTTSSR	R	N	83.50%	3.1	0.045	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp434A112	IPI00186028,IPI00748953	110,490.70	99.80%	2	2	2	0.01%	2.58%	KQQHVISTEEGDMMETNSTDDEK	R	S	95.00%	4.18	0.42	0	0	1	0	2	2,812.07	840	862	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp434A112	IPI00186028,IPI00748953	110,490.70	99.80%	2	2	2	0.01%	2.58%	KQQHVISTEEGDMMETNSTDDEKSTAK	R	S	95.00%	6.93	0.0838	0	0	1	0	2	3,199.28	840	866	TRUE	
SNU216LR_PC1_03	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	KQSVFSAPSLSAGASAAEPLDR	R	S	95.00%	4.55	0.518	0	1	0	0	2	2,269.09	932	953	TRUE	
SNU216LR_PC1_03	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	RSIQGVGHMMSTMVLSR	R	K	95.00%	3.28	0.403	0	0	1	0	2	1,969.92	915	931	TRUE	
SNU216LR_PC1_03	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	SIQGVGHMMSTMVLSR	R	K	95.00%	3.84	0.412	0	1	1	0	2	1,813.82	916	931	TRUE	
SNU216LR_PC1_03	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	5	5	0.03%	1.91%	VASFSIPGSSSR	R	Y	95.00%	2.16	0.402	0	1	0	0	2	1,274.58	1830	1841	TRUE	
SNU216LR_PC1_03	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	3	3	3	0.02%	2.93%	KITPPSSPHSLTSTLVSLGHEEALEMAGSK	R	N	95.00%	4.96	0.0795	0	0	1	0	2	3,184.56	1057	1086	TRUE	
SNU216LR_PC1_03	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	3	3	3	0.02%	2.93%	MSPSGGAPQTTPTLR	K	S	95.00%	2.65	0.327	0	1	0	0	2	1,580.71	1153	1167	TRUE	
SNU216LR_PC1_03	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	3	3	3	0.02%	2.93%	TSSPLFNK	R	A	92.60%	1.86	0.22	0	1	0	0	2	973.4391	126	133	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	CDNA FLJ12811 fis, clone NT2RP2002475	IPI00384909	59,978.60	98.50%	1	1	1	0.01%	2.39%	VPKSPEHSAEPIR	R	T	95.00%	2.64	0.24	0	0	1	0	2	1,526.74	324	336	TRUE	
SNU216LR_PC1_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	99.80%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	4.58	0.458	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216LR_PC1_03	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.80%	2	3	3	0.02%	3.62%	EGVNQPAAVVMEDSSPHEALR	K	C	95.00%	4.5	0.407	0	0	1	0	2	2,316.03	625	645	TRUE	
SNU216LR_PC1_03	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.80%	2	3	3	0.02%	3.62%	EKPDSDDDLDIASLVTAK	R	L	95.00%	4.32	0.597	0	1	1	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.80%	2	2	2	0.01%	1.60%	AGDPGEMPQSPTGLGQPK	R	R	95.00%	3	0.342	0	1	0	0	2	1,862.80	1391	1408	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.80%	2	2	2	0.01%	1.60%	QPSSPSHNTNLR	R	A	95.00%	1.92	0.277	0	1	0	0	2	1,417.62	135	146	TRUE	
SNU216LR_PC1_03	Protein C21orf5	IPI00294653	258,230.60	99.80%	1	1	1	0.01%	0.87%	SEDSGIGLSASSPELSEHLR	K	V	95.00%	3.13	0.252	0	0	1	0	2	2,150.96	586	605	TRUE	
SNU216LR_PC1_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	2	2	0.01%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	6.2	0.535	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216LR_PC1_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	2	2	0.01%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	91.70%	4.68	0.0741	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	1	2	2	0.01%	1.45%	HLSPYATLTVGDSSHK	K	T	95.00%	4.54	0.439	0	1	1	0	2	1,792.83	818	833	TRUE	
SNU216LR_PC1_03	Isoform 1 of Trinucleotide repeat-containing 6B p	IPI00385511	186,687.20	99.20%	1	1	1	0.01%	2.05%	GIQNIDPESDPYVTPGSVLGGTATSPIVDTDI	K	D	84.70%	5.84	0.0041	0	0	1	0	2	3,842.85	1414	1449	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	ALQHTESPSETNKPHSK	K	S	95.00%	3.02	0.361	0	0	0	1	2	1,970.90	94	110	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	DDSLDLSPQGR	R	L	95.00%	2.45	0.232	0	1	0	0	2	1,282.53	985	995	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	ESTDDESNPLGR	R	A	95.00%	2.84	0.354	0	1	0	0	2	1,399.54	1375	1386	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	HLAESESLLTSPPK	K	A	95.00%	2.39	0.3	0	1	1	0	2	1,588.76	932	945	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	KRSESPPAELPSLR	K	R	95.00%	2.87	0.319	0	0	1	0	2	1,726.79	308	321	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	RSESPPAELPSLR	K	R	95.00%	3.43	0.308	0	0	1	0	2	1,518.73	309	321	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	SESPPAELPSLR	R	R	95.00%	2.38	0.369	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216LR_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	9	9	0.06%	4.17%	YSPPRDDDKVDNQAK	K	S	95.00%	2.49	0.193	0	0	1	0	2	1,827.79	1015	1029	TRUE	
SNU216LR_PC1_03	TPR domain, ankyrin-repeat and coiled-coil-conta	IPI00173946	202,247.00	99.60%	2	2	2	0.01%	2.85%	AESSAGDGPVPYSQGSSSLIMPRPNSVAAT	K	L	95.00%	5.39	0.0524	0	0	1	0	2	3,416.57	288	321	TRUE	
SNU216LR_PC1_03	TPR domain, ankyrin-repeat and coiled-coil-conta	IPI00173946	202,247.00	99.60%	2	2	2	0.01%	2.85%	HPASLTSSGSSGSPSSSIK	R	M	91.60%	3.66	0.0363	0	1	0	0	2	1,853.83	1656	1674	TRUE	
SNU216LR_PC1_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	4.20%	GNFSPLELDNVLLK	K	N	95.00%	2.68	0.242	0	1	0	0	2	1,638.81	187	200	TRUE	
SNU216LR_PC1_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	4.20%	HLNSSQPSGFGPANSLEDVVR	K	L	95.00%	5.79	0.481	0	0	1	0	2	2,291.05	485	505	TRUE	
SNU216LR_PC1_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	4.20%	SLFFSSKEDIHTSESESK	K	I	95.00%	4.17	0.347	0	0	1	0	2	2,137.93	925	942	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	5	5	0.03%	4.76%	IGDLQAAIEDEMESDENEDLINSLQDMVTK	R	Y	95.00%	4.29	0.465	0	0	1	0	2	3,445.49	1932	1961	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	5	5	0.03%	4.76%	NKLEGDSDVDSELEDRVDGVK	K	S	95.00%	4.52	0.359	0	0	1	0	2	2,399.06	1967	1987	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	5	5	0.03%	4.76%	SLAPDRSDDEHDPLDNTSRPR	K	Y	95.00%	4.02	0.352	0	0	1	1	2	2,473.07	2017	2037	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	4	5	5	0.03%	4.76%	SRDESASETSTPSEHSAAPSPQVEVR	R	T	95.00%	3.41	0.359	0	0	0	1	2	2,821.23	145	170	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC55215	IPI00019447,IPI00477345	102,390.30	100.00%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	1.98	0.34	0	1	0	0	2	1,170.54	41	50	TRUE	
SNU216LR_PC1_03	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	3	3	3	0.02%	3.68%	LLVDVDESTLSPEEQKER	K	K	95.00%	3.24	0.201	0	0	1	0	2	2,167.02	478	495	TRUE	
SNU216LR_PC1_03	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	3	3	3	0.02%	3.68%	SRWDETPASQMGGSTPVLTPGK	K	T	95.00%	4.09	0.47	0	0	1	0	2	2,382.08	336	357	TRUE	
SNU216LR_PC1_03	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	3	3	3	0.02%	3.68%	TMIISPER	R	L	91.20%	1.95	0.222	0	1	0	0	2	1,026.47	125	132	TRUE	
SNU216LR_PC1_03	Ras GTPase-activating-like protein IQGAP1	IPI00009342	189,258.60	100.00%	1	2	2	0.01%	0.91%	SKSVKEDSNLTLQEK	K	K	95.00%	3.47	0.35	0	1	1	0	2	1,785.86	1441	1455	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	9	0.06%	3.73%	DTEQKELDQDMVTEDEDDPGSHKR	K	G	95.00%	5.03	0.487	0	0	1	1	2	2,897.18	720	743	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	9	0.06%	3.73%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	4.06	0.387	0	1	2	0	2	2,295.91	725	743	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	9	0.06%	3.73%	KRQSPEPSPVTLGR	R	R	95.00%	2.96	0.141	0	0	2	0	2	1,711.79	1411	1424	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	9	0.06%	3.73%	LGLHVTPSNVDQVSTPPAAK	K	K	95.00%	3.61	0.426	0	0	1	0	2	2,111.05	1534	1553	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	5	7	9	0.06%	3.73%	RQSPEPSPVTLGR	K	R	95.00%	2.6	0.287	0	0	1	0	2	1,503.73	1412	1424	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	3.71%	KSLSGSPLK	K	V	86.30%	2.1	0.158	0	1	0	0	2	996.5127	344	352	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	3.71%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.85	0.458	0	2	0	0	2	1,868.75	1461	1477	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	3.71%	NSKSPEEHLEEMMK	K	M	95.00%	4.12	0.376	0	1	1	0	2	1,768.73	358	371	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	3.71%	SKTDNSSLSSPLNPK	K	L	95.00%	2.93	0.292	0	1	0	0	2	1,654.77	321	335	TRUE	
SNU216LR_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	2.94%	EKVASDTEEADR	R	T	95.00%	2.46	0.243	0	1	0	0	2	1,429.58	652	663	TRUE	
SNU216LR_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	2.94%	TQEISRPNSPSEGEGESSDSR	K	S	85.40%	3.76	0.0805	0	0	1	0	2	2,328.96	671	691	TRUE	
SNU216LR_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	2.94%	TSPINEDIR	R	S	95.00%	1.78	0.328	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216LR_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	2.94%	VASDTEEADR	K	T	95.00%	2.61	0.523	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216LR_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	2.94%	VASDTEEADRTSSK	K	K	95.00%	2.62	0.346	0	1	0	0	2	1,575.65	654	667	TRUE	
SNU216LR_PC1_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	4	4	0.02%	1.49%	RDSDGVDGFEAEGK	R	K	95.00%	3.41	0.407	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216LR_PC1_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	4	4	0.02%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.78	0.449	0	1	0	0	2	1,689.71	1052	1066	TRUE	
SNU216LR_PC1_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	4	4	0.02%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	3.93	0.439	0	1	1	0	2	1,717.72	1051	1065	TRUE	
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	2	3	3	0.02%	1.50%	DEYQTSPPKVVEIGHQR	R	Q	95.00%	3.23	0.319	0	0	1	0	2	2,062.96	436	452	TRUE	
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	2	3	3	0.02%	1.50%	EVEEELATSGGQQSPTGEQIPQFQQR	K	Q	95.00%	3.12	0.244	0	0	1	0	2	2,825.26	4124	4148	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	2	3	3	0.02%	1.50%	LRESPGSEQTPFMTAPEGK	K	G	95.00%	4.16	0.465	0	1	1	0	2	2,141.96	1763	1781	TRUE	
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	2	3	3	0.02%	1.50%	QGSFSEDVISHK	K	G	95.00%	2.76	0.428	0	1	1	0	2	1,413.60	2360	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	2	3	3	0.02%	1.50%	RQGSFSEDVISHK	K	G	95.00%	2.74	0.227	0	0	1	0	2	1,569.71	2359	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	2	3	3	0.02%	1.50%	SMDAMSSPTK	K	T	95.00%	2.58	0.52	0	1	0	0	2	1,134.42	2925	2934	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	2	3	3	0.02%	1.50%	SMDAMSSPTKTETVK	K	A	95.00%	4.24	0.0728	0	2	0	0	2	1,692.72	2925	2939	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216LR_PC1_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	3	4	0.02%	4.47%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	1.71	0.399	0	0	1	0	2	2,580.79	423	442	TRUE	
SNU216LR_PC1_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	3	4	0.02%	4.47%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.69	0.1	0	1	0	0	2	2,020.86	302	320	TRUE	
SNU216LR_PC1_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	3	4	0.02%	4.47%	SSLGQSASETEEDTVSVSKK	R	E	95.00%	3.11	0.299	0	2	0	0	2	2,148.95	302	321	TRUE	
SNU216LR_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	6	9	11	0.07%	2.35%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.92	0.473	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	6	9	11	0.07%	2.35%	AQLEPVASPAK	K	K	82.30%	1.68	0.158	1	0	0	0	2	1,190.58	1428	1438	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	6	9	11	0.07%	2.35%	ARSDEGQLSPATR	R	G	95.00%	3.48	0.4	0	0	1	0	2	1,467.66	712	724	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	6	9	11	0.07%	2.35%	GYYSPYSVSGSGSTAGSR	K	T	88.80%	3.64	0.0081	0	1	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	6	9	11	0.07%	2.35%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	4.78	0.19	0	1	1	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	6	9	11	0.07%	2.35%	SSSVGSSSSYPISPAVSR	R	T	95.00%	2.91	0.348	0	3	1	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	AAFGISDSYVDGSSFDPQR	R	R	95.00%	3.6	0.326	0	1	0	0	2	2,098.88	137	155	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	AGMSSNQSISSPVLDAVPR	K	T	95.00%	3.55	0.357	0	3	1	0	2	1,995.92	1394	1412	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	AGMSSNQSISSPVLDAVPRTPSR	K	E	95.00%	3.69	0.292	0	1	1	0	2	2,437.15	1394	1416	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	AGMSSNQSISSPVLDAVPRTPSRER	K	S	95.00%	4.03	0.125	0	0	1	0	2	2,802.26	1394	1418	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	DGLPRTPSR	K	R	95.00%	1.87	0.327	0	1	0	0	2	1,078.50	1429	1437	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	DKFSPFPVQDRPESSLVFK	K	D	95.00%	3.62	0.263	0	0	1	0	2	2,303.11	1185	1203	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	DRSPPKSPEK	R	L	95.00%	3.04	0.29	0	0	1	0	2	1,220.57	402	411	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	4.17	0.374	0	0	2	0	2	2,259.04	1316	1334	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	ENSFGSPLEFR	R	N	95.00%	2.3	0.334	0	2	0	0	2	1,362.57	1324	1334	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	EQNSALPTSSQDEELMEVVEK	K	S	95.00%	4.55	0.46	0	1	1	0	2	2,443.06	1224	1244	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	GEFSASPMLK	R	S	95.00%	1.69	0.296	0	1	0	0	2	1,146.49	1119	1128	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	5.4	0.0244	0	2	0	0	2	2,715.18	304	329	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	GPSPEGSSSTESSPEHPPK	R	S	95.00%	3.06	0.295	0	1	1	0	2	1,973.81	1646	1664	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.49	0.383	0	3	3	0	2	2,136.83	433	451	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.93	0.509	0	1	3	0	2	2,932.38	374	401	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	HSLSGSSPGMK	R	D	95.00%	1.96	0.272	0	1	0	0	2	1,167.49	1457	1467	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	HSLSGSSPGMKDIPR	R	T	95.00%	2.86	0.264	0	1	1	0	2	1,648.75	1457	1471	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	MALPPQEDATASPPR	K	Q	95.00%	3.29	0.427	0	4	3	0	2	1,660.74	1168	1182	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	MALPPQEDATASPPRQK	K	D	95.00%	2.72	0.194	0	0	1	0	2	1,916.89	1168	1184	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	NHSGSRTPPVALNSSR	R	M	95.00%	2.81	0.279	0	0	1	0	2	1,759.82	2098	2113	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	QGSITSPQANEQSVTPQR	R	R	95.00%	3.98	0.475	0	2	0	0	2	2,007.91	852	869	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	QGSITSPQANEQSVTPQRR	R	S	95.00%	2.62	0.348	0	1	1	0	2	2,164.01	852	870	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	QPSSPYEDKDKDK	K	K	95.00%	3.17	0.341	0	0	1	0	2	1,616.68	330	342	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	RGEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	3.86	0.128	0	1	2	0	2	2,951.25	303	329	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	RSPSVSSPEPAEK	R	S	95.00%	2.86	0.261	0	1	0	0	2	1,530.62	1726	1738	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SAHATAPVNIAGSR	R	T	95.00%	2.51	0.306	0	1	0	0	2	1,431.67	2343	2356	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SGAGSSPETKEQNSALPTSSQDEELMEVVEI	R	S	85.40%	5.96	0.0016	0	0	1	0	2	3,344.47	1214	1244	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SGSSQELDVKPSASPQER	R	S	95.00%	3.91	0.434	0	5	2	0	2	1,981.89	1539	1556	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SLSYSPVER	R	R	95.00%	1.96	0.271	0	1	0	0	2	1,197.46	2690	2698	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SPSSPELNNK	R	C	87.30%	2.05	0.18	0	1	0	0	2	1,152.49	1499	1508	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SPSVSSPEPAEK	R	S	95.00%	2.11	0.289	0	1	0	0	2	1,294.56	1727	1738	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SRSGSSQELDVKPSASPQER	R	S	95.00%	3.21	0.238	0	0	1	0	2	2,225.02	1537	1556	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SRSPSSPELNNK	R	C	95.00%	2.9	0.365	0	1	0	0	2	1,395.63	1497	1508	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SRSSSPVTELASR	R	S	92.70%	2.18	0.22	0	1	0	0	2	1,456.68	1099	1111	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SRTPPSAPSQSR	R	M	95.00%	2.61	0.32	0	0	1	0	2	1,350.62	2407	2418	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SRTSPAPWK	R	R	94.30%	2.38	0.176	0	1	0	0	2	1,109.51	1854	1862	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SSGHSSSELSPDAVEK	R	A	95.00%	4.06	0.0219	0	1	0	0	2	1,776.67	1378	1393	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SSTGPEPPAPTPLLAER	R	H	95.00%	2.13	0.287	0	1	0	0	2	1,799.86	357	373	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	SSTPPGESYFGVSSLQLK	K	G	81.70%	3.24	0.0255	0	1	0	0	2	1,963.91	1041	1058	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	THTTALAGRSPSPASGR	K	R	95.00%	2.96	0.343	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	TPAAAAAMNLASPR	R	T	95.00%	3.72	0.452	0	1	0	0	2	1,421.66	2261	2274	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	TPMSVLQQAGGSMMDGPGPR	R	I	95.00%	2.75	0.245	0	1	0	0	2	2,096.90	2144	2163	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	TPQAPASANLVGPR	R	S	95.00%	3.29	0.465	0	1	0	0	2	1,458.71	2329	2342	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	TSPAPWK	R	R	80.40%	1.37	0.325	0	1	0	0	2	866.3809	1856	1862	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	TSVPENHAQSR	R	I	93.70%	2.03	0.231	0	0	1	0	2	1,305.56	2170	2180	TRUE	
SNU216LR_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	46	57	80	0.49%	20.30%	VKAQTPPGPSLSGSK	K	S	95.00%	2.81	0.225	0	0	1	0	2	1,533.77	999	1013	TRUE	
SNU216LR_PC1_03	E1A-associated protein p300	IPI00020985	264,138.50	99.80%	1	2	2	0.01%	1.04%	TEIKEEEDQPSTSATQSSPAPGQSK	K	K	95.00%	4.3	0.0297	0	1	1	0	2	2,712.19	1021	1045	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	4	5	5	0.03%	1.19%	HEDEQALLDQNSQTPPPSPFSVQAFNK	R	G	95.00%	6.06	0.506	0	0	1	0	2	3,104.40	2632	2658	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	4	5	5	0.03%	1.19%	SKSDSYTLDPDTLR	R	K	95.00%	3.16	0.417	0	1	1	0	2	1,677.74	2831	2844	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	4	5	5	0.03%	1.19%	SKSDSYTLDPDTLRK	R	K	95.00%	3.07	0.215	0	0	1	0	2	1,805.83	2831	2845	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	4	5	5	0.03%	1.19%	SLSPNHNTLQTLK	R	S	95.00%	2.35	0.289	0	0	1	0	2	1,532.75	2749	2761	TRUE	
SNU216LR_PC1_03	Protein capicua homolog	IPI00045360	163,789.70	100.00%	3	3	3	0.02%	2.55%	AASEDMTSDEER	R	M	95.00%	2.19	0.412	0	1	0	0	2	1,500.46	429	440	TRUE	
SNU216LR_PC1_03	Protein capicua homolog	IPI00045360	163,789.70	100.00%	3	3	3	0.02%	2.55%	SSPPLPPPAEER	R	T	92.70%	2.04	0.202	0	1	0	0	2	1,356.62	1245	1256	TRUE	
SNU216LR_PC1_03	Protein capicua homolog	IPI00045360	163,789.70	100.00%	3	3	3	0.02%	2.55%	SSSEAKPTSLGLAGGHK	K	E	95.00%	3.45	0.243	0	0	1	0	2	1,706.81	277	293	TRUE	
SNU216LR_PC1_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	KTPLALAGSPTPK	K	N	95.00%	2.71	0.372	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216LR_PC1_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	NPEDKSPQLSLSPRPASPK	K	A	95.00%	3.64	0.114	0	0	1	0	2	2,208.01	919	937	TRUE	
SNU216LR_PC1_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	TPLALAGSPTPK	K	N	89.40%	2.3	0.144	0	1	0	0	2	1,232.63	907	918	TRUE	
SNU216LR_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	7	8	8	0.05%	6.11%	DSPSAGGPVGQLEPIPIPAPASPGTRPTLK	R	D	95.00%	6.69	0.0671	0	0	1	0	2	2,987.52	506	535	TRUE	
SNU216LR_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	7	8	8	0.05%	6.11%	GSNPLDGRDSPSAGGPVGQLEPIPIPAPASP	R	D	95.00%	3.8	0.444	0	0	0	1	2	3,783.91	498	535	TRUE	
SNU216LR_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	7	8	8	0.05%	6.11%	MGAQQDDGSDAPPGSPDWAGDVTR	R	G	95.00%	4.57	0.545	0	0	1	0	2	2,509.99	605	628	TRUE	
SNU216LR_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	7	8	8	0.05%	6.11%	RPSADSESPGTPSPDGAAWEPPAR	R	E	95.00%	4.14	0.221	0	0	1	0	2	2,515.09	140	163	TRUE	
SNU216LR_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	7	8	8	0.05%	6.11%	SLSDPIPQR	R	H	95.00%	2.2	0.227	0	1	0	0	2	1,092.51	733	741	TRUE	
SNU216LR_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	7	8	8	0.05%	6.11%	SLSNPDIASETLTLLSFLR	K	S	95.00%	4.83	0.534	0	1	1	0	2	2,157.08	461	479	TRUE	
SNU216LR_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	7	8	8	0.05%	6.11%	SPSFGAGEGLLR	R	S	95.00%	1.88	0.288	0	1	0	0	2	1,270.58	418	429	TRUE	
SNU216LR_PC1_03	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.80%	1	2	2	0.01%	1.63%	ASPSPQPSSQPLQIHR	R	Q	95.00%	4.22	0.449	0	1	1	0	2	1,809.86	143	158	TRUE	
SNU216LR_PC1_03	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	3	4	4	0.02%	1.89%	DSSIIDPGTEQDLPSPENSSVK	R	E	95.00%	4.19	0.309	0	1	1	0	2	2,395.06	3392	3413	TRUE	
SNU216LR_PC1_03	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	3	4	4	0.02%	1.89%	EVLTPTSTSDNETR	R	D	92.00%	2.28	0.191	0	1	0	0	2	1,709.67	3378	3391	TRUE	
SNU216LR_PC1_03	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	3	4	4	0.02%	1.89%	GPENPQVEVLSEEEGEEEEEEEDILSLAEEK	K	Y	95.00%	4.68	0.378	0	0	1	0	2	3,594.53	2478	2508	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 3 subunit 1	IPI00029012	166,574.90	100.00%	1	1	1	0.01%	0.80%	RVPPPALSRDR	R	E	95.00%	2.11	0.252	0	0	1	0	2	1,343.69	1329	1339	TRUE	
SNU216LR_PC1_03	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.17%	QIDSSEEDDEEDYDNDKR	R	S	95.00%	3.22	0.553	0	1	0	0	2	2,476.82	212	230	TRUE	
SNU216LR_PC1_03	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.17%	RQIDSSEEDDEEDYDNDKR	K	S	95.00%	3.69	0.54	0	0	1	0	2	2,632.92	211	230	TRUE	
SNU216LR_PC1_03	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	100.00%	3	3	3	0.02%	3.12%	FSFRSQEDLNEPIKR	K	D	90.90%	3.19	0.161	0	0	1	0	2	1,945.92	1125	1139	TRUE	
SNU216LR_PC1_03	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	100.00%	3	3	3	0.02%	3.12%	NSSNTSVGSPSNTIGR	K	T	95.00%	3.56	0.0637	0	1	0	0	2	1,657.72	1055	1070	TRUE	
SNU216LR_PC1_03	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	100.00%	3	3	3	0.02%	3.12%	RQSSGSATNVASTPDNR	R	G	93.70%	3.31	0.0621	0	1	0	0	2	1,827.80	644	660	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ADIDVSGPKVDVDVPDVNIEGPDAK	K	L	95.00%	4.25	0.296	0	0	1	0	2	2,644.24	1750	1774	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	4.41	0.488	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	AEAPLPSPK	K	L	95.00%	2.21	0.419	1	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	AGLRVSAPEVSVGHK	K	G	95.00%	3.43	0.375	0	0	1	0	2	1,586.81	80	94	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	APDVDVNIAGPDAALKVDVKSPK	K	T	95.00%	6.96	0.508	0	0	1	0	2	2,399.22	2128	2150	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.78	0.458	0	4	3	0	2	1,812.79	2819	2836	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.44	0.388	0	1	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	94.80%	4.2	0.0083	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	FGFGAKSPK	K	A	95.00%	2.12	0.278	0	1	0	0	2	1,018.48	2051	2059	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	FKAEAPLPSPK	K	L	95.00%	2.46	0.207	1	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	FKAEAPLPSPKLEGELQAPDLELSLPAIHVEG	K	A	95.00%	5.93	0.585	0	0	0	1	2	3,945.07	2173	2208	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GGVTGSPEASISGSK	K	G	95.00%	2.25	0.306	1	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.53	0.354	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GHYEVTGSDDETGK	K	L	95.00%	2.45	0.491	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.35	0.469	0	1	5	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	95.00%	5.06	0.0742	0	0	1	0	2	2,730.26	2905	2930	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GKGGVTGSPEASISGSK	K	G	95.00%	3.74	0.138	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.03	0.244	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	GPAFNMASPESDFGINLK	K	G	95.00%	3.5	0.412	0	2	0	0	2	1,990.86	2616	2633	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ISAPNVDFNLEGPK	R	V	95.00%	2.79	0.47	0	1	1	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ISIPDVDLDLKGPK	K	V	95.00%	2.93	0.333	0	0	1	0	2	1,589.82	1920	1933	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ISIPDVGLHLK	K	G	88.40%	1.51	0.285	0	1	0	0	2	1,271.68	1204	1214	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ISMQDVDLSLGSPK	K	L	95.00%	2.18	0.271	0	0	1	0	2	1,569.72	253	266	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	ISMSEVDLNVAAPK	R	V	95.00%	3.11	0.415	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	MPEMSIKPQKISIPDVGLHLK	K	G	95.00%	3.85	0.175	0	0	1	0	2	2,441.27	1194	1214	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	MPSLEISAPK	K	V	95.00%	2.1	0.345	0	1	0	0	2	1,152.54	1977	1986	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	MYFPDVEFDIKSPK	K	F	95.00%	3.78	0.281	0	1	1	0	2	1,795.80	2159	2172	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	SKGHYEVTGSDDETGK	K	L	95.00%	3.35	0.391	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.67	0.0856	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	94.50%	5.14	0.0561	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.71	0.127	0	1	0	0	2	2,194.92	2816	2836	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	VDINTPDVDVHGPDWHLK	K	M	95.00%	4.6	0.403	0	0	1	0	2	2,136.98	1833	1850	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	VEAPSLDVHMDSPDINIEGPDVK	K	I	95.00%	4.63	0.457	0	0	1	0	2	2,557.15	2020	2042	TRUE	
SNU216LR_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	34	45	56	0.34%	14.00%	VKTPEMIIQKPK	K	I	95.00%	2.46	0.326	0	2	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC1_03	CREB-binding protein	IPI00023339,IPI00619932	265,331.20	99.80%	1	1	1	0.01%	0.49%	SISPSALQDLLR	R	T	95.00%	2.31	0.336	0	1	0	0	2	1,379.69	2061	2072	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	2	2	2	0.01%	0.48%	EASENETDMEDPR	K	E	95.00%	2.5	0.32	0	1	0	0	2	1,602.56	6359	6371	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	2	2	2	0.01%	0.48%	RGSMSYLAAVEEEVEESSVK	R	S	95.00%	5.93	0.566	0	0	1	0	2	2,280.01	4106	4125	TRUE	
SNU216LR_PC1_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	98.90%	1	1	1	0.01%	4.97%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.46	0.412	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC1_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.68	0.483	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC1_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.71	0.32	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216LR_PC1_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	3	3	0.02%	7.50%	EPTPSIASDISLPIATQELR	K	Q	95.00%	2.27	0.236	0	1	0	0	2	2,218.10	723	742	TRUE	
SNU216LR_PC1_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	3	3	0.02%	7.50%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	5.7	0.0417	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216LR_PC1_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	3	3	0.02%	7.50%	SSSSLLASPGHISVK	R	E	95.00%	3.04	0.314	0	1	0	0	2	1,549.76	708	722	TRUE	
SNU216LR_PC1_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	99.80%	2	3	4	0.02%	6.12%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	4.76	0.384	0	0	1	0	2	4,118.93	479	519	TRUE	
SNU216LR_PC1_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	99.80%	2	3	4	0.02%	6.12%	RPMEEDGEEKSPSK	K	K	95.00%	4.29	0.502	0	1	2	0	2	1,698.70	372	385	TRUE	
SNU216LR_PC1_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	3	0.02%	14.00%	NSQEDSEDSEDKDVK	K	T	95.00%	2.93	0.424	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216LR_PC1_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	3	0.02%	14.00%	VVDYSQFQESDDADEDYGR	K	D	95.00%	2.64	0.455	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	6.25	0.541	0	0	1	0	2	3,065.37	341	365	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.85	0.467	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.78	0.383	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.02	0.388	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	SLSPGKENVSALDMEK	K	E	95.00%	3.57	0.458	0	1	1	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	8	8	0.05%	13.10%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	3.65	0.259	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216LR_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	4	5	5	0.03%	2.75%	EDPQARPLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	6.85	0.473	0	0	1	1	2	3,121.35	1851	1879	TRUE	
SNU216LR_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	4	5	5	0.03%	2.75%	NSSTDQGSDEEGSLQK	K	E	95.00%	2.44	0.241	0	1	0	0	2	1,761.68	1082	1097	TRUE	
SNU216LR_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	4	5	5	0.03%	2.75%	NSSTDQGSDEEGSLQKEQESAMDKHNLER	K	K	95.00%	3.49	0.148	0	0	0	1	2	3,329.39	1082	1110	TRUE	
SNU216LR_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	4	5	5	0.03%	2.75%	PLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	3.54	0.287	0	0	1	0	2	2,425.03	1857	1879	TRUE	
SNU216LR_PC1_03	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	AQNEFKDEAQSLSHSPK	R	R	95.00%	4.21	0.352	0	0	1	0	2	1,995.88	507	523	TRUE	
SNU216LR_PC1_03	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	RVPTTLSIKPLGAISPVLNR	K	K	95.00%	3.51	0.412	0	0	1	0	2	2,212.26	524	543	TRUE	
SNU216LR_PC1_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	99.80%	2	2	2	0.01%	12.80%	EVKAEEKSPISINVK	R	T	95.00%	2.96	0.406	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216LR_PC1_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	99.80%	2	2	2	0.01%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	5.17	0.527	0	0	1	0	2	2,591.25	92	117	TRUE	
SNU216LR_PC1_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	2	2	2	0.01%	3.67%	SPAVKPAAAPK	K	Q	95.00%	1.81	0.347	0	1	0	0	2	1,116.58	407	417	TRUE	
SNU216LR_PC1_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	2	2	2	0.01%	3.67%	VAGGAAPSKPASAKK	K	G	95.00%	2.65	0.267	0	0	1	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	6	0.04%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	5.85	0.397	0	0	2	0	2	2,877.32	600	626	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	6	0.04%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	5.68	0.553	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	6	0.04%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	6.98	0.477	0	0	2	0	2	3,292.37	627	658	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	6	0.04%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	4.63	0.0909	0	0	1	0	2	3,319.53	596	626	TRUE	
SNU216LR_PC1_03	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	1	2	4	0.02%	0.92%	LEHSSFPEGPGPGSGDEANGPR	R	G	95.00%	5.41	0.533	0	2	2	0	2	2,273.95	2158	2179	TRUE	
SNU216LR_PC1_03	Kanadaptin	IPI00306749	89,016.60	99.80%	2	2	2	0.01%	4.39%	MLGEDSDEEEEMDTSER	K	K	95.00%	3.28	0.423	0	1	0	0	2	2,081.72	307	323	TRUE	
SNU216LR_PC1_03	Kanadaptin	IPI00306749	89,016.60	99.80%	2	2	2	0.01%	4.39%	NWEDEDFYDSDDDTFLDR	K	T	95.00%	3.19	0.4	0	1	0	0	2	2,376.85	457	474	TRUE	
SNU216LR_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	3.58	0.396	0	1	1	0	2	1,983.92	2451	2470	TRUE	
SNU216LR_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	GAANASGSSPDAPAK	K	D	95.00%	2.66	0.206	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216LR_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	KGAANASGSSPDAPAK	R	D	95.00%	3.42	0.439	0	1	0	0	2	1,508.67	2420	2435	TRUE	
SNU216LR_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	LLVRPTSSETPSAAELVSAIEELVK	R	S	85.50%	5.85	0.0056	0	0	1	0	2	2,719.42	1894	1918	TRUE	
SNU216LR_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	SSMEMEGIFNHK	R	D	95.00%	3.27	0.388	0	1	2	0	2	1,489.59	1723	1734	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.80%	2	3	3	0.02%	2.34%	LSGEHSESSTPRPR	K	S	95.00%	2.01	0.243	0	1	0	0	2	1,619.72	1315	1328	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.80%	2	3	3	0.02%	2.34%	SLDSEPSVPSAAKPPSPEK	K	T	95.00%	3.45	0.383	0	1	1	0	2	2,002.94	357	375	TRUE	
SNU216LR_PC1_03	DLNB11 protein	IPI00328798	157,129.30	99.90%	2	2	2	0.01%	3.54%	RPSDLTISINQMGSPGMGHLKSPTLSQVHS	R	S	84.80%	6.57	-0.0065	0	0	0	1	2	4,443.16	913	953	TRUE	
SNU216LR_PC1_03	DLNB11 protein	IPI00328798	157,129.30	99.90%	2	2	2	0.01%	3.54%	TAMPSPGVSQNK	K	Q	95.00%	2.24	0.285	0	1	0	0	2	1,296.57	1013	1024	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform C of Protein C9orf10	IPI00396057,IPI00743942	121,818.10	99.80%	1	1	1	0.01%	3.13%	PVAPQVPSPGGAPGQGPYPYSLSEPAPLTLE	K	N	95.00%	4.29	0.446	0	0	1	0	2	3,512.70	375	409	TRUE	
SNU216LR_PC1_03	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	AESDGEEKEEVKEELGR	K	P	95.00%	4.25	0.448	0	0	1	0	2	2,013.87	2599	2615	TRUE	
SNU216LR_PC1_03	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	SLSDNGQPGTPDPADSGGTSAK	K	E	95.00%	3.31	0.339	0	2	0	0	2	2,138.89	1732	1753	TRUE	
SNU216LR_PC1_03	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	SVGDESWEQTQEGDVGALYHEQLALK	K	T	95.00%	5.63	0.46	0	0	1	0	2	2,969.32	783	808	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	99.70%	2	2	2	0.01%	2.27%	SQSGTLDGESAAWSASGEDSR	R	G	95.00%	5	0.598	0	1	0	0	2	2,177.86	1418	1438	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	99.70%	2	2	2	0.01%	2.27%	SSSSPELQTLQDILGDPGDK	K	A	93.10%	3.45	0.0635	0	1	0	0	2	2,166.98	1385	1404	TRUE	
SNU216LR_PC1_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.4	0.398	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC1_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	GDRSPEPGQTWTR	K	E	95.00%	2.88	0.177	0	0	1	0	2	1,566.67	91	103	TRUE	
SNU216LR_PC1_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.45	0.344	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC1_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	4	4	4	0.02%	20.70%	SPEPGQTWTR	R	E	95.00%	1.94	0.265	0	1	0	0	2	1,238.52	94	103	TRUE	
SNU216LR_PC1_03	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	2	2	3	0.02%	2.47%	NGILAIEGTGSDVDDDMSGDEKQDNESNV	R	D	95.00%	3.33	0.189	0	0	1	0	2	3,472.43	1583	1614	TRUE	
SNU216LR_PC1_03	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	2	2	3	0.02%	2.47%	RPYTGNPQYTYNNWSPPVQSNETSNGYFL	R	S	95.00%	5.58	0.125	0	0	2	0	2	3,759.65	2429	2459	TRUE	
SNU216LR_PC1_03	Deubiquitinating protein VCIP135	IPI00064162	134,322.00	99.80%	1	1	1	0.01%	0.74%	APYSPTTSK	K	E	95.00%	1.7	0.298	0	1	0	0	2	1,031.44	765	773	TRUE	
SNU216LR_PC1_03	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	2	3	8	0.05%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	3.24	0.412	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216LR_PC1_03	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	2	3	8	0.05%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	5.38	0.528	0	0	3	4	2	2,333.13	446	466	TRUE	
SNU216LR_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	5	6	0.04%	4.47%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	4.38	0.507	0	0	2	0	2	3,454.32	11	39	TRUE	
SNU216LR_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	5	6	0.04%	4.47%	EVIDASDKEGMSPAK	K	R	95.00%	3.02	0.303	0	1	0	0	2	1,656.72	82	96	TRUE	
SNU216LR_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	5	6	0.04%	4.47%	EVIDASDKEGMSPAKR	K	T	95.00%	3.75	0.304	0	1	1	0	2	1,812.82	82	97	TRUE	
SNU216LR_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	5	6	0.04%	4.47%	SINEENGEVSEDQSQNK	K	H	95.00%	2.86	0.189	0	1	0	0	2	1,986.79	23	39	TRUE	
SNU216LR_PC1_03	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.01	0.361	0	1	1	0	2	1,656.70	340	354	TRUE	
SNU216LR_PC1_03	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.21	0.339	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216LR_PC1_03	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	46,550.40	99.80%	2	2	2	0.01%	3.98%	ADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4	0.453	0	0	1	0	2	3,164.27	380	407	TRUE	
SNU216LR_PC1_03	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	46,550.40	99.80%	2	2	2	0.01%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.25	0.412	0	0	1	0	2	3,320.37	379	407	TRUE	
SNU216LR_PC1_03	proteasome (prosome, macropain) activator subu	IPI00005260	198,366.10	99.80%	1	1	1	0.01%	0.75%	NPSINQILLSPEK	K	I	95.00%	2.94	0.412	0	1	0	0	2	1,532.77	998	1010	TRUE	
SNU216LR_PC1_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	99.80%	2	2	2	0.01%	4.58%	AIGSTSKPQESPK	R	G	95.00%	2.79	0.367	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216LR_PC1_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	99.80%	2	2	2	0.01%	4.58%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.45	0.28	0	0	1	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC1_03	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	99.90%	2	2	2	0.01%	1.37%	LKAESISEEADSEPGR	K	S	95.00%	2.75	0.371	0	1	0	0	2	1,877.76	1782	1797	TRUE	
SNU216LR_PC1_03	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	99.90%	2	2	2	0.01%	1.37%	RLSLDIQSPPNIGLR	R	R	95.00%	3.49	0.443	0	0	1	0	2	1,758.93	694	708	TRUE	
SNU216LR_PC1_03	215 kDa protein	IPI00470901,IPI00746684	215,345.50	100.00%	2	2	2	0.01%	1.12%	NSTELAPPLPVRR	R	E	95.00%	2.49	0.233	0	0	1	0	2	1,529.78	1833	1845	TRUE	
SNU216LR_PC1_03	215 kDa protein	IPI00470901,IPI00746684	215,345.50	100.00%	2	2	2	0.01%	1.12%	SLQLMDNR	K	L	95.00%	1.91	0.375	0	1	0	0	2	1,056.45	1766	1773	TRUE	
SNU216LR_PC1_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	6	0.04%	6.19%	KDSNELSDSAGEEDSADLKR	K	A	95.00%	3.57	0.38	0	0	1	0	2	2,325.91	709	728	TRUE	
SNU216LR_PC1_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	6	0.04%	6.19%	KTESPIKLSPATPSR	K	K	95.00%	3.61	0.31	0	2	1	0	2	1,691.87	660	674	TRUE	
SNU216LR_PC1_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	6	0.04%	6.19%	SPPLPAVIR	R	N	94.10%	1.58	0.301	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216LR_PC1_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	4	5	6	0.04%	6.19%	SVAVSDEEEVEEEAER	R	R	95.00%	3.57	0.372	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	AALAPAKESPR	R	K	95.00%	2.01	0.41	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	KLGAGEGGEASVSPEK	K	T	95.00%	2.75	0.249	0	0	1	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	KLGAGEGGEASVSPEKTSTTSK	K	G	86.80%	3.62	0.0934	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	LDSSPSVSSTLAAK	K	D	95.00%	2.61	0.331	0	0	1	0	2	1,442.68	1148	1161	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	LGAGEGGEASVSPEK	K	T	95.00%	3.44	0.482	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.47	0.234	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	QEAKPQQAAGMLSPK	K	T	94.10%	2.63	0.142	0	1	0	0	2	1,663.79	1168	1182	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	SLGNILQAKPTSSPAK	K	G	95.00%	3.29	0.42	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.35	0.461	0	1	2	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	SPQVKPASTMGMGPLGK	K	G	95.00%	2.72	0.212	0	0	1	0	2	1,765.84	426	442	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	TSQVGAASAPAKESPR	K	K	95.00%	3.46	0.493	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	TSQVGAASAPAKESPRK	K	G	95.00%	3.58	0.449	0	1	0	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	16	17	0.11%	9.14%	TVANLLSGKSPR	K	K	95.00%	2.79	0.262	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC1_03	Centromere protein C 1	IPI00304885	106,928.30	99.80%	1	1	1	0.01%	1.70%	NDVDDEEVHGSSDDSK	K	Q	95.00%	2.54	0.373	0	1	0	0	2	1,907.62	699	714	TRUE	
SNU216LR_PC1_03	Pericentriol material 1	IPI00006213	228,705.30	100.00%	3	4	4	0.02%	3.21%	ILEDHGSPAGEIDDEDKDKDETETVK	R	Q	95.00%	6.67	0.528	0	0	1	1	2	2,965.28	1724	1749	TRUE	
SNU216LR_PC1_03	Pericentriol material 1	IPI00006213	228,705.30	100.00%	3	4	4	0.02%	3.21%	KDEETEESEYDSEHENSEPVTNIR	R	N	95.00%	5.05	0.144	0	0	1	0	2	2,946.18	527	550	TRUE	
SNU216LR_PC1_03	Pericentriol material 1	IPI00006213	228,705.30	100.00%	3	4	4	0.02%	3.21%	VTNDISPESSPGVGR	R	R	95.00%	3.61	0.505	0	1	0	0	2	1,594.71	60	74	TRUE	
SNU216LR_PC1_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.33	0.222	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC1_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	2	0.01%	2.43%	SPPADAIPK	R	S	83.00%	1.63	0.228	0	1	0	0	2	975.4549	11	19	TRUE	
SNU216LR_PC1_03	Nucleolar protein 9	IPI00002902	79,324.90	99.80%	1	1	1	0.01%	3.56%	LAAFADALEFADEEKESPVEFTGHK	R	L	95.00%	3.15	0.205	0	0	1	0	2	2,831.28	471	495	TRUE	
SNU216LR_PC1_03	pre-mRNA cleavage complex II protein Pcf11	IPI00016387	173,051.00	99.90%	1	1	1	0.01%	0.51%	SPIIHSPK	R	R	95.00%	1.99	0.291	0	1	0	0	2	958.4759	489	496	TRUE	
SNU216LR_PC1_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	2	2	3	0.02%	6.72%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	4.51	0.436	0	0	1	0	2	3,457.45	100	129	TRUE	
SNU216LR_PC1_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	2	2	3	0.02%	6.72%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	4.97	0.498	0	0	2	0	2	3,749.61	163	195	TRUE	
SNU216LR_PC1_03	Isoform 2 of Protein C9orf5	IPI00012429,IPI00607576,IP	100,544.80	99.80%	2	2	2	0.01%	4.41%	AVGPSGGGGETPR	R	T	95.00%	1.96	0.371	0	1	0	0	2	1,221.53	26	38	TRUE	
SNU216LR_PC1_03	Isoform 2 of Protein C9orf5	IPI00012429,IPI00607576,IP	100,544.80	99.80%	2	2	2	0.01%	4.41%	GESAPTLSTSPSPSSPSPTSPSPTLGR	R	R	95.00%	6.83	0	0	1	0	0	2	2,662.22	311	337	TRUE	
SNU216LR_PC1_03	HSPC121	IPI00008998	44,424.70	100.00%	2	3	6	0.04%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.42	0.459	0	0	1	2	2	2,901.33	99	121	TRUE	
SNU216LR_PC1_03	HSPC121	IPI00008998	44,424.70	100.00%	2	3	6	0.04%	6.17%	WLDESDAEMELR	R	A	95.00%	2.78	0.215	0	3	0	0	2	1,589.62	110	121	TRUE	
SNU216LR_PC1_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	2	3	5	0.03%	6.43%	AEEPPSQLDQDTQVQDMDEGSDDEEEGQI	K	V	95.00%	4.24	0.381	0	0	1	0	2	3,329.28	339	367	TRUE	
SNU216LR_PC1_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	2	3	5	0.03%	6.43%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	6.25	0.462	0	1	3	0	2	2,697.03	317	338	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	3	3	0.02%	1.16%	GPVGTVSEAQLAR	K	R	95.00%	1.9	0.335	0	1	0	0	2	1,364.66	168	180	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	3	3	0.02%	1.16%	HTIIPAKSPEK	R	C	95.00%	2.41	0.469	0	1	1	0	2	1,300.67	1908	1918	TRUE	
SNU216LR_PC1_03	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	3	4	4	0.02%	2.18%	LPDLSPVENKEHKPGPIGK	K	E	95.00%	3.55	0.394	0	0	1	0	2	2,135.09	2101	2119	TRUE	
SNU216LR_PC1_03	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	3	4	4	0.02%	2.18%	QRGSETDTDSEIHESASDKDSLSK	R	G	95.00%	5.04	0.363	0	0	0	1	2	2,702.14	1260	1283	TRUE	
SNU216LR_PC1_03	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	3	4	4	0.02%	2.18%	SVSHGSNHTQKPDEQR	R	S	95.00%	2.69	0.385	0	0	1	1	2	1,886.81	924	939	TRUE	
SNU216LR_PC1_03	heterogeneous nuclear ribonucleoprotein U isofo	IPI00644079	90,585.20	100.00%	1	1	1	0.01%	3.88%	LQAALDDEEAGGRPAMEPGNGSLDLGGDS	R	S	89.00%	3.64	0.142	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216LR_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	5	6	7	0.04%	1.56%	SLLGIDTEDAIQGR	R	N	95.00%	3.02	0.436	0	1	0	0	2	1,567.74	1750	1763	TRUE	
SNU216LR_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	5	6	7	0.04%	1.56%	SPVDSGTILREPTTK	R	S	95.00%	2.65	0.371	0	1	0	0	2	1,680.82	3150	3164	TRUE	
SNU216LR_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	5	6	7	0.04%	1.56%	SVPVNNLPERSPTDSPR	K	E	95.00%	3.17	0.37	0	1	2	0	2	1,944.92	3165	3181	TRUE	
SNU216LR_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	5	6	7	0.04%	1.56%	VAQRSPVDSGTILR	K	E	95.00%	2.33	0.216	0	1	0	0	2	1,578.80	3146	3159	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	5	6	7	0.04%	1.56%	VAQRSPVDSGTILREPTTK	K	S	95.00%	4.22	0.352	0	0	1	0	2	2,135.09	3146	3164	TRUE	
SNU216LR_PC1_03	WD-repeat protein 33	IPI00106567	145,920.70	100.00%	3	6	6	0.04%	3.52%	DTPRPDHPPHDGHSPASR	R	E	95.00%	3.22	0.419	0	0	1	1	2	2,055.88	1197	1214	TRUE	
SNU216LR_PC1_03	WD-repeat protein 33	IPI00106567	145,920.70	100.00%	3	6	6	0.04%	3.52%	SSSLDGEHHDGYHR	R	D	95.00%	2.37	0.327	0	1	1	1	2	1,676.65	1277	1290	TRUE	
SNU216LR_PC1_03	WD-repeat protein 33	IPI00106567	145,920.70	100.00%	3	6	6	0.04%	3.52%	SSSLQGMDMASLPPR	R	K	95.00%	2.69	0.228	0	1	0	0	2	1,656.71	1217	1231	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	3	4	4	0.02%	2.10%	SFLSEPSSPGR	R	T	95.00%	2.58	0.465	0	1	0	0	2	1,243.54	1572	1582	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	3	4	4	0.02%	2.10%	VISHDRDSPPPPPPPPPPQPQPSLK	R	R	95.00%	6.54	0.422	0	0	1	1	2	2,854.43	131	156	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	3	4	4	0.02%	2.10%	VISHDRDSPPPPPPPPPPQPQPSLKR	R	N	95.00%	5.2	0.517	0	0	0	1	2	3,010.53	131	157	TRUE	
SNU216LR_PC1_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	5	0.03%	7.26%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	5.21	0.544	0	2	1	0	2	2,296.94	948	966	TRUE	
SNU216LR_PC1_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	5	0.03%	7.26%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	91.40%	6.38	0.003	0	0	1	0	2	4,426.91	1057	1096	TRUE	
SNU216LR_PC1_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	5	0.03%	7.26%	VIPEDASESEEKLDQKEDGSK	K	Y	95.00%	2.69	0.278	0	0	1	0	2	2,413.07	915	935	TRUE	
SNU216LR_PC1_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	6.2	0.0647	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	99.80%	2	2	3	0.02%	2.14%	AGSSPAQGAQNEPPR	K	L	95.00%	2.53	0.463	0	2	0	0	2	1,546.66	556	570	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	99.80%	2	2	3	0.02%	2.14%	GNASPGAATHDSLSDYGPQDSRPTPMR	R	R	95.00%	3.55	0.282	0	0	1	0	2	2,865.23	963	989	TRUE	
SNU216LR_PC1_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	3.79	0.376	0	0	2	0	2	3,291.30	348	375	TRUE	
SNU216LR_PC1_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	MLAESDESGDEESVSQTDK	K	T	95.00%	2.88	0.393	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216LR_PC1_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.97	0.454	0	0	1	0	2	3,172.29	186	212	TRUE	
SNU216LR_PC1_03	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.80%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLK	K	E	95.00%	3.86	0.37	0	1	0	0	2	2,126.01	629	646	TRUE	
SNU216LR_PC1_03	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.80%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLKEEEDYKEENNDSK	K	E	95.00%	6.03	0.404	0	0	1	1	2	3,735.64	629	659	TRUE	
SNU216LR_PC1_03	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	3	5	5	0.03%	4.51%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	3.16	0.298	0	1	1	0	2	2,369.06	958	978	TRUE	
SNU216LR_PC1_03	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	3	5	5	0.03%	4.51%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	4.38	0.52	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216LR_PC1_03	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	3	5	5	0.03%	4.51%	VFLTDTDPNENFSAQGEDEWPPLRK	R	V	95.00%	3.41	0.359	0	0	1	0	2	2,985.33	468	492	TRUE	
SNU216LR_PC1_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	2	2	0.01%	4.94%	RASDDGKLTDPSK	R	T	95.00%	2.67	0.313	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216LR_PC1_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	2	2	0.01%	4.94%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	2.63	0.21	0	0	1	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	DSEDVSERDSDKEMATK	R	S	95.00%	3.88	0.396	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	EDEKGDDVDDPENQNSALADTDASGGLTK	K	Q	95.00%	7.75	0.0225	0	0	1	0	2	4,011.67	1696	1733	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	EGVTPWASFKK	R	M	95.00%	2.22	0.214	0	1	0	0	2	1,329.62	604	614	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	GLAEVQQDGEAEEGATSDGEK	K	K	95.00%	4.26	0.445	0	3	1	0	2	2,199.89	581	601	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	GLAEVQQDGEAEEGATSDGEKKR	K	E	95.00%	3.98	0.189	0	0	1	0	2	2,484.09	581	603	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	KDEGEGAAGAGDHQDPSLGAGEAASK	K	E	95.00%	3.06	0.22	0	0	1	0	2	2,505.05	202	227	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	LSAEYEKVELPSEEQVSGSQGPSEEKPAPLAT	R	I	95.00%	4.79	0.289	0	0	0	3	2	4,213.96	369	406	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	4.93	0.515	0	0	1	1	2	3,085.39	349	375	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	RPSESDKEDELDK	R	V	95.00%	2.42	0.33	0	1	0	0	2	1,627.69	624	636	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	SAESPTSPVTSETGSTFK	K	K	95.00%	4.17	0.0628	0	1	0	0	2	1,892.82	279	296	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	SAESPTSPVTSETGSTFKK	K	F	95.00%	3.7	0.0829	0	1	0	0	2	2,020.91	279	297	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	SATLSSTESTASEMQEEMK	K	G	95.00%	4.07	0.12	0	1	0	0	2	2,206.82	639	657	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	4.88	0.498	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	14	16	20	0.12%	13.80%	VLSKPPEGVVSEVEMLSSQER	K	M	95.00%	4.13	0.308	0	0	1	0	2	2,380.15	487	507	TRUE	
SNU216LR_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	3.76%	DVEDMELSDVEDDGSK	R	I	95.00%	3.01	0.419	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216LR_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	3.76%	GPTSTSIDNIDGTPVRDER	R	S	95.00%	3.05	0.379	0	1	0	0	2	2,109.95	685	703	TRUE	
SNU216LR_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	3.76%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	4.5	0.0744	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	4	5	6	0.04%	3.81%	GGNLPPVSPNDSGAK	K	I	95.00%	3.23	0.489	0	1	0	0	2	1,489.67	659	673	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	4	5	6	0.04%	3.81%	KKSVGGDSDTEDMR	R	S	95.00%	3.54	0.513	0	2	0	0	2	1,604.66	296	309	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	4	5	6	0.04%	3.81%	LIPITGGNARSPEDQLGK	K	H	95.00%	3.77	0.479	0	1	1	0	2	1,945.97	521	538	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	4	5	6	0.04%	3.81%	SVGGDSDTEDMR	K	S	95.00%	2.08	0.455	0	1	0	0	2	1,348.47	298	309	TRUE	
SNU216LR_PC1_03	Sperm specific antigen 2	IPI00386170	137,859.60	99.80%	2	2	3	0.02%	3.82%	NIMTQQKDSFEMEEVQSTEGEAPHVPATY(	R	S	95.00%	7.28	0.644	0	0	1	0	2	4,016.83	458	492	TRUE	
SNU216LR_PC1_03	Sperm specific antigen 2	IPI00386170	137,859.60	99.80%	2	2	3	0.02%	3.82%	SQSLPTTLLSPVR	R	V	95.00%	2.68	0.386	0	2	0	0	2	1,478.76	737	749	TRUE	
SNU216LR_PC1_03	DNAJ domain-containing	IPI00001649	16,383.60	99.00%	2	2	2	0.01%	16.00%	TTTK	E	-	80.70%	0.264	1	1	0	0	0	1	690.1549	146	149	TRUE	
SNU216LR_PC1_03	DNAJ domain-containing	IPI00001649	16,383.60	99.00%	2	2	2	0.01%	16.00%	YAEYLQPSAKRPDADVDQQR	R	L	95.00%	3.37	0.275	0	0	1	0	2	2,510.08	16	35	TRUE	
SNU216LR_PC1_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.02%	16.10%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	95.00%	5.26	0.33	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC1_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.02%	16.10%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.32	0.511	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC1_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.02%	16.10%	QASTDAGTAGALTPQHVR	R	A	95.00%	2.94	0.317	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC1_03	Zinc finger protein 198	IPI00294603,IPI00640771	87,493.50	99.80%	1	1	1	0.01%	1.01%	MTGSAPPPSPTPNK	K	E	95.00%	2.38	0.284	0	1	0	0	2	1,461.64	213	226	TRUE	
SNU216LR_PC1_03	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	3	3	3	0.02%	2.05%	ILIPSDIESSK	R	S	95.00%	2.46	0.402	0	1	0	0	2	1,281.63	459	469	TRUE	
SNU216LR_PC1_03	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	3	3	3	0.02%	2.05%	VEETSPLGNAR	K	L	95.00%	1.95	0.285	0	1	0	0	2	1,252.56	1142	1152	TRUE	
SNU216LR_PC1_03	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	3	3	3	0.02%	2.05%	YHTPPRSR	R	S	92.90%	1.55	0.297	0	1	0	0	2	1,173.46	341	348	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	4	7	7	0.04%	2.86%	ERGSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.54	0.599	0	0	1	1	2	3,198.54	273	302	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	4	7	7	0.04%	2.86%	GSSLSGTDDGAQEVVK	R	D	95.00%	3.05	0.492	0	1	0	0	2	1,629.70	275	290	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	4	7	7	0.04%	2.86%	GSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.43	0.562	0	1	1	1	2	2,913.40	275	302	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	4	7	7	0.04%	2.86%	HLDVDLDRQSLSSIDKNPSER	K	G	95.00%	3.26	0.278	0	0	0	1	2	2,504.18	1502	1522	TRUE	
SNU216LR_PC1_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,038.00	99.80%	2	3	3	0.02%	4.07%	ASSLGEIDESSELR	R	V	95.00%	3.19	0.564	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216LR_PC1_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,038.00	99.80%	2	3	3	0.02%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.32	0.399	0	0	1	1	2	3,054.38	939	964	TRUE	
SNU216LR_PC1_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.8	0.417	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC1_03	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	4	4	4	0.02%	2.85%	GSEGYLAATYPTVGQTSPR	K	A	95.00%	3.85	0.0233	0	1	0	0	2	2,034.92	2478	2496	TRUE	
SNU216LR_PC1_03	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	4	4	4	0.02%	2.85%	KVSVSESNVLLDEEVLTDPK	R	I	95.00%	4.5	0.409	0	0	1	0	2	2,281.12	2574	2593	TRUE	
SNU216LR_PC1_03	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	4	4	4	0.02%	2.85%	SLLLTDISMENVPMDTYPIHHGDPSYR	K	T	95.00%	4.51	0.365	0	0	1	0	2	3,181.44	2439	2465	TRUE	
SNU216LR_PC1_03	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	4	4	4	0.02%	2.85%	SMSLDMGQPSQANTK	K	K	95.00%	2.58	0.351	0	1	0	0	2	1,674.69	2500	2514	TRUE	
SNU216LR_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	4.97%	DDATPVRDEPMDAESITFK	R	S	95.00%	3.2	0.333	0	1	1	0	2	2,216.94	804	822	TRUE	
SNU216LR_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	4.97%	ISKLEVTEIVKPSPK	K	R	95.00%	3.02	0.25	0	0	1	0	2	1,747.96	990	1004	TRUE	
SNU216LR_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	4.97%	KVTGTEGSSSTLVDYTSTSSTGGSPVRK	R	S	95.00%	7.51	0.0358	0	0	1	0	2	2,869.35	1077	1104	TRUE	
SNU216LR_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	4.97%	LEVTEIVKPSPK	K	R	95.00%	3.16	0.366	0	1	1	0	2	1,419.75	993	1004	TRUE	
SNU216LR_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	4.97%	LEVTEIVKPSPKR	K	K	95.00%	2.92	0.343	0	0	1	0	2	1,575.85	993	1005	TRUE	
SNU216LR_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	4.97%	NLQPLMRSPISR	R	Q	95.00%	3.13	0.307	0	1	0	0	2	1,491.75	176	187	TRUE	
SNU216LR_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	4.97%	WDKDDFESEEEDVK	K	S	95.00%	3.68	0.255	0	1	0	0	2	1,850.70	1144	1157	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	100.00%	2	3	3	0.02%	0.64%	LSTSPPPPAIAVPLLEMGFSLR	R	Q	95.00%	5.3	0.604	0	1	1	0	2	2,373.23	2744	2765	TRUE	
SNU216LR_PC1_03	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	100.00%	2	3	3	0.02%	0.64%	SESLTAESR	R	L	94.50%	1.75	0.29	0	1	0	0	2	1,059.44	1489	1497	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	8	0.05%	3.63%	ASPPAESMSVYR	R	S	95.00%	2.03	0.235	0	1	0	0	2	1,374.58	1454	1465	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	8	0.05%	3.63%	DSAYISSSPLGSHQVFDFR	R	S	95.00%	4.18	0.013	0	1	0	0	2	2,192.96	1361	1379	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	8	0.05%	3.63%	EYPSPPPSPLR	K	R	88.70%	1.87	0.237	0	1	0	0	2	1,319.60	1437	1447	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	8	0.05%	3.63%	HTPLRTSLR	R	M	95.00%	1.54	0.324	0	1	0	0	2	1,160.59	198	206	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	8	0.05%	3.63%	PSQGLPVIQSPPSSPPHR	R	D	95.00%	4	0.398	0	1	3	0	2	2,040.93	1343	1360	TRUE	
SNU216LR_PC1_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	99.70%	2	3	3	0.02%	2.27%	EAARSPDKPGGSPSASR	R	R	95.00%	3.23	0.404	0	1	1	0	2	1,749.79	45	61	TRUE	
SNU216LR_PC1_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	99.70%	2	3	3	0.02%	2.27%	SPDKPGGSPSASR	R	R	93.30%	2.25	0.237	0	1	0	0	2	1,322.57	49	61	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.85%	IILNSHSPAGSAAISQQDFHPK	R	C	95.00%	4.22	0.252	0	0	1	0	2	2,398.16	1606	1627	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.85%	QEAEDLSLSAPSSPEISPQSSPRPHRPNNDR	R	L	84.00%	3.29	0.173	0	0	0	1	2	3,478.60	2061	2091	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.85%	TISAQDTLAYATALLNEK	R	E	95.00%	4.28	0.517	0	1	1	0	2	2,002.97	2559	2576	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.85%	TLLSESSSQSSKSPSLSSK	K	Q	95.00%	4.17	0.052	0	1	0	0	2	2,019.95	1129	1147	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	5	7	7	0.04%	3.85%	VSDQNSPVLPK	R	K	95.00%	2.36	0.215	1	1	0	0	2	1,263.60	2042	2052	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	KQSFDDNDSEELEDKDSK	K	S	95.00%	4.93	0.405	0	2	1	0	2	2,208.88	105	122	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	KWDGSEEDEDNSK	K	K	95.00%	3.19	0.451	0	1	0	0	2	1,618.59	160	172	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	KWDGSEEDEDNSKK	K	I	95.00%	3.57	0.454	0	1	1	0	2	1,746.69	160	173	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.18	0.479	0	2	3	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.84	0.302	0	2	1	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	VEMYSGSDDDDDFNK	K	L	95.00%	2.98	0.479	0	1	0	0	2	1,816.63	131	145	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.47	0.381	0	5	4	0	2	2,170.85	131	148	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	WDGSEEDEDNSK	K	K	95.00%	2.27	0.425	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	9	14	26	0.16%	5.66%	WDGSEEDEDNSKK	K	I	95.00%	2.1	0.278	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC1_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.5	0.427	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216LR_PC1_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.86	0.5	0	0	1	1	2	2,727.34	846	871	TRUE	
SNU216LR_PC1_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	4.79	0.438	0	0	3	1	2	3,113.52	846	874	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcriptional-regulating factor 1	IPI00044583	132,255.20	98.90%	1	1	1	0.01%	1.58%	DKPASSMSDDEMPVLEIPR	R	K	95.00%	2.85	0.438	0	1	0	0	2	2,196.96	614	632	TRUE	
SNU216LR_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	8	0.05%	6.15%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.89	0.575	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	8	0.05%	6.15%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.53	0.593	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	8	0.05%	6.15%	KAEQGSEEEGEGEEEEEEGGESKADDPYAH	K	K	95.00%	5.59	0.47	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216LR_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	8	0.05%	6.15%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	5.08	0.422	0	0	2	0	2	2,174.04	104	122	TRUE	
SNU216LR_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	8	0.05%	6.15%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.87	0.503	0	1	1	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	5	6	6	0.04%	4.21%	EHSNPSPSQDTDGTK	R	A	82.40%	3.24	0.0457	0	1	0	0	2	1,679.65	95	109	TRUE	
SNU216LR_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	5	6	6	0.04%	4.21%	EVSPAPAVAGQSK	R	G	95.00%	2.55	0.486	0	1	0	0	2	1,320.62	1362	1374	TRUE	
SNU216LR_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	5	6	6	0.04%	4.21%	QPSGSFSTPGSATYVR	R	Y	95.00%	2.34	0.279	0	1	0	0	2	1,721.75	1156	1171	TRUE	
SNU216LR_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	5	6	6	0.04%	4.21%	RPVSFPETPYTVSPAGADR	K	V	95.00%	3.5	0.292	0	0	1	0	2	2,126.99	1132	1150	TRUE	
SNU216LR_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	5	6	6	0.04%	4.21%	SKDVEFQDGWPR	R	S	95.00%	2.32	0.29	0	1	1	0	2	1,543.66	146	157	TRUE	
SNU216LR_PC1_03	Hypothetical protein BUD13	IPI00013743	70,522.60	99.90%	2	2	2	0.01%	4.52%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.8	0.296	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216LR_PC1_03	Hypothetical protein BUD13	IPI00013743	70,522.60	99.90%	2	2	2	0.01%	4.52%	HDTPDPSPLR	R	G	95.00%	2.12	0.256	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216LR_PC1_03	Isoform 1 of Eukaryotic translation initiation factor	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	ALENGDADEPSFSDPEDFVDDVSEEELLGD	R	D	86.10%	3.15	0.151	0	0	1	0	2	3,675.56	142	174	TRUE	
SNU216LR_PC1_03	Isoform 1 of Eukaryotic translation initiation factor	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	4.04	0.401	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	3	3	0.02%	7.37%	EGSPIPHDPEFGSK	R	L	95.00%	2.86	0.382	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	3	3	0.02%	7.37%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	3.83	0.165	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	ELDPSLVSANDSPSGMQTR	R	C	95.00%	4.81	0.0629	0	1	0	0	2	2,083.90	2150	2168	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	GQSPLAPLLETLEDPSASHGGQTDAYLTLTS	R	M	95.00%	6.11	0.594	0	0	1	0	2	3,405.62	5	36	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	NVSQESLETKEEKPEETPK	K	M	95.00%	3.47	0.236	0	0	2	0	2	2,282.04	1871	1889	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	RASQGLLSSIENSESDSSEAKEEGSR	R	K	87.40%	3.47	0.11	0	0	1	0	2	2,913.21	1540	1565	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	SLSPDEER	K	L	89.90%	1.59	0.272	0	1	0	0	2	1,012.40	2391	2398	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	SNESVDIQDQEEK	K	V	95.00%	3.26	0.418	0	1	0	0	2	1,600.64	1576	1588	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	SPLHIKDDVLPK	K	Q	95.00%	2.68	0.363	0	0	1	0	2	1,441.75	1454	1465	TRUE	
SNU216LR_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	8	8	9	0.06%	5.76%	SQEDEISSPVNK	R	V	95.00%	2.32	0.206	0	1	0	0	2	1,412.59	2189	2200	TRUE	
SNU216LR_PC1_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	7	0.04%	3.54%	SPSPEPIYNSEGK	R	R	95.00%	2.07	0.327	0	1	0	0	2	1,564.60	204	216	TRUE	
SNU216LR_PC1_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	7	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.43	0.235	0	0	2	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC1_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	7	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.75	0.388	0	0	3	1	2	3,082.36	191	217	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	3	0.02%	1.57%	IEENSLKEEESIEGEKEVK	K	S	95.00%	3.92	0.303	0	0	1	0	2	2,299.06	1594	1612	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	3	0.02%	1.57%	KMSQPGSPSPK	K	T	95.00%	2.5	0.24	0	1	0	0	2	1,303.52	1557	1567	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	3	3	3	0.02%	1.57%	MSQPGSPSPK	K	T	95.00%	1.47	0.412	1	0	0	0	2	1,175.42	1558	1567	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	99.80%	1	1	1	0.01%	2.08%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	2.68	0.235	0	1	0	0	2	2,046.92	510	526	TRUE	
SNU216LR_PC1_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RDSLTGSSDLYK	R	R	95.00%	3.31	0.369	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216LR_PC1_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RDSLTGSSDLYKR	R	T	95.00%	4.19	0.498	0	1	1	0	2	1,577.73	708	720	TRUE	
SNU216LR_PC1_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	4	4	0.02%	2.61%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	4.09	0.395	0	1	0	0	2	2,190.05	193	211	TRUE	
SNU216LR_PC1_03	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.30%	2	3	3	0.02%	4.40%	GISPIVFDR	R	S	86.50%	1.65	0.234	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216LR_PC1_03	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.30%	2	3	3	0.02%	4.40%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	3.92	0.447	0	0	1	1	2	2,465.14	415	437	TRUE	
SNU216LR_PC1_03	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	2	2	2	0.01%	3.65%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	4.34	0	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216LR_PC1_03	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	2	2	2	0.01%	3.65%	MEEESQSQGRDLTLEENQVKK	R	Y	95.00%	3.64	0.289	0	0	1	0	2	2,558.14	354	374	TRUE	
SNU216LR_PC1_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	7	0.04%	8.20%	AAESPDQKDTEGGPK	K	E	95.00%	2.5	0.406	0	1	0	0	2	1,609.67	480	494	TRUE	
SNU216LR_PC1_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	7	0.04%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	5.49	0.471	0	2	0	0	2	2,279.96	480	500	TRUE	
SNU216LR_PC1_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	7	0.04%	8.20%	DTEGGPKEEESPV	K	-	95.00%	2.17	0.247	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216LR_PC1_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	7	0.04%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4.34	0.436	0	1	1	1	2	2,270.04	460	479	TRUE	
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.92	0.473	0	1	1	0	2	2,438.12	4224	4246	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	AQLEPVASPAK	K	K	82.30%	1.68	0.158	1	0	0	0	2	1,190.58	1291	1301	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	ARSDEGQLSPATR	R	G	95.00%	3.48	0.4	0	0	1	0	2	1,467.66	575	587	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	GYYSPYSVSGSGSTAGSR	K	T	88.80%	3.64	0.0081	0	1	0	0	2	1,862.76	4473	4490	FALSE	IPI00398002,IPI00186711

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	KRTSSEDNLYLAVLR	R	A	95.00%	3.65	0.32	0	0	2	0	2	1,924.89	17	31	TRUE	
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	4.78	0.19	0	1	1	0	2	2,853.15	4503	4529	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	RTSSEDNLYLAVLR	K	A	95.00%	3.33	0.424	0	0	1	0	2	1,716.83	18	31	TRUE	
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	SSSVGSSSSYPISPAVSR	R	T	95.00%	2.91	0.348	0	3	1	0	2	1,834.82	4247	4264	FALSE	IPI00398002,IPI00186711
SNU216LR_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	4	0.02%	2.75%	TSSEDNLYLAVLR	R	A	95.00%	3.14	0.345	0	1	0	0	2	1,560.73	19	31	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	SPEPEATLTFPFLDK	K	M	95.00%	3.69	0.424	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	3.48	0.514	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216LR_PC1_03	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	HRSIHEVDISNLEAALR	R	A	95.00%	2.83	0.201	0	0	0	1	2	2,040.00	885	901	TRUE	
SNU216LR_PC1_03	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	TKSPTDDEVTPSAVVR	R	R	95.00%	3.89	0.543	0	1	1	0	2	1,781.83	795	810	TRUE	
SNU216LR_PC1_03	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	99.30%	1	1	1	0.01%	2.01%	EGDELEDNGKNFYESDDDQKEK	K	T	86.40%	3.7	0.101	0	0	1	0	2	2,684.05	262	283	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	ATLSSTSGLDLMSESGEGEISPQR	K	E	95.00%	4.27	0.13	0	1	0	0	2	2,532.12	672	695	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	EVAATEEDVTRLPSPTSPFSSLSQDQAATSK	K	A	95.00%	6.03	0.0923	0	0	2	0	2	3,329.54	641	671	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	4.53	0.134	0	2	0	0	2	2,128.98	652	671	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	RGESLDNLDSPR	R	S	95.00%	2.69	0.312	0	1	0	0	2	1,438.63	1173	1184	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	SASVNKEPVSLPGIMR	R	R	95.00%	3.48	0.448	0	0	1	0	2	1,764.87	1157	1172	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	SHSPSASQSGSQLR	R	N	95.00%	3.08	0.365	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	SRSTTELDDYSTNKNGNNK	K	Y	95.00%	3.63	0.315	0	0	1	0	2	2,223.95	1087	1105	TRUE	
SNU216LR_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	8	8	10	0.06%	10.50%	TPNNVVSTPAPSPDASQLASSLSSQK	R	E	95.00%	5.07	0.172	0	0	1	0	2	2,663.26	615	640	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	ANTSGDFEKDDDAYK	K	T	95.00%	3.54	0.554	0	1	0	0	2	1,755.67	1990	2004	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	ANTSGDFEKDDDAYKTEDSDDIHFEPVVQK	K	V	95.00%	3.39	0.174	0	0	0	1	2	3,852.61	1990	2022	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	AVVSPPKFVFGSESVK	K	S	95.00%	2.9	0.467	0	0	1	0	2	1,757.89	2507	2522	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	DSLITPHVSR	K	S	90.20%	1.92	0.245	0	1	0	0	2	1,204.57	2446	2455	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	EDALDDSVSSSSVHASPLASSPVRK	R	N	95.00%	4.75	0.318	0	0	1	0	2	2,621.21	2231	2255	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	FESPATGILSPR	R	G	95.00%	2.35	0.213	0	1	0	0	2	1,354.64	946	957	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	KKPEDSPSDDDVLIVYELTPTAEQK	K	A	95.00%	5.01	0.376	0	0	1	0	2	2,897.37	2621	2645	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	KQSLPATSIPTPASFK	R	F	95.00%	3.3	0.456	0	1	1	0	2	1,752.89	1507	1522	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	LNQSGTSVGTDEESDVTQEEER	K	D	95.00%	4.04	0.0125	0	1	0	0	2	2,569.98	2284	2305	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	LTPNAGSDRSFVWHALDYADELPKPEQLAII	K	F	95.00%	3.96	0.296	0	0	0	1	2	3,589.75	1254	1284	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	NADSEIKHSTPSTR	R	Y	95.00%	2.5	0.343	0	1	0	0	2	1,719.77	770	784	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	I	95.00%	3.14	0.239	0	0	1	1	2	3,149.28	1153	1181	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	T	95.00%	4.99	0.555	0	0	1	1	2	3,618.57	1153	1185	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	3.87	0.298	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	SALSPSKSPAK	K	L	95.00%	2.15	0.324	0	1	0	0	2	1,152.57	2273	2283	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	TAQEKDSLITPHVSR	K	S	95.00%	2.62	0.252	0	1	0	0	2	1,761.85	2441	2455	TRUE	
SNU216LR_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	17	21	21	0.13%	9.55%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	5.37	0.52	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216LR_PC1_03	Pericentrin	IPI00479143	378,077.40	99.80%	2	2	2	0.01%	0.96%	NWDSLIPDEMPDSPIQEK	K	S	95.00%	3.16	0.336	0	1	0	0	2	2,193.94	2165	2182	TRUE	
SNU216LR_PC1_03	Pericentrin	IPI00479143	378,077.40	99.80%	2	2	2	0.01%	0.96%	RESEVLDLKEQLEK	R	M	95.00%	3.77	0.294	0	0	1	0	2	1,795.88	1651	1664	TRUE	
SNU216LR_PC1_03	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	100.00%	2	3	3	0.02%	4.65%	NVDSLSAPHNHPPEDPFGSVPFISHSGSPEK	K	K	95.00%	6.91	0.346	0	0	0	1	2	3,362.51	662	692	TRUE	
SNU216LR_PC1_03	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	100.00%	2	3	3	0.02%	4.65%	SESNEDLFGLVPFDEITGSQQQK	K	V	95.00%	3.72	0.4	0	1	1	0	2	2,648.18	947	969	TRUE	
SNU216LR_PC1_03	Matrin-3	IPI00017297	94,626.70	100.00%	2	3	3	0.02%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.13	0.389	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC1_03	Matrin-3	IPI00017297	94,626.70	100.00%	2	3	3	0.02%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.69	0.265	0	0	1	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC1_03	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	99.80%	2	3	3	0.02%	1.50%	APLKPYPVPSPSDK	K	V	95.00%	2.64	0.415	0	1	1	0	2	1,478.73	1043	1055	TRUE	
SNU216LR_PC1_03	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	99.80%	2	3	3	0.02%	1.50%	APLKPYPVSPSDKVLIQEK	K	T	95.00%	3.22	0.296	0	0	1	0	2	2,189.16	1043	1061	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	130,789.50	99.80%	2	2	2	0.01%	4.06%	HPPLYQAGLTPPLSPPK	R	S	95.00%	3.91	0.414	0	0	1	0	2	1,892.97	482	498	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	130,789.50	99.80%	2	2	2	0.01%	4.06%	LSLSPALQDALHTFPQLQVEQSGEGSPEEGA	R	L	95.00%	3.83	0.353	0	0	1	0	2	3,570.71	1087	1119	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.90%	2	2	2	0.01%	2.72%	DSALAEAPEGLSPAPPAR	R	S	95.00%	3.35	0.424	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.90%	2	2	2	0.01%	2.72%	HAPEHHPGHGDRLSPGER	R	R	95.00%	3.05	0.324	0	0	0	1	2	2,065.91	994	1011	TRUE	
SNU216LR_PC1_03	Pre-mRNA-splicing factor PRP17	IPI00026307	65,522.00	98.80%	1	1	1	0.01%	3.63%	SPSSKPSLAVAVDSAPEVAVK	K	E	95.00%	3.26	0.314	0	0	1	0	2	2,119.07	43	63	TRUE	
SNU216LR_PC1_03	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	3	0.02%	2.84%	YSPTSPTYSPTSPVYTPTSPK	K	Y	95.00%	4.25	0	0	1	0	0	2	2,338.05	1890	1910	TRUE	
SNU216LR_PC1_03	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	3	0.02%	2.84%	YSPTSPTYSPTTPK	K	Y	84.40%	3.6	0.0076	0	0	1	0	2	1,686.67	1876	1889	TRUE	
SNU216LR_PC1_03	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	3	0.02%	2.84%	YTPTSPYSPSPSSPEYTPTSPK	K	Y	91.00%	3.95	-0.0099	0	1	0	0	2	2,354.01	1841	1861	TRUE	
SNU216LR_PC1_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	2	2	0.01%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.23	0.534	0	0	1	0	2	2,873.37	59	85	TRUE	
SNU216LR_PC1_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	2	2	0.01%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	95.00%	4.11	0.0143	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC1_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.02%	5.46%	AGAEDDEEKGEGTPREEGK	K	A	95.00%	2.99	0.246	0	0	1	0	2	2,083.85	150	168	TRUE	
SNU216LR_PC1_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.02%	5.46%	ASDLEDEESAAR	R	G	95.00%	2.61	0.422	0	1	0	0	2	1,372.53	45	56	TRUE	
SNU216LR_PC1_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.02%	5.46%	GPSQEEEDNHSDEEDR	R	A	95.00%	3.77	0.553	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216LR_PC1_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.02%	5.46%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	3.31	0.23	0	0	1	0	2	2,464.94	57	77	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	ASGSENEGDYNPGR	K	K	95.00%	2.82	0.442	0	1	0	0	2	1,532.57	1549	1562	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	ASGSENEGDYNPGRK	K	T	95.00%	2.63	0.277	0	1	0	0	2	1,660.66	1549	1563	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	ASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	3.14	0.204	0	0	1	0	2	3,210.37	1399	1427	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	FDSNEEDSASVFSPSFGLK	K	Q	95.00%	3.84	0.544	0	1	1	0	2	2,142.89	1464	1482	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	KASGSENEGDYNPGR	R	K	95.00%	2.79	0.434	0	1	0	0	2	1,740.63	1548	1562	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	KASGSENEGDYNPGRK	R	T	95.00%	3.69	0.415	0	2	2	0	2	1,868.72	1548	1563	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.99	0.469	0	1	2	1	2	3,017.35	1574	1599	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	KVVEAVNSDSDSEFGIPK	K	K	95.00%	3.66	0.324	0	1	0	0	2	2,080.89	1515	1532	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	5.06	0.21	0	1	2	0	2	2,875.18	1457	1482	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	SQDFGNLFSFPSYSQKSEDDSAK	K	F	87.70%	5.96	0	0	0	1	0	2	2,664.11	1441	1463	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	TSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	3.94	0.435	0	0	1	0	2	2,889.25	1575	1599	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	VKASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	6.76	0.511	0	0	3	0	2	3,437.53	1397	1427	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	VVEAVNSDSDSEFGIPK	K	K	95.00%	2.73	0.235	0	1	0	0	2	1,872.83	1516	1532	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	YTFDFSEEEDDDADDDDDDNNDLEELK	K	V	95.00%	3.65	0.481	0	0	1	0	2	3,308.16	1370	1396	TRUE	
SNU216LR_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	15	20	26	0.16%	9.87%	YTFDFSEEEDDDADDDDDDNNDLEELKVK	K	A	95.00%	6.69	0.66	0	0	1	0	2	3,535.32	1370	1398	TRUE	
SNU216LR_PC1_03	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.80%	2	2	2	0.01%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	2.28	0.282	0	1	0	0	2	1,702.72	176	190	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.80%	2	2	2	0.01%	7.25%	LEGNSPQGSNQGVK	K	I	95.00%	2.26	0.324	0	1	0	0	2	1,494.66	177	190	TRUE	
SNU216LR_PC1_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.31	0.19	0	0	2	0	2	2,664.20	232	256	TRUE	
SNU216LR_PC1_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	90.90%	2.93	0.195	0	0	0	1	2	2,907.33	232	258	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	1.54%	KHSPSPPPPTPTESR	R	K	95.00%	4.63	0.487	0	2	2	0	2	1,774.76	326	340	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	1.54%	KHSPSPPPPTPTESRK	R	K	95.00%	3.5	0.245	0	0	1	0	2	1,902.85	326	341	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	6	0.04%	1.54%	RKHSPSPPPPTPTESR	K	K	95.00%	4.1	0.428	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216LR_PC1_03	N-acetyltransferase-like protein	IPI00300127	115,708.20	100.00%	1	1	1	0.01%	1.07%	TLSDDLDEAAK	K	E	95.00%	2.34	0.382	0	1	0	0	2	1,257.52	932	942	TRUE	
SNU216LR_PC1_03	Epiplakin	IPI00010951	553,088.70	100.00%	2	3	3	0.02%	0.40%	QVSASELHTSGILGPETLR	R	D	95.00%	3.35	0.436	0	1	1	0	2	2,075.02	2689	2707	TRUE	
SNU216LR_PC1_03	Epiplakin	IPI00010951	553,088.70	100.00%	2	3	3	0.02%	0.40%	RQVSASELHTSGILGPETLR	R	D	95.00%	3.75	0.313	0	0	1	0	2	2,231.12	2688	2707	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nance-Horan syndrome protein	IPI00375220,IPI00554497,IP	160,797.50	99.20%	2	2	2	0.01%	2.58%	APSAGLEEVAQPESVDVITSQSDSPTR	K	A	83.00%	5.58	0.0099	0	0	1	0	2	2,850.30	1129	1155	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nance-Horan syndrome protein	IPI00375220,IPI00554497,IP	160,797.50	99.20%	2	2	2	0.01%	2.58%	RVQQEIDSDESPVAR	R	E	95.00%	2.93	0.373	0	1	0	0	2	1,808.82	231	245	TRUE	
SNU216LR_PC1_03	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	1	1	1	0.01%	1.10%	VTQHESDNENEIQIQNK	R	L	95.00%	4.79	0.384	0	1	0	0	2	2,105.91	62	78	TRUE	
SNU216LR_PC1_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	3.85	0.242	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216LR_PC1_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	4.5	0.575	0	0	1	1	2	3,209.61	696	726	TRUE	
SNU216LR_PC1_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.39	0.027	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216LR_PC1_03	Midasin	IPI00167941	632,826.30	100.00%	4	5	5	0.03%	1.22%	AEENTDQASPQEDYAGFER	K	L	95.00%	4.56	0.547	0	1	1	0	2	2,236.87	4530	4548	TRUE	
SNU216LR_PC1_03	Midasin	IPI00167941	632,826.30	100.00%	4	5	5	0.03%	1.22%	KNEKAEENTDQASPQEDYAGFER	R	L	95.00%	3.14	0.208	0	0	1	0	2	2,736.14	4526	4548	TRUE	
SNU216LR_PC1_03	Midasin	IPI00167941	632,826.30	100.00%	4	5	5	0.03%	1.22%	MHDGELEEQEEDDEKSDSEGGDLDK	K	H	95.00%	5.65	0.586	0	0	1	0	2	2,916.09	4737	4761	TRUE	
SNU216LR_PC1_03	Midasin	IPI00167941	632,826.30	100.00%	4	5	5	0.03%	1.22%	NGGEDTDNEEGEEENPLEIK	K	E	95.00%	4.25	0.495	0	1	0	0	2	2,297.89	4893	4912	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	5.51%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.7	0.37	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC1_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	5.51%	TQTPPLGQTPQLGLK	R	T	95.00%	2.44	0.308	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC1_03	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	4	0.02%	3.48%	KVSLVLEK	R	M	95.00%	1.97	0.247	0	1	0	0	2	995.5538	336	343	TRUE	
SNU216LR_PC1_03	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	4	0.02%	3.48%	QPAQSQNLSPLSGFSR	K	S	95.00%	3.11	0.391	0	1	0	0	2	1,796.83	250	265	TRUE	
SNU216LR_PC1_03	137 kDa protein	IPI00218136,IPI00515042	137,400.40	100.00%	3	4	4	0.02%	3.48%	SHSQASLAGPGPVDPSNR	R	S	95.00%	4.36	0.461	0	1	1	0	2	1,856.83	135	152	TRUE	
SNU216LR_PC1_03	PHD finger protein 3	IPI00170770	229,481.10	100.00%	2	2	3	0.02%	2.89%	KHSDNEAESIADALSSTSNILASEFFEEEKQE	R	S	95.00%	6.44	0.445	0	0	0	2	2	3,947.77	1146	1180	TRUE	
SNU216LR_PC1_03	PHD finger protein 3	IPI00170770	229,481.10	100.00%	2	2	3	0.02%	2.89%	STFSPARPPEMPGTVEVESTFLAR	K	L	95.00%	3.66	0.35	0	0	1	0	2	2,686.26	1181	1204	TRUE	
SNU216LR_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	9	9	0.06%	4.67%	GDRDESDDGGVAQR	R	M	95.00%	2.34	0.36	0	1	0	0	2	1,556.60	544	557	TRUE	
SNU216LR_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	9	9	0.06%	4.67%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	3.75	0.468	0	1	1	1	2	2,030.85	281	298	TRUE	
SNU216LR_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	9	9	0.06%	4.67%	HEDGTQSDSEDPLAK	K	A	95.00%	3.12	0.433	0	1	1	0	2	1,708.67	284	298	TRUE	
SNU216LR_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	9	9	0.06%	4.67%	LGDASDTEAADGER	R	G	95.00%	2.36	0.307	0	1	0	0	2	1,486.57	1061	1074	TRUE	
SNU216LR_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	9	9	0.06%	4.67%	RRSPQEGPTWSR	R	G	95.00%	3.11	0.245	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216LR_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	9	9	0.06%	4.67%	SQSFTHSPSGDPK	R	A	93.00%	2.17	0.238	0	1	0	0	2	1,454.59	349	361	TRUE	
SNU216LR_PC1_03	Neurogenic locus notch homolog protein 2 precu	IPI00297655,IPI00744005	265,395.10	99.80%	1	1	1	0.01%	0.65%	AEDEALLSEEDDPIDR	K	R	95.00%	3.16	0.36	0	1	0	0	2	1,896.78	1771	1786	TRUE	
SNU216LR_PC1_03	Ankyrin repeat and SAM domain-containing prote	IPI00395663	122,978.80	99.50%	2	2	2	0.01%	1.77%	KSTEHMK	R	K	90.50%	1.12	0.242	1	0	0	0	2	956.3908	969	975	TRUE	
SNU216LR_PC1_03	Ankyrin repeat and SAM domain-containing prote	IPI00395663	122,978.80	99.50%	2	2	2	0.01%	1.77%	SPSFASEWDEIEK	K	I	95.00%	2.8	0.341	0	1	0	0	2	1,604.65	660	672	TRUE	
SNU216LR_PC1_03	Isoform 1 of Telomerase-binding protein EST1A	IPI00015793	160,466.50	99.80%	2	2	2	0.01%	2.68%	KQHEEFDLSPDQWR	K	K	95.00%	3.4	0.153	0	0	1	0	2	1,894.81	823	836	TRUE	
SNU216LR_PC1_03	Isoform 1 of Telomerase-binding protein EST1A	IPI00015793	160,466.50	99.80%	2	2	2	0.01%	2.68%	TQTPQLHFLDTDDEVSPTSWGDSR	K	Q	95.00%	5.03	0.355	0	0	1	0	2	2,812.21	469	492	TRUE	
SNU216LR_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	11	0.07%	3.42%	EEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.63	0.541	0	1	0	0	2	2,439.00	15	38	TRUE	
SNU216LR_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	11	0.07%	3.42%	REEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.19	0.453	0	0	2	0	2	2,595.10	14	38	TRUE	
SNU216LR_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	11	0.07%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	3.96	0.467	0	0	4	1	2	2,831.17	13	38	TRUE	
SNU216LR_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	11	0.07%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.37	0.509	0	2	1	0	2	1,971.82	39	56	TRUE	
SNU216LR_PC1_03	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	LHGSAFRPSLPAPESPGLPAHPSNPQLPEAR	R	P	95.00%	4.55	0.502	0	0	0	1	2	3,307.64	1334	1364	TRUE	
SNU216LR_PC1_03	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	RPSSVGELASLGQELQAITTATTPSLDSEGQI	R	S	92.80%	6.49	0.0042	0	0	1	0	2	3,789.85	1246	1281	TRUE	
SNU216LR_PC1_03	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	SISLGDSEGPIVATLAQPLR	R	R	95.00%	3.95	0.521	0	1	1	0	2	2,104.07	1226	1245	TRUE	
SNU216LR_PC1_03	WD repeat domain 62	IPI00470483	165,886.10	100.00%	4	5	5	0.03%	6.65%	TRLSTASEETVQNR	R	V	84.40%	2.13	0.215	0	1	0	0	2	1,671.77	46	59	TRUE	
SNU216LR_PC1_03	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	2	3	3	0.02%	2.45%	KPNIFYSGPASPARPR	K	Y	95.00%	3.4	0.302	0	1	1	0	2	1,837.91	317	332	TRUE	
SNU216LR_PC1_03	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	2	3	3	0.02%	2.45%	QNSTLVGDKRSDPEQNEK	K	L	94.00%	2.6	0.172	0	0	1	0	2	2,124.96	1129	1146	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	AASPSPQSVR	K	R	95.00%	1.69	0.417	1	1	0	0	2	1,159.45	745	754	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	APQTSSSPPPVR	R	R	95.00%	2.6	0.34	0	2	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	APQTSSSPPPVRR	R	G	81.30%	1.85	0.221	0	1	0	0	2	1,459.71	699	711	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	EARSPQPNK	R	R	85.40%	2.31	0.0992	0	1	0	0	2	1,106.50	681	689	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	EKTPELPEPSVK	K	V	95.00%	2.44	0.37	0	1	0	0	2	1,433.69	218	229	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	HRPSPPATPPPK	R	T	95.00%	2.95	0.371	0	2	3	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	KEKTPELPEPSVK	K	V	95.00%	3.8	0.324	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	KETESEAEDNLDDLEK	K	H	95.00%	4.68	0.452	0	4	2	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	5.59	0.5	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.78	0.431	0	0	3	2	2	2,791.42	772	797	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	KVELSESEEDKGGK	R	M	95.00%	2.48	0.201	0	1	0	0	2	1,694.69	454	467	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	RESPSPAPKPR	K	K	95.00%	2.79	0.287	0	1	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	RTASPPPPPKR	R	R	95.00%	1.93	0.301	0	0	1	0	2	1,283.66	622	632	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	RYSPSPPPK	R	R	90.00%	1.94	0.184	0	1	0	0	2	1,188.49	612	620	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	SPSPAPPPR	R	R	95.00%	2.16	0.411	1	1	0	0	2	985.4504	569	577	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	SVSGSPEPAAK	R	K	95.00%	1.48	0.183	1	0	0	0	2	1,109.49	761	771	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	TASPPPPPK	R	R	95.00%	1.72	0.414	1	1	0	0	2	1,051.43	623	631	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	TASPPPPPKR	R	R	80.20%	1.77	0.197	0	1	0	0	2	1,127.56	623	632	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	TPTPPPR	R	R	95.00%	1.1	0.359	1	0	0	0	2	925.3582	581	587	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	TRHSPTPQQSNR	K	T	95.00%	3.48	0.362	0	0	1	0	2	1,488.67	406	417	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.64	0.517	0	1	1	1	2	1,977.99	247	263	TRUE	
SNU216LR_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	22	32	43	0.26%	22.70%	VSVSPGR	R	T	94.10%	1.25	0.289	1	0	0	0	2	861.3267	423	429	TRUE	
SNU216LR_PC1_03	146 kDa protein	IPI00215638,IPI00742905	140,884.40	100.00%	1	2	2	0.01%	3.35%	SEEVPAFGVASPPPLTDTPDTTANAEGDLPT	K	A	95.00%	5.52	0.0844	0	0	1	1	2	4,489.15	77	120	TRUE	
SNU216LR_PC1_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.63	0.382	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC1_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.18	0.483	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC1_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	2.92	0.323	0	1	0	0	2	1,814.83	362	377	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	5.35	0.0911	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC1_03	Ash1	IPI00020546,IPI00642422	332,795.50	99.80%	2	2	2	0.01%	1.38%	RHSFEHVSLIPPETSTVLSSLK	R	E	95.00%	3.87	0.444	0	0	0	1	2	2,544.29	1224	1245	TRUE	
SNU216LR_PC1_03	Ash1	IPI00020546,IPI00642422	332,795.50	99.80%	2	2	2	0.01%	1.38%	SIDAVIATASAPPSSSPGR	K	S	95.00%	4.59	0.0095	0	1	0	0	2	1,863.88	1733	1751	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	AAKLSEGSQPAEEEEDQETPSR	R	N	95.00%	4.11	0.587	0	1	1	0	2	2,468.05	236	257	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	AESPAEKVPEESVLPLVQK	K	S	95.00%	4.68	0.481	0	1	1	0	2	2,130.07	488	506	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	ASLVALPEQTASEEETPPPLLTK	K	E	95.00%	3.88	0.366	0	1	0	0	2	2,501.24	399	421	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	EASSPPPHPQLHSEEEIEPMEGPAPPVLIQLS	K	E	95.00%	4.57	0.438	0	0	0	1	2	4,490.09	422	462	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.99	0.458	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	GVPAGNSDTEGGQPGRK	K	R	95.00%	2.47	0.277	0	1	0	0	2	1,706.75	832	848	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	LSEGSQPAEEEEDQETPSR	K	N	95.00%	3.25	0.438	0	3	0	0	2	2,277.84	239	257	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.31	0.379	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	SLSPGVSR	K	D	95.00%	1.58	0.351	0	1	0	0	2	882.4081	655	662	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	SSSISEEKGDSDDEKPR	K	K	95.00%	1.95	0.254	0	1	0	0	2	2,025.77	206	222	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	TAQVPSPPR	R	G	95.00%	2.17	0.411	1	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	TTSPLEEEER	K	E	95.00%	2.39	0.351	1	1	0	0	2	1,270.52	363	372	TRUE	
SNU216LR_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	18	21	0.13%	15.00%	TTSPLEEEEREIK	K	S	95.00%	2.28	0.239	0	1	0	0	2	1,640.74	363	375	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	HGAPSPSHPISAPQAAAAAALR	K	R	95.00%	4.37	0.419	0	0	1	0	2	2,158.06	1077	1098	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	ITPPAAKPGSPQAK	R	S	95.00%	3.1	0.366	0	1	2	0	2	1,442.74	669	682	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	SAQGSSSPVPSMVQK	R	S	95.00%	2.55	0.36	0	1	0	0	2	1,569.70	651	665	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	SAQGSSSPVPSMVQKSPR	R	I	95.00%	3.45	0.366	0	1	1	0	2	1,909.88	651	668	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	SHLVHGSSPGVMGTSVATSASK	K	I	95.00%	3.53	0.309	0	0	1	0	2	2,177.01	1038	1059	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	SPGSTPTTPTSSQAPQK	K	L	95.00%	3.67	0.481	0	2	0	0	2	1,751.79	430	446	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	SPRITPPAAKPGSPQAK	K	S	95.00%	2.57	0.25	0	0	1	0	2	1,862.89	666	682	TRUE	
SNU216LR_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	8	10	12	0.07%	4.88%	VPAKLSPMK	K	Q	92.60%	1.77	0.25	0	1	0	0	2	1,050.54	935	943	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	ADGATSDDLDLHDDR	K	L	95.00%	2.89	0.419	0	0	1	0	2	1,695.65	805	819	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	AEASSPVPYLSPETNPASSTSAVNHNVNLTI	K	L	92.40%	6.22	0.0111	0	0	1	0	2	3,503.64	923	955	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.68	0.549	0	1	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	4.43	0.405	0	1	2	0	2	2,290.07	266	286	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	ATLLNVPDLSDSIHSANASERDDISEIQSLAS	R	S	95.00%	5.7	0.0884	0	0	0	1	2	4,000.85	266	302	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	DDISEIQSLASDHSGR	R	S	95.00%	3.39	0.401	0	2	1	0	2	1,809.77	287	302	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	95.00%	3.99	0.36	0	0	0	1	2	3,211.37	883	909	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	HTSDYEDTDTEGGAYTDQELDETLNDEVGT	R	S	95.00%	7.62	0.142	0	0	1	1	2	4,251.75	839	876	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	IDSPGFKPASQQK	R	A	95.00%	2.99	0.287	0	1	1	0	2	1,482.70	910	922	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	ISKPGAVSTPVK	K	H	95.00%	2.37	0.29	0	1	1	0	2	1,263.67	346	357	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.12	0.421	0	0	2	1	2	3,571.59	111	140	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	LEEPTPAPSTSYSPQADSLR	R	T	95.00%	4.79	0.0528	0	1	0	0	2	2,226.00	956	975	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	SEPSDHSRHSPQQPSNGSLR	R	S	95.00%	3.14	0.281	0	0	1	0	2	2,282.99	320	339	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	SFENKPPAHIAASHLSEPAKPAHSQNQSNF	R	G	95.00%	5.16	0.426	0	0	0	1	2	3,960.83	1366	1401	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	4.24	0.382	0	0	1	1	2	3,866.70	877	909	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	SVASSQPAKPTK	R	V	95.00%	1.98	0.264	0	1	0	0	2	1,360.59	175	186	TRUE	
SNU216LR_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	17	25	29	0.18%	18.50%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.87	0.445	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216LR_PC1_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.81	0.482	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC1_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	3.02	0.207	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC1_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	4.39	0.522	0	2	0	0	2	1,960.90	609	626	TRUE	
SNU216LR_PC1_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	3.85	0.34	0	0	1	0	2	2,089.00	609	627	TRUE	
SNU216LR_PC1_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	6	0.04%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	6.57	0.628	0	1	2	0	2	2,992.36	1263	1291	TRUE	
SNU216LR_PC1_03	Histone acetyltransferase MYST3	IPI00023340,IPI00747970	225,055.20	98.70%	1	1	1	0.01%	1.30%	SKDEEEDEESDDADDTPILKPVSLLR	K	K	95.00%	4.48	0.332	0	0	1	0	2	3,025.34	1104	1129	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.88%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	3.91	0.316	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.88%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.64	0.43	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.88%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.71	0.368	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.88%	MYPPRSPK	R	S	95.00%	1.7	0.335	0	1	0	0	2	1,055.47	444	451	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.88%	QGSGRESPSLASR	R	E	95.00%	2.41	0.334	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216LR_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.89	0.544	0	0	2	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	ETPHSPGVEDAPIAK	R	V	95.00%	3.01	0.438	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.61	0.474	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	6.71	0.511	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216LR_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	SEVQQPVHPKPLSPDSR	K	A	85.80%	2.52	0.153	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.52	0.47	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	10	13	0.08%	14.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	3.65	0.267	0	0	2	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	EHSPDSDAYNSGDDKNEK	R	H	95.00%	3.46	0.184	0	0	1	0	2	2,087.78	843	860	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	EVSPEVVR	K	S	95.00%	1.86	0.352	0	1	0	0	2	994.4605	196	203	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	GDSDISDEEAAQQSK	K	K	95.00%	2.98	0.449	0	1	0	0	2	1,659.64	1012	1026	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	GNIETTSEDGQVFSPK	R	K	95.00%	3.48	0.349	0	2	0	0	2	1,788.77	980	995	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	GPRTPSPPPPIPEDIALGK	K	K	95.00%	4.31	0.362	0	0	1	0	2	2,099.00	260	278	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	HHSSSSQSGSSIQRHSPSPR	R	R	92.80%	2.62	0.18	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	KEDTAFSDWSDEDVPDR	K	T	95.00%	3.05	0.323	0	1	0	0	2	2,091.82	1059	1075	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	KGPRTPSPPPPIPEDIALGK	K	K	95.00%	4.91	0.325	0	0	1	0	2	2,227.09	259	278	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	KTSAVSSPLLDQQR	R	N	95.00%	2.8	0.334	0	2	0	0	2	1,609.79	236	249	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	SASPYPSHSLSSPQR	R	K	95.00%	2.71	0.363	0	2	0	0	2	1,760.70	370	384	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	SKGDSDISDEEAAQQSK	K	K	95.00%	3.72	0.312	0	3	0	0	2	1,874.77	1010	1026	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	SKLSPSPSLRK	R	S	86.50%	2.12	0.216	0	0	1	0	2	1,279.68	204	214	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	SLSPSHLTEDR	R	Q	95.00%	2.22	0.39	0	1	1	0	2	1,321.58	875	885	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	STSPAGQHHSPISSR	R	H	95.00%	2.76	0.269	0	1	1	0	2	1,628.72	316	330	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	TPSPPPPIPEDIALGK	R	K	95.00%	2.65	0.214	0	1	0	0	2	1,788.82	263	278	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	TPSPPPPIPEDIALGKK	R	Y	95.00%	3.93	0.398	0	1	1	0	2	1,916.92	263	279	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	20	25	0.15%	11.80%	YRNEGSPSPRQSPK	R	R	95.00%	2.1	0.374	0	1	0	0	2	1,842.70	826	839	TRUE	
SNU216LR_PC1_03	Transcription repressor	IPI00382733	82,672.30	99.80%	1	2	4	0.02%	2.26%	RGSGDTSISIDTEASIR	R	E	95.00%	3.18	0.392	0	2	2	0	2	1,844.84	86	102	TRUE	
SNU216LR_PC1_03	CDNA FLJ44035 fis, clone TESTI4028612	IPI00418991,IPI00742090	185,739.60	99.70%	2	2	2	0.01%	4.41%	KTEALQVATTSPTANTTGTATTSSTTVGAVK	K	Q	83.60%	3.15	0.204	0	0	0	1	2	3,075.51	1262	1292	TRUE	
SNU216LR_PC1_03	CDNA FLJ44035 fis, clone TESTI4028612	IPI00418991,IPI00742090	185,739.60	99.70%	2	2	2	0.01%	4.41%	PSSTTPTPLVSETGGNSPSDKVDNELK	K	N	95.00%	4.19	0.468	0	0	1	0	2	2,837.31	1195	1221	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	99.50%	2	2	3	0.02%	2.81%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	89.40%	4.53	0.0638	0	0	1	0	2	3,103.27	670	695	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	99.50%	2	2	3	0.02%	2.81%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	3.68	0.582	0	2	0	0	2	2,274.87	677	695	TRUE	
SNU216LR_PC1_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	2	3	5	0.03%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	2.65	0.372	0	1	0	0	2	1,628.71	298	311	TRUE	
SNU216LR_PC1_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	2	3	5	0.03%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	3.86	0.507	0	2	2	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC1_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	5	6	0.04%	6.79%	HSTSPSLDSEYNEELNEDDSQSDEKDQDAII	R	K	95.00%	5.24	0.411	0	0	1	1	2	4,265.74	1084	1120	TRUE	
SNU216LR_PC1_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	5	6	0.04%	6.79%	IIYDSDSESEETLQVK	R	N	84.40%	3.33	0.0238	0	1	0	0	2	1,935.85	65	80	TRUE	
SNU216LR_PC1_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	5	6	0.04%	6.79%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	5.27	0.523	0	0	2	1	2	2,798.45	152	176	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 11	IPI00007411,IPI00161614	163,031.60	99.80%	2	2	2	0.01%	1.63%	NVIPDTPPSTPLVPSR	R	A	95.00%	2.39	0.392	0	1	0	0	2	1,769.88	1095	1110	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 11	IPI00007411,IPI00161614	163,031.60	99.80%	2	2	2	0.01%	1.63%	SVSPTFLNPSDENLK	R	T	95.00%	3.51	0.478	0	1	0	0	2	1,727.79	1240	1254	TRUE	
SNU216LR_PC1_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.80%	2	3	4	0.02%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	5.75	0.44	0	0	2	1	2	3,734.84	125	160	TRUE	
SNU216LR_PC1_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.80%	2	3	4	0.02%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	2.85	0.26	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216LR_PC1_03	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	KVSPIKINLK	R	N	95.00%	2.89	0.484	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216LR_PC1_03	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	3.94	0.512	0	1	0	0	2	1,941.82	934	951	TRUE	
SNU216LR_PC1_03	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	NRPDSGVEEAWK	R	I	95.00%	3.42	0.386	0	1	0	0	2	1,467.63	883	894	TRUE	
SNU216LR_PC1_03	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	SIVVIHPDTGR	R	E	95.00%	2.55	0.196	0	1	0	0	2	1,273.63	1657	1667	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	ALSSAVQASPTSPGGSPSSPSSGQR	K	S	95.00%	4.66	0.0108	0	1	0	0	2	2,460.04	3500	3524	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	AQGQESDSSETSVR	K	G	95.00%	2.79	0.326	0	1	0	0	2	1,560.62	1051	1064	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	GPGEPDSPTPLHPPTPPILSTDR	K	S	95.00%	3.12	0.24	0	0	1	0	2	2,458.17	1831	1853	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	KQTSAPAEPFSSSSPTPLFPWFTPGSQTER	R	G	83.50%	4.05	0.0727	0	0	1	0	2	3,345.55	818	847	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	NDRDQHTDSTQSANSSPDEDTEVK	R	T	95.00%	6.92	0.179	0	0	1	0	2	2,836.06	2377	2400	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	NSSTPGLQVPVSPTVPIQNQK	R	Y	95.00%	3.4	0.393	0	1	0	0	2	2,271.14	3025	3045	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	QAAKPPDLNPETEESIPSRSSPEGPDPPVLTE	R	Q	95.00%	4.37	0.298	0	0	0	1	2	3,778.81	1665	1699	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	SASPSVPGPTKPKPK	R	T	95.00%	3.85	0.447	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	SEPRSPSHSMR	R	T	95.00%	2.05	0.382	0	0	1	0	2	1,350.56	746	756	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	SREDSPELNPPPGIEDNR	R	Q	95.00%	3.87	0.411	0	1	1	0	2	2,101.92	1854	1871	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	SSIAGSEDAEPLAPPIKPIKPVTR	K	N	95.00%	2.97	0.364	0	0	1	0	2	2,553.33	1114	1137	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	SSPEGPDPPVLTEVSK	R	Q	95.00%	2.93	0.395	0	1	0	0	2	1,718.79	1684	1699	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	TIAHSPTSFTESSSK	R	E	95.00%	3.64	0.178	0	1	1	0	2	1,659.73	2094	2108	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	14	17	17	0.11%	7.23%	YVPNSTDSPGPSQISNAAVQTTPPHLKPATI	K	L	95.00%	3.43	0.265	0	0	0	1	2	3,412.64	3046	3077	TRUE	
SNU216LR_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	7	7	0.04%	12.50%	DLDEEGSEKELHENVLDK	K	E	94.20%	2.73	0.162	0	0	1	0	2	2,178.94	573	590	TRUE	
SNU216LR_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	7	7	0.04%	12.50%	EFDEDSDEKEEEEDTVEK	R	V	95.00%	4.9	0.412	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	7	7	0.04%	12.50%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.64	0.447	0	0	1	0	2	2,837.11	672	695	TRUE	
SNU216LR_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	7	7	0.04%	12.50%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.39	0.42	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	7	7	0.04%	12.50%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.21	0.393	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216LR_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	7	7	0.04%	12.50%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.25	0.326	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC1_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.3	0.0734	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC1_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	4.19	0.434	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216LR_PC1_03	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	1	1	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	4.75	0.353	0	0	1	0	2	3,106.31	797	824	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	6	7	0.04%	2.10%	AAMYDIISSPSKDSTK	K	L	95.00%	4.23	0.033	0	1	0	0	2	1,793.80	342	357	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	6	7	0.04%	2.10%	AITSLLGGGSPK	K	N	95.00%	2.42	0.191	1	1	0	0	2	1,180.60	2649	2660	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	6	7	0.04%	2.10%	DVPPDILLDSPER	R	K	95.00%	2.21	0.252	0	2	0	0	2	1,545.72	309	321	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	6	7	0.04%	2.10%	DVPPDILLDSPERK	R	Q	95.00%	2.51	0.236	0	1	0	0	2	1,673.82	309	322	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	6	7	0.04%	2.10%	NNTAAETEDDESDGEDR	K	G	95.00%	2.76	0.234	0	1	0	0	2	1,947.67	2661	2677	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	8	0.05%	3.92%	EYDSGDTDEIIAMK	R	K	95.00%	2.75	0.313	0	2	0	0	2	1,666.66	249	262	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	8	0.05%	3.92%	EYDSGDTDEIIAMKK	R	N	95.00%	2.85	0.397	0	1	0	0	2	1,874.72	249	263	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	8	0.05%	3.92%	FLETDSEEEQEEVNEK	R	K	95.00%	3.24	0.478	0	1	0	0	2	2,114.77	759	774	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	8	0.05%	3.92%	NDREYDSGDTDEIIAMK	R	K	95.00%	2.58	0.404	0	2	0	0	2	2,131.79	246	262	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	8	0.05%	3.92%	NDREYDSGDTDEIIAMKK	R	N	95.00%	3.14	0.245	0	0	1	0	2	2,179.92	246	263	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	8	0.05%	3.92%	NSSPGEASLLEK	R	E	95.00%	2.38	0.369	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	AGSSTPGDAPPAVAEVQGR	R	S	95.00%	3.59	0.551	0	2	1	0	2	1,846.83	2876	2894	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	DGGSGNSTIIVSR	R	S	95.00%	2.59	0.477	0	2	0	0	2	1,422.57	2350	2362	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	DLSMSEEDQMMR	R	A	95.00%	2.82	0.509	0	1	0	0	2	1,551.55	1357	1368	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	ESQLAHIKDEPPPLSPAPLTPATPSSLDPFFSF	R	E	95.00%	3.75	0.243	0	0	3	2	2	3,702.75	3896	3928	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	GSGTASDDEFENLR	R	I	95.00%	3.14	0.484	0	2	0	0	2	1,577.61	1893	1906	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	LGSSGLGSASSIQAAVR	R	Q	95.00%	3.2	0.403	0	1	0	0	2	1,640.80	3741	3757	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	LLGPSAAADILQLSSSLPLQSR	R	G	95.00%	3.63	0.386	0	0	1	0	2	2,317.22	2571	2592	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	5.78	0.142	0	0	2	0	2	3,447.39	3796	3826	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	92.70%	6.49	0.0038	0	0	1	0	2	3,624.56	3796	3828	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	RRSSDPLGDTASNLGSAVDELMR	R	H	95.00%	5.16	0.426	0	0	1	0	2	2,527.16	646	668	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	RSSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.77	0.52	0	1	1	0	2	2,371.06	647	668	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	SDGSGESAQPPEDSSPPASSESSSTR	R	D	95.00%	3.73	0.292	0	1	1	0	2	2,616.02	2895	2920	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	SGEDESQEDVLMDEAPSNLSQASTLQANR	R	E	95.00%	4.94	0.423	0	0	1	0	2	3,201.35	2363	2391	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	SHHAASTTTAPTPAAR	R	S	95.00%	3.3	0.519	0	1	0	0	2	1,656.75	1075	1090	TRUE	
SNU216LR_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	15	20	27	0.17%	5.90%	SSDPLGDTASNLGSAVDELMR	R	H	95.00%	5.05	0.585	0	1	1	0	2	2,214.96	648	668	TRUE	
SNU216LR_PC1_03	Pseudogene candidate	IPI00396063	213,689.90	98.50%	1	1	1	0.01%	0.94%	HKSDNETNLQQQVVWGNR	R	N	94.60%	3.17	0.133	0	0	1	0	2	2,233.01	1056	1073	TRUE	
SNU216LR_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	6	9	9	0.06%	4.68%	RSSGFISELPSEEGK	K	K	95.00%	3.49	0.36	0	1	1	0	2	1,702.77	185	199	TRUE	
SNU216LR_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	6	9	9	0.06%	4.68%	RSWGQQAQEYQEQK	R	Q	95.00%	2.79	0.17	0	1	0	0	2	1,845.79	504	517	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	6	9	9	0.06%	4.68%	SERPPTILMTEEPSSPK	K	G	95.00%	4.27	0.403	0	1	1	0	2	1,978.92	299	315	TRUE	
SNU216LR_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	6	9	9	0.06%	4.68%	SSGFISELPSEEGK	R	K	95.00%	2.58	0.249	0	1	0	0	2	1,546.67	186	199	TRUE	
SNU216LR_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	6	9	9	0.06%	4.68%	SWGQQAQEYQEQK	R	Q	95.00%	3.23	0.415	0	1	0	0	2	1,689.69	505	517	TRUE	
SNU216LR_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	6	9	9	0.06%	4.68%	TASRPDDIPDSPSSPK	R	V	95.00%	3.71	0.49	0	1	1	0	2	1,749.77	452	467	TRUE	
SNU216LR_PC1_03	FYVE finger-containing phosphoinositide kinase	IPI00396145,IPI00457244	237,111.70	99.80%	2	2	2	0.01%	1.43%	GTAGKSPDLSSQK	R	R	95.00%	2.47	0.307	0	1	0	0	2	1,355.62	1749	1761	TRUE	
SNU216LR_PC1_03	FYVE finger-containing phosphoinositide kinase	IPI00396145,IPI00457244	237,111.70	99.80%	2	2	2	0.01%	1.43%	SSSPIRLPEMSGGQTNR	K	T	95.00%	3.88	0.293	0	0	1	0	2	1,896.86	1712	1728	TRUE	
SNU216LR_PC1_03	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	2	2	2	0.01%	2.12%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.85	0.147	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216LR_PC1_03	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	2	2	2	0.01%	2.12%	SAFTPATATGSSPSPVLGQGEKVEGLQAQA	R	A	95.00%	6.93	0.0303	0	0	1	0	2	3,681.80	891	925	TRUE	
SNU216LR_PC1_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.80%	1	1	2	0.01%	1.68%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.76	0.477	0	2	0	0	2	1,896.75	495	510	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ras-associated and pleckstrin homol	IPI00656088	141,415.10	100.00%	3	3	3	0.02%	4.52%	LTQAEISEQPTMATVVPQVPTSPK	R	S	95.00%	3.32	0.411	0	0	1	0	2	2,632.29	1187	1210	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ras-associated and pleckstrin homol	IPI00656088	141,415.10	100.00%	3	3	3	0.02%	4.52%	MESMNRPYTSLVPPLSPQPK	R	I	95.00%	3.4	0.249	0	0	1	0	2	2,352.11	649	668	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ras-associated and pleckstrin homol	IPI00656088	141,415.10	100.00%	3	3	3	0.02%	4.52%	TSSPGGKKPPPTPQR	K	N	95.00%	2.89	0.254	0	0	1	0	2	1,614.80	1017	1031	TRUE	
SNU216LR_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	6	7	0.04%	3.83%	ASESSSEEKDDYEIFVK	R	V	95.00%	2.46	0.254	0	0	1	0	2	2,042.85	1779	1795	TRUE	
SNU216LR_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	6	7	0.04%	3.83%	DIHLDLPSNNNLVSKDTEEPLPVKESDQTLA	K	E	91.00%	6.81	0	0	0	0	1	2	4,121.07	1663	1699	TRUE	
SNU216LR_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	6	7	0.04%	3.83%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	5.62	0.563	0	0	2	0	2	2,461.21	1678	1699	TRUE	
SNU216LR_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	6	7	0.04%	3.83%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.21	0.215	0	0	0	1	2	3,457.49	2117	2144	TRUE	
SNU216LR_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	6	7	0.04%	3.83%	ESDQTLAALLSPK	K	E	95.00%	2.81	0.285	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216LR_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	6	7	0.04%	3.83%	SVESTSPEPSK	K	I	95.00%	1.9	0.25	0	1	0	0	2	1,227.51	278	288	TRUE	
SNU216LR_PC1_03	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	99.80%	2	2	2	0.01%	2.37%	ESDKEDGRESPSYDTPSQR	K	V	95.00%	3.89	0.276	0	0	1	0	2	2,262.91	75	93	TRUE	
SNU216LR_PC1_03	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	99.80%	2	2	2	0.01%	2.37%	KHSDPHLLER	K	N	95.00%	2.61	0.391	0	0	1	0	2	1,311.62	240	249	TRUE	
SNU216LR_PC1_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	99.10%	1	2	2	0.01%	3.95%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	3.34	0.27	0	0	1	1	2	2,450.06	90	113	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	AQSYDIQAWK	R	K	95.00%	2.7	0.404	0	1	0	0	2	1,289.56	1313	1322	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	AQSYDIQAWKK	R	Q	95.00%	2.57	0.304	0	1	0	0	2	1,417.65	1313	1323	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	KVLSDSEDEEKDADVPGTSTR	K	K	95.00%	4.36	0.358	0	1	0	0	2	2,438.00	1278	1298	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	KVNEEKDGPISPK	K	K	95.00%	2.73	0.191	0	0	1	0	2	1,520.74	901	913	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	RTAFYNEDDSEEEQR	R	Q	95.00%	3.51	0.476	0	1	1	0	2	1,968.76	1774	1788	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	TAFYNEDDSEEEQR	R	Q	95.00%	3.38	0.542	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.94	0.507	0	1	1	0	2	2,309.91	1279	1298	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	8	10	10	0.06%	3.29%	VNEEKDGPISPK	K	K	95.00%	2.63	0.269	0	1	0	0	2	1,392.64	902	913	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	99.80%	2	2	3	0.02%	1.85%	DVDDGSGSPHSPHQLSSK	R	S	95.00%	2.98	0.261	0	2	0	0	2	1,929.80	2022	2039	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	99.80%	2	2	3	0.02%	1.85%	KEKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	4.24	0.31	0	0	0	1	2	2,902.36	1996	2021	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7.12	0.638	0	0	2	0	2	3,607.53	769	801	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.05	0.408	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	EIPSATQSPISK	K	K	91.30%	1.89	0.24	0	1	0	0	2	1,417.60	1156	1167	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	KGVLGKSPLSALAR	K	K	95.00%	2.68	0.441	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.03	0.309	0	0	1	0	2	2,300.10	1254	1275	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.88	0.395	0	2	2	0	2	2,172.01	1255	1275	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	RKSEDGTPAEDGTPAATGGSQPPSMGR	K	K	95.00%	3.82	0.23	0	0	1	0	2	2,737.19	1184	1210	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	12	0.07%	10.60%	SPAPGAPTRSPSTPAK	K	S	95.00%	3.71	0.507	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216LR_PC1_03	Protein kinase C iota type	IPI00016639	67,259.10	99.80%	1	2	2	0.01%	6.64%	QVVPPFKPNISGEFGLDNFDSQFTNEPVQL	K	K	95.00%	3.86	0.282	0	0	1	1	2	4,470.08	525	563	TRUE	
SNU216LR_PC1_03	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	2	2	2	0.01%	5.25%	TSSAFVGKTPEASPEPK	K	D	95.00%	2.46	0.361	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216LR_PC1_03	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	2	2	2	0.01%	5.25%	TVGTPIASVPGSTNTGTVPGSEKDSDSMETI	R	T	95.00%	3.42	0.251	0	0	1	0	2	3,388.50	270	302	TRUE	
SNU216LR_PC1_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	3	0.02%	6.35%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	3.9	0.348	0	0	1	0	2	3,169.31	651	677	TRUE	
SNU216LR_PC1_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	3	0.02%	6.35%	DGTSPEEEIEIER	K	Q	95.00%	2.42	0.351	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216LR_PC1_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	3	0.02%	6.35%	TLDSGTSEIVKSPR	R	I	95.00%	2.78	0.293	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216LR_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	2.93%	KSAVSPSTFNTSIPTNAVSVVSSVDSAQASD	K	S	95.00%	7.27	0.0399	0	0	1	0	2	3,991.82	1732	1771	TRUE	
SNU216LR_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	2.93%	LELKASPNVEAPQPHR	R	H	95.00%	3.87	0.406	0	0	1	0	2	1,865.93	1256	1271	TRUE	
SNU216LR_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	2.93%	SAVSPSTFNTSIPTNAVSVVSSVDSAQASDM	K	S	95.00%	5.39	0.403	0	0	1	0	2	3,863.73	1733	1771	TRUE	
SNU216LR_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	2.93%	SQALGNQNSENEILLEGDDDTLSSVDEK	R	D	95.00%	2.95	0.184	0	0	1	0	2	3,100.35	2042	2069	TRUE	
SNU216LR_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	6	10	10	0.06%	8.21%	FVVIQNEDLGPASPLDSTFYR	R	S	95.00%	3.68	0.347	0	0	1	0	2	2,448.15	956	976	TRUE	
SNU216LR_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	6	10	10	0.06%	8.21%	GLQSLPTHDPSPLQR	K	Y	95.00%	2.74	0.454	0	1	1	0	2	1,725.83	1067	1081	TRUE	
SNU216LR_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	6	10	10	0.06%	8.21%	LLQETELVEPLTPSGAMPNQAQMR	R	I	95.00%	4.8	0.493	0	1	1	0	2	2,733.30	660	683	TRUE	
SNU216LR_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	6	10	10	0.06%	8.21%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	2.92	0.389	0	1	0	0	2	1,993.88	1024	1042	TRUE	
SNU216LR_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	6	10	10	0.06%	8.21%	SGGGDLTLGLEPSEEEAPRSPLAPSEGAGSD	R	G	95.00%	6.93	0.158	0	0	1	1	2	4,223.90	1024	1066	TRUE	
SNU216LR_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	6	10	10	0.06%	8.21%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.74	0.625	0	1	1	0	2	2,329.01	1043	1066	TRUE	
SNU216LR_PC1_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	99.80%	1	1	1	0.01%	2.05%	GDDDEESDEEAVKK	K	T	95.00%	2.87	0.194	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216LR_PC1_03	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	2	2	2	0.01%	2.84%	QGSFTIEKPSPNIPIELIPHINK	R	Q	95.00%	3.08	0.219	0	0	1	0	2	2,652.38	837	859	TRUE	
SNU216LR_PC1_03	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	2	2	2	0.01%	2.84%	SSPVNNHHSPGQTPTLGQPEAR	K	A	95.00%	4.18	0.289	0	0	1	0	2	2,391.08	1522	1543	TRUE	
SNU216LR_PC1_03	dedicator of cytokinesis 7	IPI00513791	239,427.70	100.00%	2	2	3	0.02%	2.28%	LPNTYPNSSSPGPGGLGGSVHYATMAR	R	S	93.40%	6.54	0.0048	0	0	1	0	2	2,768.25	855	881	TRUE	
SNU216LR_PC1_03	dedicator of cytokinesis 7	IPI00513791	239,427.70	100.00%	2	2	3	0.02%	2.28%	SLSNSNPDISGTPTSPDDEVR	R	S	95.00%	5.13	0.0015	0	2	0	0	2	2,267.97	896	916	TRUE	
SNU216LR_PC1_03	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	2	2	2	0.01%	1.32%	STPAPKEEEKVNEEQWSLR	R	E	95.00%	3.08	0.223	0	0	1	0	2	2,337.08	636	654	TRUE	
SNU216LR_PC1_03	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	2	2	2	0.01%	1.32%	TASPEDSDMPDHDLEPPR	K	F	95.00%	3.52	0.38	0	0	1	0	2	2,088.82	1306	1323	TRUE	
SNU216LR_PC1_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	7	0.04%	5.21%	ENPPVEDSSDEDDKR	R	N	95.00%	2.52	0.408	0	2	1	0	2	1,811.70	491	505	TRUE	
SNU216LR_PC1_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	7	0.04%	5.21%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.68	0.311	0	1	2	0	2	2,744.13	491	513	TRUE	
SNU216LR_PC1_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	7	0.04%	5.21%	HKSSLNSSPWSGLMALGNSR	K	H	95.00%	3.14	0.162	0	0	1	0	2	2,209.02	11	30	TRUE	
SNU216LR_PC1_03	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	3	3	3	0.02%	1.93%	EENPESDGEPVVEDGTSVK	K	T	95.00%	3.85	0.39	0	1	0	0	2	2,096.85	261	279	TRUE	
SNU216LR_PC1_03	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	3	3	3	0.02%	1.93%	TSSFTEQLDEGTPNR	R	E	95.00%	2.95	0.244	0	1	0	0	2	1,761.73	39	53	TRUE	
SNU216LR_PC1_03	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	3	3	3	0.02%	1.93%	VPSVESLFR	R	S	95.00%	2.18	0.309	0	1	0	0	2	1,113.53	69	77	TRUE	
SNU216LR_PC1_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	5	5	0.03%	4.30%	ALTDDSDENEEEDAFTDQK	K	I	95.00%	4.82	0.537	0	1	0	0	2	2,251.84	1207	1225	TRUE	
SNU216LR_PC1_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	5	5	0.03%	4.30%	DPAGDISVTPPAPAALPVALPTVASK	R	G	95.00%	3.56	0.489	0	0	1	0	2	2,535.31	327	352	TRUE	
SNU216LR_PC1_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	5	5	0.03%	4.30%	LFDDEASVDEPR	R	R	95.00%	2.28	0.303	0	1	0	0	2	1,472.59	639	650	TRUE	
SNU216LR_PC1_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	5	5	0.03%	4.30%	RLFDDEASVDEPR	R	R	84.40%	2.52	0.103	0	1	0	0	2	1,628.70	638	650	TRUE	
SNU216LR_PC1_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	5	5	5	0.03%	4.30%	VPDSPENELK	K	S	95.00%	2.13	0.227	0	1	0	0	2	1,207.52	519	528	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Myosin-10	IPI00397526	228,945.20	100.00%	1	2	2	0.01%	0.96%	QLHLEGASLELSDDDTESK	R	T	95.00%	3.91	0.332	0	1	1	0	2	2,166.94	1945	1963	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	DKDVTLSPVK	K	A	95.00%	2.67	0.282	0	1	0	0	2	1,181.58	1525	1534	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	EDKSPETGTAGGSSTASYSAGR	K	G	95.00%	2.87	0.36	0	0	1	0	2	2,195.91	2472	2493	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	EQESDEEEEEEEEDEPSGATTR	K	S	95.00%	4.75	0.662	0	1	0	0	2	2,633.94	2983	3004	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	4.12	0.391	0	0	1	0	2	2,619.03	2774	2794	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	QHYLSSEDEPDDNPDVLDSR	K	I	95.00%	3.56	0.292	0	0	1	0	2	2,490.93	2775	2794	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	RSLTVSDDAESSEPER	K	K	95.00%	2.66	0.357	0	1	0	0	2	1,857.79	2953	2968	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	RTSTPVIMEGVQEETDTR	R	D	95.00%	4.81	0.491	0	0	1	0	2	2,128.96	657	674	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	STADSGGEGLETAPK	K	S	95.00%	3.03	0.43	0	1	0	0	2	1,499.63	262	276	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	TDTGIVTVEQSPSSSK	K	L	91.20%	3.85	0.0284	0	1	0	0	2	1,715.77	2895	2910	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	TSVATSTEGKDKDVTLSPVK	K	A	95.00%	3.94	0.37	0	1	0	0	2	2,143.05	1515	1534	TRUE	
SNU216LR_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	11	11	13	0.08%	5.38%	YYSDSDDELTVEQR	K	R	95.00%	3.37	0.502	0	3	0	0	2	1,799.70	480	493	TRUE	
SNU216LR_PC1_03	U5 small nuclear ribonucleoprotein 200 kDa helic	IPI00420014	244,513.80	100.00%	1	2	5	0.03%	0.75%	EEASDDDMEGDEAVVR	R	C	95.00%	4.07	0.585	0	4	1	0	2	1,862.66	222	237	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	3	3	3	0.02%	10.10%	AKDQNESLDEEMFYK	R	L	95.00%	3.29	0.385	0	1	0	0	2	1,926.78	660	674	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	3	3	3	0.02%	10.10%	EVDEVDAALSDLEITLEGGK	K	T	95.00%	3.08	0.392	0	1	0	0	2	2,183.00	342	361	TRUE	
SNU216LR_PC1_03	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	3	3	3	0.02%	10.10%	KLDDQSEDEALELEGPLITPGSGSIYSSPGLYS	K	T	95.00%	6.39	0.501	0	0	1	0	2	3,675.72	154	187	TRUE	
SNU216LR_PC1_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	1.63%	AQGEPVAGHESPK	R	I	95.00%	2.49	0.404	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216LR_PC1_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	1.63%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.5	0.548	0	1	0	0	2	2,016.94	789	806	TRUE	
SNU216LR_PC1_03	132 kDa protein	IPI00002054	131,684.30	99.30%	2	3	3	0.02%	3.26%	HGLQLGAQSPGR	R	G	86.20%	2.47	0.14	0	0	1	0	2	1,300.62	1070	1081	TRUE	
SNU216LR_PC1_03	132 kDa protein	IPI00002054	131,684.30	99.30%	2	3	3	0.02%	3.26%	TPLDLFAHFGPEPGDHSDPLPPSAPSPTR	K	E	95.00%	6.2	0.521	0	0	1	1	2	3,132.45	179	207	TRUE	
SNU216LR_PC1_03	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	100.00%	3	3	3	0.02%	2.06%	EVDPNDLYIVEPLKFSPEK	K	K	95.00%	5.15	0.343	0	0	1	0	2	2,312.11	1240	1258	TRUE	
SNU216LR_PC1_03	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	100.00%	3	3	3	0.02%	2.06%	EVDPNDLYIVEPLKFSPEKK	R	K	95.00%	4.88	0.276	0	0	1	0	2	2,440.21	1240	1259	TRUE	
SNU216LR_PC1_03	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	100.00%	3	3	3	0.02%	2.06%	SKSLQLTGK	K	E	95.00%	2	0.305	0	1	0	0	2	1,041.53	1231	1239	TRUE	
SNU216LR_PC1_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	115,411.20	100.00%	6	9	13	0.08%	4.04%	DGQDAIAQSPEK	K	E	95.00%	2.58	0.332	1	1	0	0	2	1,338.56	263	274	TRUE	
SNU216LR_PC1_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	115,411.20	100.00%	6	9	13	0.08%	4.04%	DGQDAIAQSPEKESK	K	D	95.00%	3.83	0.358	0	2	0	0	2	1,682.73	263	277	TRUE	
SNU216LR_PC1_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	115,411.20	100.00%	6	9	13	0.08%	4.04%	DGQDAIAQSPEKESKDYEMNANHK	K	D	95.00%	6.07	0.352	0	0	1	1	2	2,785.18	263	286	TRUE	
SNU216LR_PC1_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	115,411.20	100.00%	6	9	13	0.08%	4.04%	ISSKSPGHMVILDQTK	R	G	95.00%	3.84	0.475	0	2	3	0	2	1,900.86	531	546	TRUE	
SNU216LR_PC1_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	115,411.20	100.00%	6	9	13	0.08%	4.04%	RISSKSPGHMVILDQTK	K	G	95.00%	3.73	0.277	0	0	1	0	2	2,056.97	530	546	TRUE	
SNU216LR_PC1_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	115,411.20	100.00%	6	9	13	0.08%	4.04%	SPGHMVILDQTK	K	G	95.00%	2.69	0.327	0	1	0	0	2	1,405.65	535	546	TRUE	
SNU216LR_PC1_03	SH3 and multiple ankyrin repeat domains 2 isofor	IPI00220490	134,933.80	100.00%	3	4	4	0.02%	3.27%	NSPAFLSTDLGDEDVGLGPPAPR	R	T	95.00%	4.28	0.452	0	1	1	0	2	2,405.10	503	525	TRUE	
SNU216LR_PC1_03	SH3 and multiple ankyrin repeat domains 2 isofor	IPI00220490	134,933.80	100.00%	3	4	4	0.02%	3.27%	RNSPAFLSTDLGDEDVGLGPPAPR	R	T	95.00%	2.59	0.24	0	0	1	0	2	2,561.20	502	525	TRUE	
SNU216LR_PC1_03	SH3 and multiple ankyrin repeat domains 2 isofor	IPI00220490	134,933.80	100.00%	3	4	4	0.02%	3.27%	TIVAVGSMEEAVILPFR	R	I	95.00%	2.82	0.441	0	1	0	0	2	1,911.97	779	795	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	HFSTLKDDDLVEFSDLESEDDERPR	R	S	95.00%	4.21	0.243	0	0	0	1	2	3,074.33	1272	1296	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	NTSSDNSDVEVMPAQSPR	R	E	95.00%	4.03	0.417	0	2	0	0	2	2,013.82	412	429	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	TASPLPLRPDAPVEK	R	S	95.00%	2.85	0.234	0	1	0	0	2	1,670.85	1858	1872	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	TASPLPLRPDAPVEKSPEETATQVPSLESLTLI	R	L	95.00%	5.1	0.191	0	0	1	0	2	3,581.84	1858	1890	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	VSPSDTTPLVSR	R	S	95.00%	2.67	0.435	0	1	0	0	2	1,338.63	1910	1921	TRUE	
SNU216LR_PC1_03	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	3	4	0.02%	2.20%	AQTLPTSVVTITSESSPGKR	R	E	95.00%	4.04	0.0319	0	1	0	0	2	2,139.07	2326	2345	TRUE	
SNU216LR_PC1_03	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	3	4	0.02%	2.20%	GEQVSQNGLPAEQGSPR	K	M	95.00%	2.81	0.196	0	1	0	0	2	1,833.81	2124	2140	TRUE	
SNU216LR_PC1_03	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	3	4	0.02%	2.20%	VSEEAESQQQWDTSKGEQVSQNGLPAEQ	K	M	95.00%	5.01	0.378	0	0	2	0	2	3,566.57	2109	2140	TRUE	
SNU216LR_PC1_03	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,877.30	99.80%	2	2	2	0.01%	1.57%	MSMTGAGKSPPSVQSLAMR	K	L	95.00%	3.06	0.182	0	0	1	0	2	2,015.91	132	150	TRUE	
SNU216LR_PC1_03	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,877.30	99.80%	2	2	2	0.01%	1.57%	SPPSVQSLAMR	K	L	95.00%	2.03	0.369	0	1	0	0	2	1,252.58	140	150	TRUE	
SNU216LR_PC1_03	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	7.01%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	4.48	0.538	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216LR_PC1_03	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	7.01%	GKELSDQATASPIVAR	K	T	95.00%	3.71	0.475	0	1	0	0	2	1,722.84	86	101	TRUE	
SNU216LR_PC1_03	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	7.01%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.35	0.354	0	0	1	0	2	2,172.03	344	362	TRUE	
SNU216LR_PC1_03	WD repeat domain 44 protein	IPI00044371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	7.01%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	4.53	0.292	0	0	0	1	2	3,264.38	394	422	TRUE	
SNU216LR_PC1_03	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	EKKPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.86	0.486	0	0	0	1	2	2,717.25	518	542	TRUE	
SNU216LR_PC1_03	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	KPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.78	0.46	0	0	3	0	2	2,460.11	520	542	TRUE	
SNU216LR_PC1_03	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	SSPVKKPSLLK	K	A	95.00%	2.37	0.221	0	0	1	0	2	1,263.71	556	566	TRUE	
SNU216LR_PC1_03	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	4	6	0.04%	2.27%	TGASSLLNKSSPVK	R	K	95.00%	3.44	0.377	0	1	0	0	2	1,468.74	547	560	TRUE	
SNU216LR_PC1_03	Isoform 1 of Secretory carrier-associated membra	IPI00306382,IPI00453116,IP	38,287.70	99.10%	1	1	1	0.01%	2.31%	KLSPTEPK	R	N	82.50%	1.63	0.219	0	1	0	0	2	979.4862	74	81	TRUE	
SNU216LR_PC1_03	Isoform 1 of A-kinase anchor protein 9	IPI00019223,IPI00220624,IP	452,107.10	100.00%	1	1	1	0.01%	0.82%	EEEFGVDDSYSEQGAQDSPTHLEMMESELA	R	Q	93.70%	6.15	0.0182	0	0	1	0	2	3,625.45	136	167	TRUE	
SNU216LR_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	7	8	9	0.06%	1.51%	AFVESQQKSPGKR	K	R	95.00%	2.63	0.285	0	0	1	0	2	1,541.75	1359	1371	TRUE	
SNU216LR_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	7	8	9	0.06%	1.51%	EVEEELATSGGQSPTGEQIPQFQQR	R	Q	95.00%	3.12	0.244	0	0	1	0	2	2,825.26	3622	3646	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	7	8	9	0.06%	1.51%	MLSSSDAITQEFMDLR	R	T	95.00%	3.7	0.415	0	1	0	0	2	1,923.82	1374	1389	TRUE	
SNU216LR_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	7	8	9	0.06%	1.51%	QGSFSEDVISHK	K	G	95.00%	2.76	0.428	0	1	1	0	2	1,413.60	1858	1869	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	7	8	9	0.06%	1.51%	RQGSFSEDVISHK	K	G	95.00%	2.74	0.227	0	0	1	0	2	1,569.71	1857	1869	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	7	8	9	0.06%	1.51%	SMDAMSSPTK	K	T	95.00%	2.58	0.52	0	1	0	0	2	1,134.42	2423	2432	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	7	8	9	0.06%	1.51%	SMDAMSSPTKTETVK	K	A	95.00%	4.24	0.0728	0	2	0	0	2	1,692.72	2423	2437	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216LR_PC1_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.60%	2	2	2	0.01%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.81	0.246	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC1_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.60%	2	2	2	0.01%	10.10%	RSPSPYYSR	R	D	93.00%	2.12	0.163	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	3	0.02%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.42	0.668	0	1	2	0	2	2,727.04	12	35	TRUE	
SNU216LR_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00034006	178,974.60	99.80%	1	2	2	0.01%	2.02%	GAAAADLLSSSPESQHGGTQSPGGGQPLL	R	V	95.00%	3.82	0.154	0	0	1	1	2	3,224.52	1113	1145	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.17	0.506	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	YVDEENSDGETSNHR	K	L	95.00%	3.16	0.463	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	2	0.296	0	3	0	0	2	2,233.05	538	560	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	GPTPPAMGPR	R	D	95.00%	2.3	0.392	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	LSASTASELSPK	R	S	95.00%	2.53	0.33	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	PAPPQEESPSSEAK	R	S	89.90%	1.88	0.227	0	1	0	0	2	1,613.61	79	92	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	RASNEKESAAPASPAPSPAPSPTPAPPQK	R	E	95.00%	3.68	0.292	0	0	1	0	2	2,918.40	532	560	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	4.14	0.431	0	2	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.78	0.44	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	SLSRTPETLLPFAEAEAFLKK	K	A	95.00%	3.28	0.306	0	0	1	0	2	2,428.25	809	829	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	10	13	0.08%	13.60%	SSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	3.23	0.217	0	0	1	0	2	2,318.09	112	133	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to fat3	IPI00735918	507,101.70	99.90%	2	2	2	0.01%	0.76%	FLIDSNGQVITTER	R	L	95.00%	2.42	0.279	0	0	1	0	2	1,752.76	2588	2601	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to fat3	IPI00735918	507,101.70	99.90%	2	2	2	0.01%	0.76%	IVDGLGGEHQEMTTFHPESPR	K	I	95.00%	2.9	0.189	0	0	1	0	2	2,417.06	4296	4316	TRUE	
SNU216LR_PC1_03	Long chain polyunsaturated fatty acid elongation	IPI00328307	35,294.80	99.80%	1	1	1	0.01%	9.03%	DHQNGSMAAVNGHTNSFSPLENNVKPR	K	K	95.00%	4.85	0.36	0	0	0	1	2	3,001.34	268	294	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	DSQSASGEERPPEADGK	R	K	95.00%	2.79	0.348	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	EGPEPPEEVPPPTTPPVPK	R	V	95.00%	3.04	0.397	0	1	0	0	2	2,073.98	597	615	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	ERGTPPVDPK	R	L	94.70%	2.15	0.221	0	1	0	0	2	1,175.55	779	788	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	GNSPNSEPPTPK	K	T	95.00%	2.35	0.283	0	1	0	0	2	1,304.55	378	389	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	GSETGSETHESDLAPSDK	R	E	95.00%	3.52	0.417	0	1	0	0	2	1,926.76	1105	1122	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	GSETGSETHESDLAPSDKEAPTPK	R	E	95.00%	4.31	0.382	0	0	1	0	2	2,550.09	1105	1128	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	KGNSPNSEPPTPK	K	T	95.00%	2.99	0.236	0	2	0	0	2	1,432.65	377	389	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	3.04	0.502	0	1	1	1	2	2,537.95	339	359	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	QRGSETGSETHESDLAPSDK	R	E	95.00%	2.51	0.269	0	0	1	0	2	2,210.92	1103	1122	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	SDSGGSSSEPFDR	R	H	95.00%	2.53	0.387	0	1	0	0	2	1,407.51	759	771	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	SETPPVPPPPPYLASYPGFPENGAPGPPISR	R	F	95.00%	4.19	0.359	0	0	1	0	2	3,265.56	823	853	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	12	14	15	0.09%	7.74%	TASETRSEGSEYEEIPK	R	R	95.00%	3.48	0.0677	0	1	0	0	2	1,992.84	1083	1099	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	DASLHGLSQYNSL	R	-	95.00%	3.17	0.508	0	1	0	0	2	1,484.64	1593	1605	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	DHAPSIPTSPFGDSLESSTELR	R	R	95.00%	3.85	0.51	0	0	1	0	2	2,423.08	249	270	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	EDVTPPLSPDDLK	K	Y	95.00%	2.52	0.397	0	2	0	0	2	1,585.64	1049	1061	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	EGPVGGESDSEEMFEK	R	T	95.00%	3.37	0.43	0	1	0	0	2	1,806.68	404	419	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	GLPSTSSKEDVTPPLSPDDLK	K	Y	95.00%	3.15	0.31	0	1	0	0	2	2,343.04	1041	1061	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	IGDGLSPLPHLTESSSFLSTVTSVSR	R	D	95.00%	3.41	0.296	0	0	1	0	2	2,767.36	531	556	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	REGPVGGESDSEEMFEK	K	T	95.00%	3.89	0.406	0	2	2	0	2	1,962.78	403	419	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	SAEPRPELGPGQETGTNSR	R	G	95.00%	2.41	0.254	0	1	0	0	2	2,062.92	1426	1444	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	SLYGDVDSPLPTGEAGGPPSTR	K	E	95.00%	4.7	0.587	0	1	0	0	2	2,253.01	177	198	TRUE	
SNU216LR_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	10	11	14	0.09%	10.90%	WAPHSPTASQPQSPGDPTSLEEHGGEEPPE	R	D	95.00%	4.52	0.342	0	0	0	1	2	3,878.67	1558	1592	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	12	0.07%	9.35%	DSAAPSPIPGADNLSADPVVSPPTSIPFK	R	S	95.00%	2.99	0.229	0	0	1	0	2	2,927.41	424	452	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	12	0.07%	9.35%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	R	95.00%	5.17	0.41	0	0	1	3	2	3,690.75	1093	1125	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	12	0.07%	9.35%	LSLTSDPEEGDPLALGPESPGEPQPPQLK	R	K	95.00%	5.15	0.255	0	0	1	0	2	3,078.46	1214	1242	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	12	0.07%	9.35%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	4.88	0.378	0	1	2	0	2	2,276.04	1072	1092	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	5	7	12	0.07%	9.35%	SSLSGDEEDELFK	R	G	95.00%	2.73	0.407	0	3	0	0	2	1,615.58	1279	1291	TRUE	
SNU216LR_PC1_03	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	99.90%	1	1	2	0.01%	1.19%	DASDGEDEKPPLPPR	R	S	95.00%	2.9	0.46	0	2	0	0	2	1,702.73	130	144	TRUE	
SNU216LR_PC1_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	AATTATPAATTSPK	K	E	95.00%	2.7	0.391	0	1	0	0	2	1,368.64	1111	1124	TRUE	
SNU216LR_PC1_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	FSPFLQTAEDNTQDEVAGAPADHHGPSDE	K	L	95.00%	4.68	0.31	0	0	0	1	2	4,129.72	1193	1230	TRUE	
SNU216LR_PC1_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	IHEKDPNSATATAPPSPLK	K	R	95.00%	2.64	0.22	0	0	1	0	2	2,054.00	146	164	TRUE	
SNU216LR_PC1_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	QVAGDAPVEQATAETASPVHR	R	E	85.40%	3.74	0.0816	0	0	1	0	2	2,214.02	1359	1379	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	3.45	0.613	0	1	0	0	2	2,897.99	1234	1256	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	IESDEEEDFENVGK	R	V	95.00%	3.09	0.493	0	2	0	0	2	1,719.66	1302	1315	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	KPDSPPKVLEPENK	K	Q	95.00%	4.47	0.487	0	0	2	0	2	1,657.82	704	717	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	KPYRIESDEEEDFENVGK	K	V	95.00%	3.44	0.166	0	0	1	0	2	2,263.98	1298	1315	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	QINYKEDSESDGSQK	R	S	95.00%	2.37	0.215	0	1	0	0	2	1,887.70	1173	1187	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	SVTPTKEFLKDEIK	K	Q	95.00%	2.76	0.331	0	1	1	0	2	1,714.87	365	378	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	3.13	0.266	0	0	1	1	2	2,263.14	553	571	TRUE	
SNU216LR_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	11	14	0.09%	8.67%	VGSPLDYSLVDLPSTNGQSPGK	K	A	95.00%	3.93	0.365	0	2	1	0	2	2,311.09	1316	1337	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	203,128.10	100.00%	2	2	5	0.03%	2.71%	GPSAGGGPGSGTSPQVEWTAR	R	R	95.00%	4.26	0.499	0	1	0	0	2	2,035.89	33	53	TRUE	
SNU216LR_PC1_03	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	203,128.10	100.00%	2	2	5	0.03%	2.71%	LEEGVASDEEAEEAQPGSGPSPEPEGSPPAH	R	-	95.00%	5	0.51	0	0	4	0	2	3,471.38	1747	1779	TRUE	
SNU216LR_PC1_03	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.80%	2	2	2	0.01%	2.09%	KIPEPSPVTR	K	R	95.00%	1.91	0.323	0	1	0	0	2	1,203.61	1221	1230	TRUE	
SNU216LR_PC1_03	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.80%	2	2	2	0.01%	2.09%	KLSSSDAPAQDTGSSAAAVETDASR	R	T	95.00%	6.03	0.0595	0	1	0	0	2	2,502.10	838	862	TRUE	
SNU216LR_PC1_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	99.80%	1	1	1	0.01%	2.60%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.91	0.419	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	ASVSPMDEPVPDSESPIEK	R	V	95.00%	4.34	0.501	0	2	0	0	2	2,093.90	1249	1267	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	DVMSDETNNEETESPSQEFVNITK	R	Y	95.00%	3.73	0.285	0	0	1	0	2	2,823.16	1015	1038	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	ESSPLYSPTFSDSTSAVK	R	E	85.80%	2.35	0.145	0	1	0	0	2	1,982.86	1665	1682	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	EVPSKEEPSPVKAEVAEK	K	Q	95.00%	2.69	0.245	0	0	1	0	2	2,032.98	480	497	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	KLGDVSPTQIDVSQFGSFK	R	E	95.00%	4.15	0.397	0	1	1	0	2	2,133.03	1370	1388	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	KLGDVSPTQIDVSQFGSFKEDTK	R	M	95.00%	6.47	0.596	0	0	1	0	2	2,606.24	1370	1392	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	TTSPPEVSGYSYEK	K	T	95.00%	2.43	0.463	0	1	0	0	2	1,624.68	1837	1850	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	VLSPLRSPPLIGSESAYESFLSADDK	K	A	95.00%	5.83	0.194	0	0	1	0	2	2,938.35	1268	1293	TRUE	
SNU216LR_PC1_03	Microtubule-associated protein 1B	IPI00008868,IPI00374770	256,709.90	100.00%	9	10	11	0.07%	6.24%	VQSLEGEKLSPK	K	S	95.00%	2.98	0.292	0	1	0	0	2	1,394.69	1644	1655	TRUE	
SNU216LR_PC1_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	6	0.04%	6.50%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.64	0.0603	0	1	0	0	2	2,073.00	603	620	TRUE	
SNU216LR_PC1_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	6	0.04%	6.50%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	3.74	0.335	0	1	2	0	2	2,040.01	441	461	TRUE	
SNU216LR_PC1_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	6	0.04%	6.50%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	2.99	0.275	0	1	1	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC1_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	4	0.02%	5.02%	EEDFRRPSEEDFR	R	R	94.90%	2.37	0.179	0	0	1	0	2	1,791.73	584	596	TRUE	
SNU216LR_PC1_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	4	0.02%	5.02%	FPPEDFRHSPEDFR	R	R	95.00%	2.31	0.279	0	0	1	0	2	1,855.78	567	580	TRUE	
SNU216LR_PC1_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	4	0.02%	5.02%	SRSPLGFYVHLK	R	N	95.00%	3.24	0.318	0	0	2	0	2	1,483.75	278	289	TRUE	
SNU216LR_PC1_03	Hypothetical protein KIAA1685	IPI00384569,IPI00419431	98,359.00	99.80%	2	2	2	0.01%	3.27%	KSSLTQEEAPVSWEK	R	R	95.00%	4.15	0.466	0	1	0	0	2	1,798.83	309	323	TRUE	
SNU216LR_PC1_03	Hypothetical protein KIAA1685	IPI00384569,IPI00419431	98,359.00	99.80%	2	2	2	0.01%	3.27%	SESQESLVTSPSKPK	K	S	95.00%	3.5	0.346	0	1	0	0	2	1,683.78	255	269	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	AEEEEASTEEEDKEGAVVSAPSVK	R	G	95.00%	3.95	0.488	0	0	1	0	2	2,680.08	682	705	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	7.16	0.61	0	0	2	0	2	3,418.61	1323	1355	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	ELSPEGPGK	R	E	95.00%	1.66	0.123	1	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	GSTPYKGDDEGIFISR	K	V	95.00%	2.97	0.399	0	1	0	0	2	1,821.81	747	762	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.94	0.497	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	95.00%	6.92	0.01	0	0	2	1	2	4,094.96	1536	1574	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	LPLLPPESPGPLR	R	Q	95.00%	2.57	0.452	0	2	0	0	2	1,465.78	846	858	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	LRVQSPEPPAPER	R	A	95.00%	1.89	0.249	0	1	0	0	2	1,555.76	1471	1483	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	4.01	0.409	0	1	2	0	2	2,609.20	816	837	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	NSLESISSIDR	R	E	95.00%	1.73	0.269	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	QSPASPPPLGGGAPVR	R	T	95.00%	2.28	0.272	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	RVSLVGADDLRK	K	M	95.00%	2.91	0.432	0	0	1	0	2	1,408.73	1376	1387	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	13	16	20	0.12%	14.80%	SLEELLLDANQLR	R	E	95.00%	2.66	0.39	0	1	0	0	2	1,593.79	37	49	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.81	0.203	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	GSPTSAYPER	K	K	95.00%	1.97	0.345	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	HGSDPAFAPGPR	R	G	95.00%	2.57	0.459	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	RGSLTLTISGESPK	R	A	95.00%	3.15	0.37	0	1	1	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	RGSPVPPVPER	R	R	95.00%	2.35	0.186	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	RGSPVPPVPERR	R	S	81.30%	2.59	0.12	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	2.49	0.252	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	2.89	0.302	0	0	1	0	2	2,639.07	4	25	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	RSSPVPPVPERR	R	G	95.00%	2.66	0.226	0	0	1	0	2	1,456.74	923	934	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	11.50%	SSPVPPVPER	R	R	94.50%	1.98	0.226	0	1	0	0	2	1,144.54	924	933	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.46	0.434	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	ETQSPEQVKSEK	K	L	95.00%	3.12	0.437	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.31	0.617	0	3	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.2	0.462	0	0	1	1	2	2,726.13	369	391	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	KAEGEPQEESPLKSK	K	S	95.00%	4.31	0.501	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	KETQSPEQVKSEK	K	L	95.00%	3.41	0.341	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	LKDLFDYSPPLHK	K	N	95.00%	3.18	0.34	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	NTPSQHSHSIQHSPER	K	S	95.00%	2.65	0.235	0	1	0	1	2	2,001.80	256	271	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.92	0.519	0	2	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	SGSGSVGNGSSRYSPSQNSPIHHIPSR	R	R	95.00%	3.21	0.264	0	0	1	0	2	2,912.25	272	298	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.91	0.183	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	SQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.15	0.287	0	0	2	0	2	2,688.10	183	204	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	4.14	0.405	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	YSPSQNSPIHHIPSR	R	R	95.00%	3.05	0.269	0	0	2	0	2	1,799.82	284	298	TRUE	
SNU216LR_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	15	20	25	0.15%	18.30%	YSPSQNSPIHHIPSRR	R	S	95.00%	3.73	0.336	0	0	0	1	2	1,955.92	284	299	TRUE	
SNU216LR_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	7	0.04%	2.76%	HSDNPSEEGEVKDDGLEK	R	S	95.00%	3	0.202	0	0	1	0	2	2,144.81	1368	1385	TRUE	
SNU216LR_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	7	0.04%	2.76%	KQDSSDEDDDDDEAPK	K	R	95.00%	2.53	0.419	0	1	0	0	2	1,968.63	204	219	TRUE	
SNU216LR_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	7	0.04%	2.76%	KQDSSDEDDDDDEAPKR	K	Q	95.00%	4.51	0.601	0	1	1	0	2	2,124.73	204	220	TRUE	
SNU216LR_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	7	0.04%	2.76%	LKEEHGIELSSPR	R	H	95.00%	3.53	0.447	0	1	1	0	2	1,574.76	1355	1367	TRUE	
SNU216LR_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	7	0.04%	2.76%	QDSSDEDDDDDEAPKR	K	Q	95.00%	1.97	0.421	0	1	0	0	2	1,996.63	205	220	TRUE	
SNU216LR_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	ALSPVTSR	K	T	81.50%	1.57	0.233	0	1	0	0	2	910.4394	697	704	TRUE	
SNU216LR_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	KASISLTDDEVDDEEETIEEEEANEGVVDHQ	R	E	95.00%	9.04	0.0119	0	0	1	0	2	4,490.90	902	940	TRUE	
SNU216LR_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	RSPPIKPLLGMNPFQK	K	N	95.00%	3.75	0.461	0	0	1	0	2	1,903.00	2438	2453	TRUE	
SNU216LR_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	VAVNALAVGEPGTASKPASPIGGPTQEEK	R	T	95.00%	4.08	0.375	0	0	1	0	2	2,855.42	1677	1705	TRUE	
SNU216LR_PC1_03	WD-repeat protein 3	IPI00009471	106,102.50	100.00%	2	3	3	0.02%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.12	0.573	0	1	1	0	2	2,816.14	239	264	TRUE	
SNU216LR_PC1_03	WD-repeat protein 3	IPI00009471	106,102.50	100.00%	2	3	3	0.02%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.97	0.446	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216LR_PC1_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	GADNDGSGSESGYTTPK	K	K	95.00%	3.66	0.458	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC1_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	NDSWGSFDLR	R	A	95.00%	2.57	0.412	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC1_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	RTSPQVLGSILK	K	S	95.00%	2.77	0.348	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC1_03	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	99.80%	2	2	3	0.02%	1.79%	GPSPSPVGSPASVAQSR	R	S	95.00%	2.97	0.291	0	2	0	0	2	1,660.77	694	710	TRUE	
SNU216LR_PC1_03	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	99.80%	2	2	3	0.02%	1.79%	SHHAPMSPGSSGGGGQPLAR	R	T	95.00%	2.86	0.363	0	0	1	0	2	1,967.85	357	376	TRUE	
SNU216LR_PC1_03	Serine/threonine-protein kinase MRCK beta	IPI00477763	194,318.00	100.00%	1	2	3	0.02%	1.23%	HSTPSNSSNPSGPPSPNSPHR	K	S	95.00%	4.84	0.473	0	0	2	1	2	2,300.91	1676	1696	TRUE	
SNU216LR_PC1_03	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	99.80%	2	2	2	0.01%	2.62%	SEEDNEIESEEEVQPK	K	T	95.00%	4.15	0.466	0	1	0	0	2	1,970.78	219	234	TRUE	
SNU216LR_PC1_03	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	99.80%	2	2	2	0.01%	2.62%	VHVQFFDDSPTR	R	G	95.00%	2.5	0.463	0	1	0	0	2	1,527.66	129	140	TRUE	
SNU216LR_PC1_03	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	4.26	0.364	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216LR_PC1_03	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	4.41	0.421	0	0	1	0	2	2,687.26	674	699	TRUE	
SNU216LR_PC1_03	Kinesin-like protein KIF23	IPI00293884	98,106.10	99.80%	2	2	2	0.01%	4.44%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	4.29	0.419	0	1	0	0	2	2,339.18	682	702	TRUE	
SNU216LR_PC1_03	Kinesin-like protein KIF23	IPI00293884	98,106.10	99.80%	2	2	2	0.01%	4.44%	YMLTHQELASDGEIETK	K	L	95.00%	2.91	0.365	0	1	0	0	2	2,044.89	754	770	TRUE	
SNU216LR_PC1_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.30%	DRTPPLLYR	R	D	95.00%	2.43	0.292	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216LR_PC1_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.30%	LKSPSQKQDGGTAPVASASPK	K	L	95.00%	2.56	0.195	0	0	1	0	2	2,134.05	763	783	TRUE	
SNU216LR_PC1_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.30%	SLSPGGAALGYR	R	D	95.00%	2.85	0.278	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216LR_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	8	10	0.06%	28.00%	GHTASESDEQQWPEEK	R	R	95.00%	3.48	0.462	0	2	2	0	2	1,937.76	23	38	TRUE	
SNU216LR_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	8	10	0.06%	28.00%	GHTASESDEQQWPEEKR	R	L	95.00%	3.53	0.452	0	1	0	0	2	2,093.86	23	39	TRUE	
SNU216LR_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	8	10	0.06%	28.00%	LKEDILENEDEQNSPPK	R	K	95.00%	5.07	0.368	0	1	1	0	2	2,077.93	40	56	TRUE	
SNU216LR_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	4	8	10	0.06%	28.00%	LKEDILENEDEQNSPPKK	R	G	95.00%	4.07	0.212	0	1	1	1	2	2,206.03	40	57	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	AADISLDNLVEGK	K	R	95.00%	2.98	0.444	0	1	0	0	2	1,424.67	1619	1631	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	EEKSVEYEGDLK	K	S	95.00%	2.57	0.286	0	1	0	0	2	1,505.64	811	822	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	EGDIIPPLTGATPPLIGHLK	K	L	95.00%	2.65	0.201	0	0	1	0	2	2,119.12	916	935	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	ETAVPGPLGIEDISPNLSPDDK	R	S	95.00%	3.16	0.301	0	1	1	0	2	2,344.10	1418	1439	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	ETAVPGPLGIEDISPNLSPDDKSFSR	R	V	95.00%	3.35	0.256	0	0	1	0	2	2,821.33	1418	1443	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	GNLLHFPSSQGEEEKEK	R	L	95.00%	3.55	0.452	0	1	1	0	2	2,008.90	1065	1081	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	GNLLHFPSSQGEEEKEKLEGDHTIR	R	Q	95.00%	3.61	0.203	0	0	1	0	2	2,930.37	1065	1089	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	95.00%	4	0.238	0	0	0	2	2	4,330.76	1206	1243	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	3.94	0.496	0	1	2	0	2	2,641.12	541	563	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	KLITSEEERSPAK	K	R	95.00%	3.02	0.161	0	1	0	0	2	1,567.77	1674	1686	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	KNGSTAVAESVASPQK	R	T	95.00%	3.82	0.319	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	LAILDQELEHKEQEAWEEATSEDSSVVIVDV	K	V	95.00%	6.82	0.524	0	0	0	1	2	4,286.04	736	772	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	LDTKEEKSVEYEGDLK	R	S	95.00%	3.58	0.312	0	1	1	0	2	1,962.89	807	822	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	LITSEEERSPAK	K	R	95.00%	2.5	0.154	0	1	0	0	2	1,439.68	1675	1686	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	LSDVDANTAIKHEEQSNEDIPIAEQSSK	R	D	95.00%	4.81	0.425	0	0	1	0	2	3,148.43	212	239	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	LVSPETEASEESLQFNLEKPATGER	K	K	95.00%	3.95	0.381	0	0	1	0	2	2,841.32	996	1020	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.15	0.497	0	1	1	0	2	2,539.15	1112	1134	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	7.3	0.55	0	1	3	1	2	2,881.31	1112	1137	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	NGSTAVAESVASPQK	K	T	95.00%	3	0.372	0	1	0	0	2	1,525.69	1022	1036	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	QDKPMDTSVLSEEGGEPFQKK	R	L	95.00%	3.59	0.217	0	0	1	0	2	2,430.09	393	413	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	4	0.42	0	1	5	1	2	2,473.22	1090	1111	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.16	0.446	0	0	2	0	2	3,282.51	1464	1495	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	SDSPEIPFQAAAGPSDGLDASSPGNSFVGLF	R	V	95.00%	5.08	0.583	0	1	1	0	2	3,126.41	1465	1495	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	SEDMPFSPK	R	A	95.00%	2.8	0.471	0	2	0	0	2	1,117.43	264	272	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	SEDPPTTPIR	R	G	95.00%	2.02	0.233	0	1	0	0	2	1,192.52	1055	1064	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	SGTAETEPVEQDSSQPSLPLVR	K	A	95.00%	4.19	0.512	0	1	1	0	2	2,407.10	823	844	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	SNVSSPATPTASSSSSTTPTR	R	K	95.00%	4.13	0.0427	0	1	0	0	2	2,102.92	1636	1656	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	SNVSSPATPTASSSSSTTPTRK	R	I	92.30%	5.06	0.0418	0	0	1	0	2	2,231.02	1636	1657	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	STPFIVPSSPTEQEGR	R	Q	95.00%	2.86	0.403	0	1	1	0	2	1,811.82	377	392	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	SVEYEGDLK	K	S	95.00%	2.05	0.0968	1	0	0	0	2	1,119.46	814	822	TRUE	
SNU216LR_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	31	43	53	0.33%	24.20%	TSSGTSLSAMHSSGSSGK	R	G	91.70%	3.38	0.045	0	1	0	0	2	1,748.72	1320	1337	TRUE	
SNU216LR_PC1_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	3	3	3	0.02%	6.92%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	6.34	0.0187	0	0	1	0	2	2,976.44	103	129	TRUE	
SNU216LR_PC1_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	3	3	3	0.02%	6.92%	SINKLDSPDPFK	R	L	95.00%	2.68	0.338	0	1	0	0	2	1,440.68	656	667	TRUE	
SNU216LR_PC1_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	3	3	3	0.02%	6.92%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	4	0.395	0	1	0	0	2	2,483.14	428	450	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.68	0.221	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216LR_PC1_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	6.88%	KMEESDEEAVQAK	R	V	95.00%	2.56	0.264	0	1	0	0	2	1,589.64	688	700	TRUE	
SNU216LR_PC1_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	6.88%	RYEDDGISDDEIEGK	R	R	95.00%	2.29	0.298	0	1	0	0	2	1,820.72	21	35	TRUE	
SNU216LR_PC1_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	6.88%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.04	0.412	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC1_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.02%	6.88%	TPQRGDEEGLGGEEEEEEEEEEEDDSAEEGC	R	L	95.00%	7.65	0.654	0	0	1	0	2	3,773.42	844	877	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	EAQQKVPDEEENEESDNEKETEK	K	S	95.00%	4.93	0.336	0	0	1	0	2	2,814.15	1173	1195	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	GSVPLSSSSPPATHFPDETEITNPVPK	K	K	95.00%	5.29	0.0082	0	1	0	0	2	2,784.31	1467	1492	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	4.71	0.518	0	2	2	0	2	2,366.08	1320	1340	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	IKNENTEGSPQEDGVELEGLKQR	K	L	95.00%	5.39	0.562	0	0	1	0	2	2,650.24	1320	1342	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	KIKNENTEGSPQEDGVELEGLK	K	Q	95.00%	4.07	0.327	0	0	2	0	2	2,494.17	1319	1340	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	KPSTSDDSDSNFEK	R	I	89.80%	3.1	0.0573	0	1	0	0	2	1,636.64	1548	1561	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	KTQMAEVLPSPR	K	G	95.00%	3.05	0.439	0	1	1	0	2	1,436.70	1285	1296	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	NENTEGSPQEDGVELEGLK	K	Q	95.00%	3.34	0.483	0	1	1	0	2	2,124.90	1322	1340	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	SVVSDLEADDVK	K	G	95.00%	2.67	0.471	0	2	0	0	2	1,356.59	1455	1466	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	SVVSDLEADDVKGSVPLSSSPPATHFPDETE	K	K	95.00%	5.56	0.287	0	0	3	1	2	4,041.92	1455	1492	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	TDDEDFVPSDASPPK	K	T	84.60%	2.59	0.108	0	1	0	0	2	1,779.64	1424	1438	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	TQMAEVLPSPR	K	G	95.00%	2.94	0.449	0	1	1	0	2	1,308.60	1286	1296	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	VPDEEENEESDNEK	K	E	82.20%	2.41	0.12	0	1	0	0	2	1,742.63	1178	1191	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	VPDEEENEESDNEKETEK	K	S	95.00%	4.31	0.487	0	3	1	0	2	2,229.86	1178	1195	TRUE	
SNU216LR_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	15	21	29	0.18%	8.74%	YLEESDEDDLF	K	-	93.50%	2.02	0.202	0	1	0	0	2	1,454.52	1602	1612	TRUE	
SNU216LR_PC1_03	Zinc finger protein 40	IPI00013444	297,216.50	99.80%	2	2	2	0.01%	1.36%	AHSEVFTKPSGQQTLSPDR	K	Q	95.00%	3.15	0.162	0	0	1	0	2	2,165.00	2666	2684	TRUE	
SNU216LR_PC1_03	Zinc finger protein 40	IPI00013444	297,216.50	99.80%	2	2	2	0.01%	1.36%	SVGDDEELQQNESGTSPK	K	S	95.00%	3.59	0.494	0	1	0	0	2	1,999.81	1035	1052	TRUE	
SNU216LR_PC1_03	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	100.00%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGSSASGLAK	K	V	95.00%	4.71	0.15	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216LR_PC1_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	4.16	0.456	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216LR_PC1_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	95.00%	2.98	0.246	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216LR_PC1_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	5.16	0.491	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	2	2	0.01%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	5.17	0.454	0	0	1	0	2	2,780.35	101	124	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	2	2	0.01%	2.28%	SPTSPLNMK	K	L	95.00%	1.62	0.331	0	1	0	0	2	1,054.46	116	124	TRUE	
SNU216LR_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	5	0.03%	4.98%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.38	0.552	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	5	0.03%	4.98%	SSSPAPEFLASSPPDNK	K	S	95.00%	2.43	0.312	0	2	0	0	2	1,810.79	861	877	TRUE	
SNU216LR_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	5	0.03%	4.98%	SSSPAPEFLASSPPDNKSPDEATAADQESED	K	T	95.00%	6.1	0.11	0	0	1	0	2	3,885.65	861	897	TRUE	
SNU216LR_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	5	0.03%	4.98%	VSAGEPGSHPSPAPR	K	R	95.00%	3.8	0.455	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216LR_PC1_03	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	3	3	0.02%	3.17%	AASSPSNPAALPVASDSSPMGSK	K	T	95.00%	3.67	0.273	0	1	0	0	2	2,208.98	1056	1078	TRUE	
SNU216LR_PC1_03	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	3	3	0.02%	3.17%	GAGGSPVGVEEGLVNVGTGQK	K	L	95.00%	4.06	0.548	0	1	0	0	2	1,991.94	1321	1341	TRUE	
SNU216LR_PC1_03	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	3	3	0.02%	3.17%	TKETDSPSTPGKDQR	K	S	95.00%	2.54	0.254	0	0	1	0	2	1,726.76	1079	1093	TRUE	
SNU216LR_PC1_03	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	RKTPEASAIGLHQDPELGDAALR	R	S	95.00%	5.64	0.404	0	0	0	1	2	2,525.25	729	751	TRUE	
SNU216LR_PC1_03	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	SLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	4.99	0.523	0	0	1	0	2	2,577.24	647	671	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	4	4	0.02%	4.10%	DKEVSDDEAEEKEDK	R	E	95.00%	3.84	0.374	0	0	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.11	0.397	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	3	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	3.43	0.477	0	1	1	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC1_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.31	0.295	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC1_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.58	0.228	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216LR_PC1_03	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	2	3	4	0.02%	4.59%	ALTQPSPVSTPSSVQFFLQEDDSADR	R	K	88.00%	3.9	0.089	0	0	1	0	2	2,902.31	125	150	TRUE	
SNU216LR_PC1_03	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	2	3	4	0.02%	4.59%	RRPGASPTGETPTIEEGEEDEDEASEAEGAR	R	A	95.00%	7.23	0.617	0	0	2	1	2	3,352.41	94	124	TRUE	
SNU216LR_PC1_03	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	99.80%	2	2	2	0.01%	2.55%	ATEDGEEDEVSAGEK	K	E	95.00%	2.67	0.196	0	1	0	0	2	1,645.61	1425	1439	TRUE	
SNU216LR_PC1_03	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	99.80%	2	2	2	0.01%	2.55%	SQNSQESTADESEDDMSSQASK	K	S	95.00%	4.75	0.25	0	1	0	0	2	2,440.89	1401	1422	TRUE	
SNU216LR_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	9	11	0.07%	5.27%	HDSSAPDPAPDSADEVMPEAVPEVASEPGI	K	T	95.00%	5.76	0.41	0	0	0	1	2	4,188.80	887	926	TRUE	
SNU216LR_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	9	11	0.07%	5.27%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.83	0.488	0	1	2	0	2	2,816.12	796	819	TRUE	
SNU216LR_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	9	11	0.07%	5.27%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	5.36	0.518	0	1	1	0	2	2,614.30	1454	1477	TRUE	
SNU216LR_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	9	11	0.07%	5.27%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	5.28	0.517	0	0	0	2	2	4,419.92	885	926	TRUE	
SNU216LR_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	9	11	0.07%	5.27%	SPPEGDTTLFLSR	R	L	95.00%	2.38	0.403	0	1	0	0	2	1,499.68	1040	1052	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	9	11	0.07%	5.27%	TASPLEHILQTLFGK	K	K	95.00%	3.63	0.491	0	1	1	0	2	1,734.88	1310	1324	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	3	0.02%	1.89%	KGSDSSIPDEEK	R	M	95.00%	3.02	0.274	0	1	0	0	2	1,371.57	315	326	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	3	0.02%	1.89%	LTPPESQSPLHWLADLAEQK	K	A	95.00%	2.8	0.229	0	0	1	0	2	2,340.13	2000	2019	TRUE	
SNU216LR_PC1_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	3	3	3	0.02%	1.89%	TSPLVSQNNEQGSTLR	R	D	95.00%	3.38	0.351	0	1	0	0	2	1,810.83	2052	2067	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	AKDDDDSDIPTAQR	K	K	95.00%	3.05	0.398	0	1	0	0	2	1,626.66	473	486	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	ATTPASTANSDVATIPTDTPLKEENEGFVK	K	V	95.00%	6.66	0.0126	0	0	1	0	2	3,184.49	260	289	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	4.25	0.467	0	0	2	0	2	2,585.34	199	222	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	LHQLSGSDQLESTAHSR	K	I	95.00%	3.45	0.316	0	1	1	0	2	2,025.84	179	195	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	NVSTGSAENEEKSEVQAIIESTPELDMDKDL	R	G	95.00%	7.55	0.527	0	0	1	1	2	3,893.75	313	347	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	SASQSSLDKLDQELK	R	E	95.00%	3.53	0.324	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	SASQSSLDKLDQELKEQQK	R	E	95.00%	3.96	0.4	0	1	2	0	2	2,242.06	714	732	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	SHTSLKDELSDVSQGGSK	R	A	95.00%	3.24	0.332	0	0	1	0	2	1,954.88	242	259	TRUE	
SNU216LR_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	9	13	15	0.09%	17.10%	TKLHQLSGSDQLESTAHSR	R	I	95.00%	4.39	0.398	0	0	1	1	2	2,175.02	177	195	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	4	4	4	0.02%	4.49%	AETEKQSPPHGEAK	K	A	95.00%	2.66	0.446	0	0	1	0	2	1,588.70	46	59	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	4	4	4	0.02%	4.49%	LSVSSNDTQESGNSSGPSPGAK	R	F	93.40%	3.96	0.0016	0	1	0	0	2	2,185.92	393	414	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	4	4	4	0.02%	4.49%	SVDIHDSIQPR	K	S	95.00%	1.93	0.321	0	1	0	0	2	1,346.61	1569	1579	TRUE	
SNU216LR_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	4	4	4	0.02%	4.49%	TTIPHALLTWRPNSGETAPPPPSPVSEKPLDT	K	S	95.00%	5.45	0.513	0	0	0	1	2	3,943.00	1533	1568	TRUE	
SNU216LR_PC1_03	Isoform 1 of STE20-like serine/threonine-protein I	IPI00022827	142,697.80	100.00%	2	3	3	0.02%	1.86%	VDEDSAEDTQSNDGK	K	E	95.00%	2.67	0.288	0	1	0	0	2	1,689.61	561	575	TRUE	
SNU216LR_PC1_03	Isoform 1 of STE20-like serine/threonine-protein I	IPI00022827	142,697.80	100.00%	2	3	3	0.02%	1.86%	VDEDSAEDTQSNDGKEVVEVGQK	K	L	95.00%	4.48	0.395	0	1	1	0	2	2,558.08	561	583	TRUE	
SNU216LR_PC1_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	7.12%	HKSDVEIPATVTAFSFEDDTVPLSPLK	R	Y	95.00%	6.4	0.569	0	0	1	0	2	3,023.47	400	426	TRUE	
SNU216LR_PC1_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	7.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.93	0.381	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216LR_PC1_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.60%	2	2	2	0.01%	13.80%	AGDLLEDSPKRPK	R	E	91.80%	2.3	0.161	0	1	0	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC1_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.60%	2	2	2	0.01%	13.80%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	2.32	0.317	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC1_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	99.80%	2	3	3	0.02%	2.60%	MESSFGSPSKQESSESLPK	K	E	95.00%	4.36	0.0923	0	1	1	0	2	2,121.90	471	489	TRUE	
SNU216LR_PC1_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	99.80%	2	3	3	0.02%	2.60%	RHEHPPNPPVSPGK	K	T	95.00%	3.33	0.425	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216LR_PC1_03	EHBP1 protein	IPI00433194	132,325.70	100.00%	4	5	6	0.04%	6.29%	ATDEDMQSLASLMSMK	K	Q	95.00%	3.39	0.303	0	1	0	0	2	1,837.74	164	179	TRUE	
SNU216LR_PC1_03	EHBP1 protein	IPI00433194	132,325.70	100.00%	4	5	6	0.04%	6.29%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	3.1	0.438	0	2	1	0	2	1,927.99	389	406	TRUE	
SNU216LR_PC1_03	EHBP1 protein	IPI00433194	132,325.70	100.00%	4	5	6	0.04%	6.29%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	6.21	0.517	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216LR_PC1_03	EHBP1 protein	IPI00433194	132,325.70	100.00%	4	5	6	0.04%	6.29%	KPSEDEVLNK	R	G	95.00%	2.83	0.201	0	1	0	0	2	1,238.57	985	994	TRUE	
SNU216LR_PC1_03	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	99.80%	1	1	1	0.01%	0.65%	SVSGFLHFDTATK	K	V	95.00%	2.78	0.439	0	1	0	0	2	1,489.67	1167	1179	TRUE	
SNU216LR_PC1_03	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	3	3	3	0.02%	1.38%	KLDPAQSASRENLLEEQGSIALR	K	Q	95.00%	3.22	0.319	0	0	1	0	2	2,605.30	1023	1045	TRUE	
SNU216LR_PC1_03	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	3	3	3	0.02%	1.38%	SLQQLAEER	R	S	95.00%	1.98	0.332	0	1	0	0	2	1,153.53	1217	1225	TRUE	
SNU216LR_PC1_03	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	3	3	3	0.02%	1.38%	WRSLQQLAEER	R	S	95.00%	2.38	0.232	0	1	0	0	2	1,495.71	1215	1225	TRUE	
SNU216LR_PC1_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	5	0.03%	6.16%	KVTSPLQSPTK	K	A	95.00%	2.73	0.38	0	2	0	0	2	1,265.65	900	910	TRUE	
SNU216LR_PC1_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	5	0.03%	6.16%	SMPSMGYMTHTVSAPSLHGK	R	S	95.00%	3.32	0.282	0	0	1	0	2	2,198.94	631	650	TRUE	
SNU216LR_PC1_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	5	0.03%	6.16%	TVPLFPHPPVPSLSTSESKPPPQPSPPTSPVR	K	T	95.00%	5.47	0.471	0	0	1	0	2	3,517.72	843	874	TRUE	
SNU216LR_PC1_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	4	4	5	0.03%	6.16%	TVPLFPHPPVPSLSTSESKPPPQPSPPTSPVR	K	L	95.00%	4.7	0.182	0	0	0	1	2	4,213.11	843	880	TRUE	
SNU216LR_PC1_03	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	DVPSPGGLSAPSSPR	K	N	95.00%	3.3	0.437	0	1	0	0	2	1,503.68	429	443	TRUE	
SNU216LR_PC1_03	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	RKDVPSPGGLSAPSSPR	R	N	95.00%	4.8	0.483	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216LR_PC1_03	PREDICTED: RW1 protein isoform 1	IPI00401611	205,143.20	99.80%	2	2	2	0.01%	2.02%	DFDHHDSPALEVFTEQPPSPLPK	K	S	95.00%	4.38	0.407	0	0	1	0	2	2,683.21	1357	1379	TRUE	
SNU216LR_PC1_03	PREDICTED: RW1 protein isoform 1	IPI00401611	205,143.20	99.80%	2	2	2	0.01%	2.02%	RSSDPWSNSHFPHEN	R	-	95.00%	3.49	0.242	0	0	1	0	2	1,876.74	1869	1883	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	AAGARPLTSPESLSR	K	D	95.00%	2.45	0.346	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.07	0.428	0	0	3	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.47	0.374	0	1	1	0	2	1,798.73	964	980	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.58	0.313	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216LR_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	9	0.06%	5.26%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.36	0.313	0	0	1	0	2	3,036.38	937	963	TRUE	
SNU216LR_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	10.30%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.51	0.446	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	10.30%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.13	0.407	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	10.30%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	2.6	0.222	0	0	1	0	2	2,042.89	480	499	TRUE	
SNU216LR_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	10.30%	AKEVELVSE	K	-	95.00%	2.22	0.115	1	0	0	0	2	1,083.50	505	513	TRUE	
SNU216LR_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	10.30%	KSLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	5.83	0.608	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	10.30%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.43	0.433	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC1_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.90%	2	2	3	0.02%	2.84%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.12	0.251	0	0	1	0	2	2,672.22	157	179	TRUE	
SNU216LR_PC1_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.90%	2	2	3	0.02%	2.84%	TGSGSPFAGNSPAR	K	E	95.00%	2.55	0.372	0	2	0	0	2	1,465.55	1265	1278	TRUE	
SNU216LR_PC1_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.80%	2	3	3	0.02%	4.42%	IGSDPLAYEPK	R	E	95.00%	2.21	0.308	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216LR_PC1_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.80%	2	3	3	0.02%	4.42%	SKETSSPGTDDVFTPAPSDSPSSQR	R	I	95.00%	4.87	0.484	0	1	1	0	2	2,660.14	270	294	TRUE	
SNU216LR_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	3	3	3	0.02%	5.05%	NLNIINTHAYNQPEDLVYSQPEMR	R	E	95.00%	4.41	0.3	0	0	1	0	2	2,939.34	468	491	TRUE	
SNU216LR_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	3	3	3	0.02%	5.05%	RHSLEVMNSMVR	K	G	95.00%	3.69	0.267	0	0	1	0	2	1,538.70	640	651	TRUE	
SNU216LR_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	3	3	3	0.02%	5.05%	TDPPAVNGASLGPSISEPDLTSVK	R	E	95.00%	2.63	0.279	0	0	1	0	2	2,432.16	794	817	TRUE	
SNU216LR_PC1_03	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	2	2	2	0.01%	3.34%	AGAESPTMSVDGR	R	Q	95.00%	2.81	0.492	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216LR_PC1_03	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	2	2	2	0.01%	3.34%	TKADVTPPPDGSTTHNLEVSPK	R	E	95.00%	4.63	0.433	0	0	1	0	2	2,371.12	643	664	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	141,860.00	99.80%	2	2	2	0.01%	3.47%	KGSLAALYDLAVLK	R	K	95.00%	3.91	0.42	0	1	0	0	2	1,541.83	321	334	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear factor related to kappa-B-bi	IPI00006171,IPI00472161,IP	141,860.00	99.80%	2	2	2	0.01%	3.47%	SEAEDLAEPLSSTEGVAPLSQAPSPLAIPAIK	K	E	95.00%	3.69	0.257	0	0	1	0	2	3,268.62	353	384	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAK	R	K	95.00%	2.76	0.243	0	1	1	0	2	1,435.68	24	35	TRUE	
SNU216LR_PC1_03	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAKK	R	L	95.00%	3.14	0.391	0	1	1	0	2	1,563.78	24	36	TRUE	
SNU216LR_PC1_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.14	0.316	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC1_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.46	0.391	0	0	0	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	AGTPIRDSHSPDLQLPTPEVIPSSGSK	K	L	95.00%	5.3	0.384	0	0	1	0	2	2,866.40	310	336	TRUE	
SNU216LR_PC1_03	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	DSHSPDLQLPTPEVIPSSGSK	R	L	95.00%	3.36	0.407	0	0	1	0	2	2,271.05	316	336	TRUE	
SNU216LR_PC1_03	DNA excision repair protein ERCC-6	IPI00414779	168,419.30	99.80%	1	1	1	0.01%	0.87%	TSMPSGDESIDEK	K	L	95.00%	2.45	0.442	0	1	0	0	2	1,475.56	1138	1150	TRUE	
SNU216LR_PC1_03	Carboxypeptidase D precursor	IPI00027078	152,917.40	100.00%	3	3	5	0.03%	1.74%	KSLLSHEFQDETDTEEETLYSSK	K	-	95.00%	3.83	0.335	0	0	1	0	2	2,876.18	1357	1379	TRUE	
SNU216LR_PC1_03	Carboxypeptidase D precursor	IPI00027078	152,917.40	100.00%	3	3	5	0.03%	1.74%	SLLSHEFQDETDTEEETLYSSK	K	-	95.00%	3.63	0.333	0	0	2	0	2	2,748.09	1358	1379	TRUE	
SNU216LR_PC1_03	Carboxypeptidase D precursor	IPI00027078	152,917.40	100.00%	3	3	5	0.03%	1.74%	SLLSHEFQDETDTEEETLYSSKH	K	-	95.00%	3.87	0.371	0	0	2	0	2	2,885.14	1358	1380	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	86,266.50	100.00%	1	2	2	0.01%	3.81%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.4	0.434	0	0	1	1	2	3,586.35	475	504	TRUE	
SNU216LR_PC1_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	3	0.02%	14.50%	GRLSPVPVPR	R	A	92.20%	1.76	0.257	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216LR_PC1_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	3	0.02%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	4.72	0.361	0	0	2	0	2	3,607.45	259	290	TRUE	
SNU216LR_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	8	11	0.07%	4.63%	ADHRSSPNVANQPPSPGGK	R	S	95.00%	3.1	0.302	0	1	1	0	2	2,075.87	1167	1185	TRUE	
SNU216LR_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	8	11	0.07%	4.63%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	4.6	0.39	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216LR_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	8	11	0.07%	4.63%	SKSQDADSPGSSGAPENLTFK	R	E	95.00%	2.79	0.241	0	0	1	0	2	2,202.96	1782	1802	TRUE	
SNU216LR_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	8	11	0.07%	4.63%	SQDADSPGSSGAPENLTFK	K	E	95.00%	3.83	0.384	0	2	0	0	2	1,987.83	1784	1802	TRUE	
SNU216LR_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	8	11	0.07%	4.63%	SSPNVANQPPSPGGK	R	S	95.00%	2.93	0.38	0	3	0	0	2	1,516.68	1171	1185	TRUE	
SNU216LR_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	8	11	0.07%	4.63%	TQVLSPDSLFTAK	K	F	95.00%	2.33	0.292	0	1	0	0	2	1,486.72	1727	1739	TRUE	
SNU216LR_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	8	11	0.07%	4.63%	TSSVVTLEVAK	R	Q	95.00%	2.28	0.304	1	0	0	0	2	1,213.61	1080	1090	TRUE	
SNU216LR_PC1_03	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	3.40%	RSSDPVPGPPADTQPSASHPGGQSLK	R	L	95.00%	5.39	0.486	0	0	1	0	2	2,650.23	139	164	TRUE	
SNU216LR_PC1_03	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	3.40%	SESPSKDFGPTLGLK	K	K	95.00%	2.35	0.29	0	1	0	0	2	1,642.77	728	742	TRUE	
SNU216LR_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	8	0.05%	3.34%	KKPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	5.29	0.438	0	0	1	0	2	2,321.10	1391	1413	TRUE	
SNU216LR_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	8	0.05%	3.34%	SPLEHSSPEK	R	E	95.00%	2.28	0.285	0	1	0	0	2	1,190.51	1109	1118	TRUE	
SNU216LR_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	8	0.05%	3.34%	SPLEHSSPEKEAPSPEK	R	T	95.00%	3.69	0.339	0	2	1	0	2	2,008.83	1109	1125	TRUE	
SNU216LR_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	8	0.05%	3.34%	VQEKPDSPGGSTQIQR	R	Y	95.00%	3.17	0.442	0	1	1	0	2	1,806.84	1284	1299	TRUE	
SNU216LR_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	8	0.05%	3.34%	VSPPAPGSAPETPEDK	R	S	95.00%	2.47	0.359	0	1	0	0	2	1,738.70	1260	1275	TRUE	
SNU216LR_PC1_03	Isoform 1 of Eukaryotic translation initiation factc	IPI00163851,IPI00456685	186,842.60	100.00%	2	2	2	0.01%	2.67%	HERPAGPGTPPPDSGPLAK	R	D	95.00%	2.29	0.383	0	1	0	0	2	1,960.93	659	677	TRUE	
SNU216LR_PC1_03	Isoform 1 of Eukaryotic translation initiation factc	IPI00163851,IPI00456685	186,842.60	100.00%	2	2	2	0.01%	2.67%	MPLVEQSPEDSGGQDYVETVIPSNR	K	L	95.00%	4.61	0.318	0	0	1	0	2	2,827.25	545	569	TRUE	
SNU216LR_PC1_03	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	NESEDNKFSDDSDDDFVQPR	R	K	95.00%	3.68	0.515	0	1	0	0	2	2,518.89	983	1002	TRUE	
SNU216LR_PC1_03	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	SEWLDPSQKSPLHVGETR	K	K	95.00%	3.22	0.275	0	0	1	0	2	2,146.00	768	785	TRUE	
SNU216LR_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	2.89%	EGVQGPLNVSLSEEGK	K	S	95.00%	3.89	0.477	0	1	0	0	2	1,722.79	1177	1192	TRUE	
SNU216LR_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	2.89%	GAILSEEELAAMSPTAAAVAK	K	I	95.00%	3.2	0.263	0	0	1	0	2	2,110.01	368	388	TRUE	
SNU216LR_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	2.89%	GNHVIRDEEVSSADISSSSEVISQHLVSYR	R	N	88.70%	6.55	0.0019	0	0	0	1	2	3,380.58	513	542	TRUE	
SNU216LR_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	2.89%	KGAILSEEELAAMSPTAAAVAK	R	I	95.00%	3.83	0.36	0	0	1	0	2	2,238.11	367	388	TRUE	
SNU216LR_PC1_03	golgi phosphoprotein 4	IPI00004962	81,877.50	99.80%	1	1	1	0.01%	4.31%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	4.75	0.523	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216LR_PC1_03	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	3	3	3	0.02%	2.47%	AHTPLNTPDPSTK	R	L	82.70%	2.27	0.136	0	1	0	0	2	1,458.66	1348	1360	TRUE	
SNU216LR_PC1_03	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	3	3	3	0.02%	2.47%	ETEPLVSPHQDK	R	L	95.00%	2.76	0.372	0	1	0	0	2	1,459.65	245	256	TRUE	IPI00442150
SNU216LR_PC1_03	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	3	3	3	0.02%	2.47%	VDSETNIEASKLPTSEPEADAEIEPK	K	E	95.00%	6.56	0.045	0	0	1	0	2	2,879.31	1435	1460	TRUE	
SNU216LR_PC1_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	99.80%	2	3	3	0.02%	3.18%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	4.02	0.274	0	0	1	0	2	2,396.04	714	733	TRUE	
SNU216LR_PC1_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	99.80%	2	3	3	0.02%	3.18%	TLSDPPSPLPHGPPNK	R	G	95.00%	3.14	0.4	0	1	1	0	2	1,813.79	840	855	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	4	6	6	0.04%	3.26%	ESTHQSEDVFLPSPR	R	D	95.00%	2.96	0.272	0	0	1	0	2	1,808.79	956	970	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	4	6	6	0.04%	3.26%	GGIDNPAITSDQELDDKK	K	M	95.00%	4.7	0.472	0	0	1	1	2	1,995.89	1209	1226	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	4	6	6	0.04%	3.26%	RTHSDASDDEAFTTSK	R	T	95.00%	3.39	0.426	0	1	1	0	2	1,847.74	1170	1185	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	4	6	6	0.04%	3.26%	THSDASDDEAFTTSK	R	T	95.00%	2.92	0.515	0	1	0	0	2	1,771.61	1171	1185	TRUE	
SNU216LR_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	173,508.80	100.00%	7	8	10	0.06%	8.61%	HPTGNSITKSPPLMAK	R	R	95.00%	3.21	0.336	0	0	1	0	2	1,758.86	380	395	TRUE	
SNU216LR_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	173,508.80	100.00%	7	8	10	0.06%	8.61%	HSQPSPEPHSPTEPPAWGSSIVK	K	V	95.00%	4.31	0.42	0	0	3	0	2	2,532.16	612	634	TRUE	
SNU216LR_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	173,508.80	100.00%	7	8	10	0.06%	8.61%	NLADEIESYMNLKSPLGSK	R	S	95.00%	3.54	0.454	0	1	1	0	2	2,189.02	879	897	TRUE	
SNU216LR_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	173,508.80	100.00%	7	8	10	0.06%	8.61%	RSSLPLDHGSPAQENPESEK	R	S	95.00%	4.63	0.333	0	0	1	0	2	2,258.01	924	943	TRUE	
SNU216LR_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	173,508.80	100.00%	7	8	10	0.06%	8.61%	SEHTVFIMPPEPPPDDGKDLSPK	K	Y	95.00%	4.27	0.305	0	0	1	0	2	2,613.19	331	353	TRUE	
SNU216LR_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	173,508.80	100.00%	7	8	10	0.06%	8.61%	SSPVPEMLEESQELLEPVVDDVPK	R	T	95.00%	4.16	0.514	0	1	0	0	2	2,746.28	773	796	TRUE	
SNU216LR_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	173,508.80	100.00%	7	8	10	0.06%	8.61%	STSLSALVR	R	S	95.00%	1.85	0.306	0	1	0	0	2	1,013.50	971	979	TRUE	
SNU216LR_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	5	5	5	0.03%	2.44%	AESGPDLR	R	Y	95.00%	1.69	0.343	0	1	0	0	2	924.3824	20	27	TRUE	
SNU216LR_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	5	5	5	0.03%	2.44%	GAGSIAGASASPK	R	E	95.00%	2.61	0.411	0	1	0	0	2	1,153.53	2014	2026	TRUE	
SNU216LR_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	5	5	5	0.03%	2.44%	SGSLSLTQFADMISLK	R	N	95.00%	3.24	0.412	0	1	0	0	2	1,777.84	2549	2564	TRUE	
SNU216LR_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	5	5	5	0.03%	2.44%	SMSFQGIR	R	Q	95.00%	1.93	0.301	0	1	0	0	2	1,005.42	2207	2214	TRUE	
SNU216LR_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	5	5	5	0.03%	2.44%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	5.36	0.0046	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216LR_PC1_03	Histone deacetylase 2	IPI00289601	55,365.50	99.80%	1	2	2	0.01%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGEI	R	I	95.00%	5.79	0.482	0	0	1	1	2	3,665.55	373	405	TRUE	
SNU216LR_PC1_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.80%	2	3	3	0.02%	2.10%	AESLDDQMLSR	R	E	95.00%	2.47	0.244	0	1	0	0	2	1,344.55	719	729	TRUE	
SNU216LR_PC1_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.80%	2	3	3	0.02%	2.10%	SLDEADSENKEEVSPLGSK	R	A	95.00%	3.24	0.423	0	1	1	0	2	2,113.92	1197	1215	TRUE	
SNU216LR_PC1_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	1	2	2	0.01%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	-	95.00%	6.1	0.608	0	0	1	1	2	4,157.70	927	962	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	4	6	0.04%	5.69%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	3.78	0.289	0	0	2	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	4	6	0.04%	5.69%	SEDESETEDEEEK	R	S	95.00%	2.5	0.257	0	1	0	0	2	1,635.54	668	680	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	4	6	0.04%	5.69%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.06	0.552	0	0	1	0	2	2,607.96	668	688	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	4	6	0.04%	5.69%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	5.38	0.6	0	0	2	0	2	2,764.06	668	689	TRUE	
SNU216LR_PC1_03	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	3	3	3	0.02%	1.45%	SNGELSESPGAGK	K	G	95.00%	2.25	0.236	0	1	0	0	2	1,312.54	756	768	TRUE	
SNU216LR_PC1_03	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	3	3	3	0.02%	1.45%	SPILEEKDIPPLEFPK	R	S	95.00%	2.71	0.339	0	0	1	0	2	1,931.98	216	231	TRUE	
SNU216LR_PC1_03	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	3	3	3	0.02%	1.45%	VLDDVSIRSPETK	R	C	95.00%	3.12	0.329	0	1	0	0	2	1,538.75	1292	1304	TRUE	
SNU216LR_PC1_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	4	5	0.03%	2.55%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	4.96	0.49	0	2	1	0	2	2,077.98	64	85	TRUE	
SNU216LR_PC1_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	4	5	0.03%	2.55%	RGSQKSTDSPGADAELPESAAR	R	D	95.00%	3.13	0.111	0	1	0	0	2	2,390.00	14	35	TRUE	
SNU216LR_PC1_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	4	5	0.03%	2.55%	STDSPGADAELPESAAR	K	D	95.00%	3.17	0.523	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216LR_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	3.62%	EKTPATTPEAR	K	V	95.00%	2.13	0.282	0	1	0	0	2	1,360.55	1206	1216	TRUE	
SNU216LR_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	3.62%	KIDTHPSPSHSSTVK	R	D	89.00%	2.93	0.0809	0	1	0	0	2	1,700.80	1336	1350	TRUE	
SNU216LR_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	3.62%	LYINHTPPPLSKSKER	K	E	95.00%	2.62	0.284	0	0	1	1	2	1,960.01	1363	1378	TRUE	
SNU216LR_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	3.62%	TPVSGSLKSPVPR	K	S	95.00%	2.61	0.438	0	0	1	0	2	1,404.72	1308	1320	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	6	9	15	0.09%	4.47%	KNSLISSLEEEVSILNR	R	Q	95.00%	4.03	0.419	0	2	2	0	2	2,011.01	1223	1239	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	6	9	15	0.09%	4.47%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	3.09	0.353	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	6	9	15	0.09%	4.47%	LPPKVESLESLYFTPIPAR	R	S	95.00%	4.18	0.49	0	0	2	0	2	2,237.16	1763	1781	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	6	9	15	0.09%	4.47%	RVSLEPHQGPGTPESK	K	K	95.00%	3.63	0.352	0	0	1	0	2	1,798.85	1989	2004	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	6	9	15	0.09%	4.47%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.44	0.524	0	3	2	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	6	9	15	0.09%	4.47%	VSLEPHQGPGTPESKK	R	A	95.00%	2.62	0.315	0	1	1	0	2	1,770.84	1990	2005	TRUE	
SNU216LR_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	7	11	12	0.07%	3.92%	GLHVVEVTYDDVPIPNSPFK	K	V	95.00%	6.53	0.474	0	1	0	0	2	2,306.11	1300	1319	TRUE	
SNU216LR_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	7	11	12	0.07%	3.92%	IPEINSSDMSAHVTSPSGR	K	V	95.00%	3.62	0.397	0	1	1	0	2	2,064.91	2097	2115	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	7	11	12	0.07%	3.92%	LDVTILSPSR	K	K	95.00%	2.81	0.132	0	1	0	0	2	1,180.60	977	986	TRUE	
SNU216LR_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	7	11	12	0.07%	3.92%	LDVTILSPSRK	K	V	87.90%	2.49	0.13	0	1	0	0	2	1,308.69	977	987	TRUE	
SNU216LR_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	7	11	12	0.07%	3.92%	LVSPGSANETSSILVESVTR	R	S	95.00%	3.97	0.45	0	2	1	0	2	2,126.04	2452	2471	TRUE	
SNU216LR_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	7	11	12	0.07%	3.92%	QKDFLDGVYAFEYYPSTPGR	K	Y	95.00%	3.13	0.318	0	1	1	0	2	2,433.08	503	522	TRUE	
SNU216LR_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	7	11	12	0.07%	3.92%	YADEEIPRSPFK	K	V	95.00%	3.06	0.296	0	1	1	0	2	1,531.68	1497	1508	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	ASPEPPGPESSSR	R	W	95.00%	1.87	0.292	0	1	0	0	2	1,377.57	671	683	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	DAELQDQEFGKRDSLGTYSSR	R	D	95.00%	3.16	0.18	0	1	1	0	2	2,482.09	859	879	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.42	0.261	0	0	1	1	2	2,929.37	1015	1043	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	DVSLGDWEFGKRDSLGAYASQDANEQGQ	R	R	95.00%	6.74	0.565	0	0	1	0	2	3,536.56	880	911	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	EAAFSPGQQDWSR	R	D	95.00%	2.39	0.31	0	1	0	0	2	1,558.63	1099	1111	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	FSEGVLQSPSQDQEK	R	L	95.00%	3.6	0.306	0	1	0	0	2	1,758.76	428	442	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.51	0.352	0	2	2	0	2	2,090.97	1023	1043	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	KEVLASPDR	R	L	95.00%	2.04	0.231	0	1	0	0	2	1,094.52	173	181	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	KEVLASPDRLWGSR	R	L	95.00%	2.76	0.263	0	1	0	0	2	1,693.84	173	186	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	LDSPPPSPITEASEAAEAAEAGNLAVSSR	R	E	95.00%	5.98	0.547	0	0	1	0	2	2,917.35	492	520	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	NRSAEEGELAESK	R	S	95.00%	2.82	0.301	0	0	1	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	PAVEASTGGEATQETGKEEAGKEEPPPLTPP	R	C	95.00%	3.64	0.286	0	0	1	0	2	3,411.60	103	135	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	6.92	0.528	0	1	1	0	2	2,302.99	891	911	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	7.34	0.423	0	1	1	0	2	2,459.10	891	912	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	6.24	0.576	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	RFSEGVLQSPSQDQEK	R	L	95.00%	3.67	0.417	0	1	0	0	2	1,914.86	427	442	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	RPSQGPPARSPSQDFSFIEDTEILDSAMYR	R	S	95.00%	4.61	0.366	0	0	1	1	2	3,477.58	1543	1572	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	SFGTRPLSSGFSPEEAQQQDEEFEK	R	K	95.00%	5.06	0.0641	0	0	1	0	2	2,910.25	976	1000	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.25	0.545	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	SQEADVQDWEFR	R	K	95.00%	3.06	0.442	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	SQEADVQDWEFRK	R	R	95.00%	2.65	0.301	0	1	0	0	2	1,717.72	836	848	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	SSGSEGSSPNWLQALK	K	L	95.00%	2.64	0.386	0	1	0	0	2	1,727.76	1708	1723	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	VPSSDEEVVEEPQSR	R	R	95.00%	3.49	0.405	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	VSGAGFSPSSK	R	M	95.00%	1.97	0.302	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	VVGKPAQLGTQRSQEADVQDWEFR	R	K	95.00%	2.81	0.306	0	0	1	0	2	2,824.34	824	847	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	WLDDLLASPPPSGGGAR	R	R	95.00%	2.82	0.24	0	1	0	0	2	1,788.83	684	700	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	WSDQGPAQTSR	R	R	95.00%	2.23	0.39	0	1	0	0	2	1,312.53	1532	1542	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.89	0.561	0	1	1	0	2	2,166.01	590	608	TRUE	
SNU216LR_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	29	37	39	0.24%	24.90%	YSSQDADEQDWEFQKR	R	D	95.00%	4.57	0.564	0	1	0	0	2	2,111.83	918	933	TRUE	
SNU216LR_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	6	6	6	0.04%	10.60%	LDSSPVLSPGNK	K	A	95.00%	2.87	0.38	0	1	0	0	2	1,293.61	775	786	TRUE	
SNU216LR_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	6	6	6	0.04%	10.60%	NLLHADSNGYTNLPDVVQPSHSPTENSK	R	G	95.00%	4.42	0.358	0	0	1	0	2	3,114.42	897	924	TRUE	
SNU216LR_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	6	6	6	0.04%	10.60%	QNSDPTSEGPGPSPNPPAWVRPDNEAPPK	R	V	95.00%	3.84	0.252	0	0	1	0	2	3,118.39	639	667	TRUE	
SNU216LR_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	6	6	6	0.04%	10.60%	SDSVLPASHGHLPQAGSLER	R	N	95.00%	3.24	0.224	0	0	1	0	2	2,138.00	747	766	TRUE	
SNU216LR_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	6	6	6	0.04%	10.60%	SKPGSTGPEPPIPQASPGPPGPLSQTPPMQF	K	S	95.00%	4.96	0.384	0	0	0	1	2	4,269.08	540	580	TRUE	
SNU216LR_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	6	6	6	0.04%	10.60%	SNSAWQIYLQR	R	R	95.00%	2.05	0.274	0	1	0	0	2	1,445.66	699	709	TRUE	
SNU216LR_PC1_03	Caskin-2	IPI00103516	126,713.60	99.80%	2	2	2	0.01%	2.83%	GSGHSQEQPAPQPSGGDPSPPQER	R	N	95.00%	4.18	0.291	0	0	1	0	2	2,507.06	707	730	TRUE	
SNU216LR_PC1_03	Caskin-2	IPI00103516	126,713.60	99.80%	2	2	2	0.01%	2.83%	SPSQESIGAR	R	S	95.00%	1.65	0.399	0	1	0	0	2	1,111.48	695	704	TRUE	
SNU216LR_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	5.56%	GSVSQPSTPSPPKPTGIFQTSANSSFEPVK	R	S	95.00%	5.02	0.122	0	0	1	0	2	3,139.50	408	437	TRUE	
SNU216LR_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	5.56%	LLPSAPQTLPDGPLASPAR	R	V	95.00%	3.52	0.545	0	1	0	0	2	1,981.02	1771	1789	TRUE	
SNU216LR_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	5.56%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.86	0.0141	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216LR_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	5.56%	RSSLSSHSHQSQIYR	R	S	80.90%	2.77	0.183	0	0	0	1	2	1,852.84	1189	1203	TRUE	
SNU216LR_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	5.56%	SNFSSGPGFPEYGYPADTVWPAMEQVSSRI	R	F	93.30%	6.55	0.0044	0	0	0	1	2	3,882.70	1232	1266	TRUE	
SNU216LR_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	6	6	6	0.04%	5.56%	SSLSSHSHQSQIYR	R	S	95.00%	3.49	0.452	0	0	1	0	2	1,696.74	1190	1203	TRUE	
SNU216LR_PC1_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	5	5	0.03%	6.31%	ALEEGDGSVSGSSPR	R	S	95.00%	3.57	0.458	0	1	1	0	2	1,527.63	418	432	TRUE	
SNU216LR_PC1_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	5	5	0.03%	6.31%	IDENSDKEMEVEESPEK	K	I	95.00%	3.75	0.485	0	1	1	0	2	2,087.84	493	509	TRUE	
SNU216LR_PC1_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	5	5	0.03%	6.31%	RPILQLSPPGPR	R	G	95.00%	1.95	0.242	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216LR_PC1_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	5	5	0.03%	6.31%	TGRDTPENGETAIGAENSEK	K	I	88.50%	2.68	0.177	0	0	1	0	2	2,155.91	473	492	TRUE	
SNU216LR_PC1_03	Cyclin G-associated kinase	IPI00298949	143,192.40	99.80%	1	1	1	0.01%	2.36%	ESESALMEDRDESEVSDEGGSPISSEGQEPR	K	A	95.00%	4.44	0.0968	0	0	1	0	2	3,498.34	814	844	TRUE	
SNU216LR_PC1_03	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	6	0.04%	4.68%	EGSVLDILKSPGFASPK	K	I	95.00%	3.03	0.302	0	1	0	0	2	1,824.91	605	621	TRUE	
SNU216LR_PC1_03	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	6	0.04%	4.68%	EIKDSTSQHDDDNISTTSGFSSR	K	A	95.00%	3.49	0.426	0	0	1	0	2	2,607.08	168	190	TRUE	
SNU216LR_PC1_03	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	6	0.04%	4.68%	NTSLPPLWSPEAER	K	S	95.00%	2.19	0.225	0	2	0	0	2	1,676.77	201	214	TRUE	
SNU216LR_PC1_03	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	4	4	6	0.04%	4.68%	VQMTSPSSTGSPMFK	K	F	95.00%	2.43	0.238	0	2	0	0	2	1,664.71	512	526	TRUE	
SNU216LR_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.62%	AFMESPKQILDSAASLTGSK	K	R	95.00%	3.63	0.411	0	0	1	0	2	2,161.02	1675	1694	TRUE	
SNU216LR_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.62%	ELFQTPDHTEESTTDDKTTK	K	I	95.00%	4.51	0.323	0	0	1	0	2	2,403.02	2081	2100	TRUE	
SNU216LR_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.62%	LTQTSGQSTHTHKEPASGDEGIK	R	V	95.00%	3.4	0.206	0	0	0	1	2	2,489.13	2622	2644	TRUE	
SNU216LR_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.62%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	5.02	0.452	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.62%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	4.65	0.411	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216LR_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.62%	TPVQYSQQQNSPQK	K	H	95.00%	3.29	0.352	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	7	8	8	0.05%	3.62%	TSGETTQTHTEPTGDSK	R	S	95.00%	2.91	0.391	0	0	1	0	2	1,856.75	2504	2520	TRUE	
SNU216LR_PC1_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,061.20	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.24	0.356	0	1	0	0	2	1,754.80	396	412	TRUE	
SNU216LR_PC1_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,061.20	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	3.79	0.459	0	0	1	0	2	2,696.24	369	395	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	AVIVSSPK	K	A	95.00%	1.66	0.289	1	0	0	0	2	880.454	1396	1403	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	HLEAADKGHSPAQKPK	K	T	95.00%	3.88	0.433	0	1	1	1	2	1,793.87	596	611	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	IDLPEVQIEHDPELEKESPGLK	K	N	95.00%	5.38	0.42	0	0	1	1	2	2,595.26	1083	1104	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	7	7	0.04%	2.93%	SRSPMHYMYRPR	R	S	95.00%	3.03	0.231	0	0	0	1	2	1,660.72	508	519	TRUE	
SNU216LR_PC1_03	Peregrin	IPI00023856,IPI00456620	138,186.80	99.80%	2	2	2	0.01%	3.62%	GAGWLSEDEDSPLDALDLVWAK	R	C	95.00%	5.12	0.507	0	1	0	0	2	2,467.11	1077	1098	TRUE	
SNU216LR_PC1_03	Peregrin	IPI00023856,IPI00456620	138,186.80	99.80%	2	2	2	0.01%	3.62%	RLPALSHSEGEEDEDEEEDEGK	R	G	95.00%	2.59	0.311	0	0	1	0	2	2,659.99	455	476	TRUE	
SNU216LR_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	6	9	11	0.07%	4.77%	GEEGSDDDETENGPKPK	K	K	95.00%	4.28	0.516	0	2	1	0	2	1,883.72	988	1004	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	6	9	11	0.07%	4.77%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.34	0.366	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216LR_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	6	9	11	0.07%	4.77%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.43	0.448	0	0	1	0	2	2,436.01	935	955	TRUE	
SNU216LR_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	6	9	11	0.07%	4.77%	KGSGSEQEGEDEEGGER	R	K	95.00%	4.35	0.613	0	2	1	0	2	1,859.69	961	977	TRUE	
SNU216LR_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	6	9	11	0.07%	4.77%	KGSGSEQEGEDEEGGERK	R	K	95.00%	2.05	0.36	0	1	0	0	2	2,067.75	961	978	TRUE	
SNU216LR_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	6	9	11	0.07%	4.77%	RKGSGSEQEGEDEEGGER	R	K	95.00%	3.26	0.336	0	1	1	0	2	2,095.76	960	977	TRUE	
SNU216LR_PC1_03	Isoform 1 of Hepatocyte growth factor receptor p	IPI00029273,IPI00294528	155,529.20	100.00%	1	1	3	0.02%	1.22%	SVSPTTEMVSNESVDYR	R	A	95.00%	2.83	0.286	0	3	0	0	2	1,980.83	988	1004	TRUE	
SNU216LR_PC1_03	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.39%	AEEGKSPFRESSGDGMK	R	M	95.00%	3.02	0.331	0	0	1	0	2	1,891.79	753	769	TRUE	
SNU216LR_PC1_03	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.39%	APSLTDLVK	K	S	95.00%	2.08	0.266	0	1	0	0	2	1,023.51	1053	1061	TRUE	
SNU216LR_PC1_03	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.39%	LVEPHSPSPSSK	R	F	95.00%	2.54	0.249	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216LR_PC1_03	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	4.39%	TNSPAYSDISDAGEDGEGKVDSVK	K	S	95.00%	5.91	0.0359	0	0	1	0	2	2,521.06	840	863	TRUE	
SNU216LR_PC1_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	2	2	0.01%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	3.23	0.319	0	0	1	0	2	2,141.98	652	670	TRUE	
SNU216LR_PC1_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	2	2	0.01%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	5.07	0.374	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC1_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	2	2	0.01%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	4.36	0.414	0	0	1	0	2	2,298.08	9	31	TRUE	
SNU216LR_PC1_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	2	2	0.01%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.26	0.345	0	0	1	0	2	2,541.20	7	31	TRUE	
SNU216LR_PC1_03	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	2	4	4	0.02%	2.02%	HRSLTAHSLLPLAEK	R	Q	95.00%	3.92	0.335	0	0	1	1	2	1,752.92	1379	1393	TRUE	
SNU216LR_PC1_03	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	2	4	4	0.02%	2.02%	VLAVSLINEALDKGSPEK	R	T	95.00%	4.17	0.339	0	1	1	0	2	1,963.02	482	499	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NSSDQEGNNISSSSGHR	K	V	95.00%	2.23	0.203	0	1	0	0	2	1,855.72	275	291	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NTPVSPGSTFPDVKPDLEDVDGVLFVSFESK	K	E	95.00%	5.44	0.521	0	0	1	0	2	3,402.60	641	671	TRUE	
SNU216LR_PC1_03	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	SILPYPVSPK	K	Q	85.80%	2.1	0.147	0	1	0	0	2	1,180.60	917	926	TRUE	
SNU216LR_PC1_03	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	2.47%	NIPSPGQLDPDTR	R	I	95.00%	2.39	0.374	0	1	0	0	2	1,489.67	2556	2568	TRUE	
SNU216LR_PC1_03	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	2.47%	TPFKDEIDEFANSPSEDKEESMEIHATGK	R	H	95.00%	4.99	0.345	0	0	0	1	2	3,361.45	1862	1890	TRUE	
SNU216LR_PC1_03	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	2.47%	VPVHQHSPSEPFLEKPVPDMTQVSGPNAQ	K	S	95.00%	5.65	0.429	0	0	0	1	2	3,572.76	551	582	TRUE	
SNU216LR_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	GDSLKEPTSIAESSR	R	H	95.00%	3.06	0.375	0	1	1	0	2	1,656.75	325	339	TRUE	
SNU216LR_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	GVGSPEPGPTAPYLGR	R	S	95.00%	3.23	0.275	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216LR_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.27	0.27	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216LR_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	SKGSLEITESQSADAEPPPPPKPDLSR	K	Y	93.10%	4.58	0.0724	0	0	1	0	2	2,913.39	243	269	TRUE	
SNU216LR_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.06	0.416	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216LR_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	9	9	0.06%	3.61%	EHQEMDEGSQSLEK	K	L	83.20%	2.23	0.167	0	1	0	0	2	1,726.66	1296	1309	TRUE	
SNU216LR_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	9	9	0.06%	3.61%	EVSPSDVR	R	E	95.00%	1.81	0.326	0	1	0	0	2	968.4085	1951	1958	TRUE	
SNU216LR_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	9	9	0.06%	3.61%	GREVSPSDVR	R	E	95.00%	2.31	0.287	0	1	0	0	2	1,181.53	1949	1958	TRUE	
SNU216LR_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	9	9	0.06%	3.61%	NLSFNELYPSGTLK	R	L	95.00%	2.37	0.375	0	1	0	0	2	1,662.78	1548	1561	TRUE	
SNU216LR_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	9	9	0.06%	3.61%	SLPSSSQLKGSPQAISR	R	A	95.00%	3.62	0.339	0	1	1	0	2	1,822.91	1159	1175	TRUE	
SNU216LR_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	9	9	0.06%	3.61%	STPLASPSPSPGRSPQR	R	L	95.00%	3.31	0.468	0	1	1	0	2	1,801.86	1218	1234	TRUE	
SNU216LR_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	9	9	0.06%	3.61%	TTSFFLNSPEKEHQEMDEGSQSLEK	K	L	95.00%	4.58	0.167	0	0	1	0	2	2,978.28	1285	1309	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.56	0.338	0	0	3	0	2	2,279.98	667	686	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	GLAGPPASPGK	K	A	95.00%	2.29	0.396	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.77	0.492	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	KLQLERPVSPETQADLQR	R	N	95.00%	3.52	0.462	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216LR_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	5	7	0.04%	5.46%	EIQNGNLHESDSESVPR	K	D	95.00%	3.19	0.347	0	3	0	0	2	1,990.85	66	82	TRUE	
SNU216LR_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	5	7	0.04%	5.46%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.52	0.287	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216LR_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	5	7	0.04%	5.46%	TENVFVDEPLIHATTYIPLMDNADSSPVVDK	K	E	95.00%	5.75	0.458	0	0	1	1	2	3,666.74	218	249	TRUE	
SNU216LR_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	5	7	0.04%	5.46%	VEPVPVTKQPTPPSEAAASK	K	K	95.00%	2.72	0.241	0	0	1	0	2	2,113.06	143	162	TRUE	
SNU216LR_PC1_03	chromatin-specific transcription elongation factor	IPI00026970	119,917.40	100.00%	1	1	1	0.01%	2.01%	ESLGSEEESGKDWDELEEEAR	K	K	95.00%	2.66	0.33	0	0	1	0	2	2,583.97	978	998	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	AVTPVPTK	R	T	95.00%	1.46	0.283	1	0	0	0	2	892.4541	524	531	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.33	0.551	0	1	1	0	2	1,792.91	524	539	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.05	0.531	0	0	1	1	2	3,607.64	74	113	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	D	95.00%	4.52	0.33	0	0	0	1	2	3,763.74	74	114	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	ETESAPGSPR	K	A	95.00%	2.09	0.474	0	1	0	0	2	1,110.45	514	523	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.65	0.401	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	GLSASLPDLDSENWIEVKK	K	R	95.00%	3.33	0.331	0	0	1	0	2	2,181.05	544	562	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	HSSNPPLESHVGWVMDSR	R	E	95.00%	3.74	0.464	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	KGSKVGDFGDAINWPTPGEIAHK	R	S	95.00%	3.43	0.329	0	0	0	1	2	2,504.20	163	185	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	KNTFTAWSDEESDYEIDDRDVNK	R	I	95.00%	4.12	0.097	0	0	1	0	2	2,937.15	620	642	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.43	0.429	0	0	2	0	2	2,405.19	130	152	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	5.35	0.137	0	0	1	0	2	2,729.09	621	642	TRUE	
SNU216LR_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	13	15	18	0.11%	17.00%	SLPTTVPESPNYR	R	N	95.00%	2.91	0.31	0	3	0	0	2	1,620.67	766	778	TRUE	
SNU216LR_PC1_03	Protein C10orf12	IPI00166933	137,225.80	99.80%	2	2	2	0.01%	4.57%	EDNPEEPSKEITSHEEGGGDVSPR	R	K	95.00%	4.41	0.24	0	0	1	0	2	2,675.11	252	275	TRUE	
SNU216LR_PC1_03	Protein C10orf12	IPI00166933	137,225.80	99.80%	2	2	2	0.01%	4.57%	ESSTFTDENPSETEESEAAGGIGKLEGEDGD	K	C	95.00%	3.01	0.212	0	0	1	0	2	3,494.45	439	471	TRUE	
SNU216LR_PC1_03	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	3	3	3	0.02%	6.24%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	5.01	0.395	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216LR_PC1_03	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	3	3	3	0.02%	6.24%	RLLGPAPEDDGGHNDHSQPQASQDQDSH	R	-	95.00%	5.21	0.487	0	0	0	1	2	3,713.62	1234	1267	TRUE	
SNU216LR_PC1_03	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	3	3	3	0.02%	6.24%	VLHSSNPVPLYAPNLSPPADSR	K	I	95.00%	5.14	0.441	0	0	1	0	2	2,411.18	558	579	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	5	0.03%	10.40%	LPLVPESPRR	R	M	95.00%	2.34	0.171	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	5	0.03%	10.40%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	3.05	0.394	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	5	0.03%	10.40%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.14	0.514	0	0	1	0	2	2,008.94	381	399	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	5	0.03%	10.40%	SQDATFSPGSEQAEK	R	S	95.00%	2.94	0.244	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	5	0.03%	10.40%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.28	0.368	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216LR_PC1_03	Tripartite motif protein 56	IPI00514832	81,487.20	98.60%	1	1	1	0.01%	2.38%	EPSPALGPNLDGSGLLPR	R	P	95.00%	2.97	0.411	0	1	0	0	2	1,869.91	473	490	TRUE	
SNU216LR_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.05%	AKPVVSDDDSEEEQEEDR	R	S	95.00%	3.11	0.484	0	1	0	0	2	2,236.82	1654	1671	TRUE	
SNU216LR_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.05%	DSDAGSSTPTTSTR	R	S	82.40%	3.33	0.01	0	1	0	0	2	1,462.57	1448	1461	TRUE	
SNU216LR_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.05%	GRPPAEKLSPNPPNLTK	R	K	95.00%	3.47	0.254	0	0	1	0	2	1,895.97	1476	1492	TRUE	
SNU216LR_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.05%	IPDPDSDDVSEVDAR	K	H	95.00%	2.73	0.412	0	1	0	0	2	1,709.69	690	704	TRUE	
SNU216LR_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.05%	KIPDPDSDDVSEVDAR	K	H	95.00%	3.57	0.564	0	1	1	0	2	1,837.79	689	704	TRUE	
SNU216LR_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.05%	KKIPDPDSDDVSEVDAR	K	H	95.00%	2.21	0.23	0	1	0	0	2	2,045.85	688	704	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.05%	KRDSDAGSSTPTTSTR	R	S	95.00%	3.16	0.368	0	1	1	0	2	1,746.77	1446	1461	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	3	3	3	0.02%	3.73%	AAQQQQPSASPR	R	A	95.00%	2.36	0.273	0	1	0	0	2	1,348.60	1444	1455	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	3	3	3	0.02%	3.73%	GEADDEDDDEDGQDNQGTVTEGSSPAYLK	K	E	95.00%	3.16	0.192	0	0	1	0	2	3,137.19	155	183	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	3	3	3	0.02%	3.73%	YIEGLSAESNSISKWDQTLAAR	K	R	88.70%	2.78	0.151	0	0	1	0	2	2,599.15	1613	1634	TRUE	
SNU216LR_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	IRAEEEDLAAVPFLASDNEEEEDEKGNSGSLI	R	K	95.00%	5.53	0.433	0	0	0	1	2	3,712.69	2913	2945	TRUE	
SNU216LR_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	KDEEETPAPIYR	R	A	88.00%	2.22	0.194	0	1	0	0	2	1,527.67	82	93	TRUE	
SNU216LR_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	KQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.8	0.515	0	0	1	0	2	2,407.23	2452	2472	TRUE	
SNU216LR_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	RKQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.14	0.433	0	0	1	1	2	2,563.33	2451	2472	TRUE	
SNU216LR_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	8	8	0.05%	4.36%	ANASPQKPLDLK	R	Q	95.00%	3.13	0.311	0	1	1	0	2	1,361.68	953	964	TRUE	
SNU216LR_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	8	8	0.05%	4.36%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	3.91	0.389	0	1	1	0	2	2,327.88	548	567	TRUE	
SNU216LR_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	8	8	0.05%	4.36%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	3.66	0.497	0	0	1	0	2	2,563.19	145	166	TRUE	
SNU216LR_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	8	8	0.05%	4.36%	LLSPRPSLLTPTGDPR	R	A	95.00%	3.01	0.383	0	0	1	0	2	1,799.94	937	952	TRUE	
SNU216LR_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	8	8	0.05%	4.36%	TDDTSGEDNDEKEAVASK	K	G	95.00%	2.56	0.395	0	1	0	0	2	2,070.74	550	567	TRUE	
SNU216LR_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	8	8	0.05%	4.36%	VHEPPREDAAPTKPAPPAPPPPQNLQPESD	K	G	95.00%	6.22	0.572	0	0	0	1	2	4,265.04	981	1020	TRUE	
SNU216LR_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.45%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	2.96	0.279	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216LR_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.45%	EKEEPPSPIEATPPQSLLEK	K	V	95.00%	3.55	0.386	0	0	2	0	2	2,299.11	468	487	TRUE	
SNU216LR_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.45%	ESASPTIPNLDLLEAHTK	K	E	95.00%	3.39	0.442	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216LR_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.45%	GSDDAPYSPTAR	K	V	95.00%	2.48	0.239	0	1	0	0	2	1,316.52	898	909	TRUE	
SNU216LR_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.45%	KGSDDAPYSPTAR	R	V	95.00%	2.37	0.218	0	1	0	0	2	1,444.61	897	909	TRUE	
SNU216LR_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.45%	LEKSPLAGNK	K	D	95.00%	2.12	0.257	0	1	0	0	2	1,136.57	622	631	TRUE	
SNU216LR_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.45%	SRESASPTIPNLDLLEAHTK	K	E	95.00%	3.2	0.203	0	0	1	0	2	2,259.10	534	553	TRUE	
SNU216LR_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	8	8	0.05%	6.91%	DKSDSPAIQLR	R	L	86.50%	2.06	0.184	0	1	0	0	2	1,309.62	936	946	TRUE	
SNU216LR_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	8	8	0.05%	6.91%	GDLSDVEEEEEEEMDVDEATGAVK	R	K	95.00%	4.86	0.438	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216LR_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	8	8	0.05%	6.91%	GDLSDVEEEEEEEMDVDEATGAVKK	R	H	95.00%	4.86	0.539	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216LR_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	8	8	0.05%	6.91%	RLDDQESPVYAAQQR	R	R	95.00%	3.3	0.377	0	1	0	0	2	1,855.83	4	18	TRUE	
SNU216LR_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	8	8	0.05%	6.91%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	4.86	0.297	0	0	1	1	2	4,089.02	277	313	TRUE	
SNU216LR_PC1_03	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	1	1	1	0.01%	0.63%	LTAGVPDTPTR	R	L	95.00%	2.33	0.182	0	1	0	0	2	1,207.57	1453	1463	TRUE	
SNU216LR_PC1_03	Mediator of RNA polymerase II transcription subu	IPI00004068,IPI00640149,IP	243,081.20	99.80%	2	2	2	0.01%	1.58%	GDLAFGAPGPRPPSPFDDPADDPEHK	R	E	95.00%	2.76	0.195	0	0	1	0	2	2,782.22	622	647	TRUE	
SNU216LR_PC1_03	Mediator of RNA polymerase II transcription subu	IPI00004068,IPI00640149,IP	243,081.20	99.80%	2	2	2	0.01%	1.58%	GDLAFGAPGPRPPSPFDDPADDPEHKEAEG	R	L	95.00%	4.46	0.378	0	0	0	1	2	3,644.58	622	656	TRUE	
SNU216LR_PC1_03	Isoform 1 of Alsin	IPI00295004	183,668.60	99.10%	2	3	3	0.02%	2.23%	RLSLPGLLSQVSPR	R	L	81.30%	2.65	0.123	0	0	1	0	2	1,682.84	481	494	TRUE	
SNU216LR_PC1_03	Isoform 1 of Alsin	IPI00295004	183,668.60	99.10%	2	3	3	0.02%	2.23%	SESPEPGYVVTSSGLLLPVLLPR	R	L	95.00%	5.29	0.0186	0	1	1	0	2	2,490.29	1462	1484	TRUE	
SNU216LR_PC1_03	Isoform 1 of Abnormal spindle-like microcephaly-	IPI00296362,IPI00743813	409,976.90	99.00%	1	1	1	0.01%	0.26%	IHFSPSEPK	R	T	80.70%	1.66	0.259	0	1	0	0	2	1,121.50	602	610	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	DNQESSDAELSSSEYIK	K	T	95.00%	3.6	0.407	0	1	0	0	2	1,981.79	622	638	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	KPGPPLSPEIRSPAGSPELR	R	K	95.00%	2.86	0.293	0	0	1	0	2	2,325.04	421	440	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	KPGPSGPSESPK	R	A	95.00%	2.44	0.299	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.18	0.383	0	0	2	0	2	1,970.88	441	456	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	5.04	0.444	0	0	1	0	2	2,526.21	280	301	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	KTSPASLDFPESQK	R	S	95.00%	3.4	0.41	0	0	1	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	3.83	0.544	0	1	1	0	2	2,314.11	199	219	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	MDMTSPEQSR	K	N	94.90%	1.74	0.26	0	1	0	0	2	1,261.46	671	680	TRUE	
SNU216LR_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	10	11	0.07%	17.40%	TAPTLSPEHWK	K	A	95.00%	2.18	0.24	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	5	5	5	0.03%	1.53%	DETPTLEASLDNANSR	R	L	95.00%	3.14	0.371	0	1	0	0	2	1,812.76	2147	2162	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	5	5	5	0.03%	1.53%	RHDEDEDDSLKDR	R	E	95.00%	2.96	0.372	0	0	1	0	2	1,709.68	891	903	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	5	5	5	0.03%	1.53%	RRSNTLDIMDGR	R	I	95.00%	2.71	0.24	0	0	1	0	2	1,513.69	1515	1526	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	5	5	5	0.03%	1.53%	RSNTLDIMDGR	R	I	95.00%	2.26	0.324	0	1	0	0	2	1,357.59	1516	1526	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	5	5	5	0.03%	1.53%	SNTLDIMDGR	R	I	95.00%	2.92	0.52	0	1	0	0	2	1,201.49	1517	1526	TRUE	
SNU216LR_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	5.95%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	4.93	0.412	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216LR_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	5.95%	LASPMKPVPGTPPSSK	K	A	95.00%	2.74	0.261	0	1	0	0	2	1,673.83	1205	1220	TRUE	
SNU216LR_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	5.95%	LSSSDSIGPDVTDILSDIAEEASK	R	L	95.00%	5.4	0.0161	0	1	0	0	2	2,529.15	769	792	TRUE	
SNU216LR_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	5.95%	NSSQSGGKPGSSPITK	K	H	95.00%	3.5	0.483	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216LR_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	5	5	5	0.03%	5.95%	SQTPPGVATPPIPK	R	I	95.00%	2.45	0.22	0	1	0	0	2	1,469.74	1049	1062	TRUE	
SNU216LR_PC1_03	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.40%	LLGSLDEVVLLSPVPELRDSSK	K	L	95.00%	3.75	0.373	0	0	1	0	2	2,446.28	544	565	TRUE	
SNU216LR_PC1_03	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.40%	NFDFEGSLSPVIAPK	R	K	82.90%	2.45	0.122	0	1	0	0	2	1,700.79	680	694	TRUE	
SNU216LR_PC1_03	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.40%	QLQPASELWSSDGAAGLVGSLQEVTIHEK	R	Q	95.00%	4.83	0.5	0	0	1	0	2	3,130.51	41	69	TRUE	
SNU216LR_PC1_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.15%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	3.61	0.43	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216LR_PC1_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.15%	PGTPSDHQSQEASQFER	R	K	95.00%	3.9	0.506	0	1	0	0	2	1,980.81	380	396	TRUE	
SNU216LR_PC1_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.15%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	95.00%	3.52	0.192	0	0	1	1	2	3,783.64	362	396	TRUE	
SNU216LR_PC1_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	1	1	1	0.01%	2.75%	RVSEVEEEKEPVQPLPSDDTR	R	V	95.00%	3.96	0.273	0	0	1	0	2	2,616.22	446	467	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	AAVLSDSEDEEKASAK	K	K	95.00%	2.43	0.256	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	EAEDSDSDDNIKR	K	G	95.00%	2.54	0.351	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	GPASDSETEDASR	K	H	95.00%	1.87	0.352	0	1	0	0	2	1,481.48	310	322	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	HQASDSENEEPPKPR	R	M	95.00%	2.43	0.484	0	1	1	0	2	1,880.72	193	207	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	KAAVLSDSEDEEKASAK	R	K	95.00%	2.65	0.213	0	1	1	0	2	1,937.81	393	409	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	MDSDEDEKEGEEEK	K	V	95.00%	3	0.496	0	2	0	0	2	1,765.60	375	388	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	NQASDSENEELPKPR	R	V	95.00%	2.69	0.384	0	1	0	0	2	1,873.74	284	298	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	QKMDSDEDEKEGEEEK	K	V	95.00%	3.13	0.204	0	0	1	0	2	2,005.76	373	388	TRUE	
SNU216LR_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	9	11	12	0.07%	12.90%	TIASDSEEEAGKELSDK	K	K	95.00%	2.36	0.343	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	AEPSEVDMNSPK	K	S	95.00%	2.65	0.314	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	EEPSQNDISPK	K	T	80.80%	2.29	0.14	0	1	0	0	2	1,323.55	81	91	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	3.93	0.419	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	KEEPSQNDISPK	K	T	95.00%	3.23	0.331	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.68	0.463	0	1	1	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.42	0.361	0	1	1	0	2	1,579.74	79	91	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	3.84	0.427	0	3	1	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	14	0.09%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	3.94	0.358	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216LR_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	6	0.04%	1.95%	DPGLEPGPDSPGGSSPPR	K	R	95.00%	3.23	0.5	0	2	0	0	2	1,798.76	963	980	TRUE	
SNU216LR_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	6	0.04%	1.95%	DPGLEPGPDSPGGSSPPRR	K	Q	95.00%	2.77	0.367	0	2	0	0	2	2,034.83	963	981	TRUE	
SNU216LR_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	6	0.04%	1.95%	SGSEEAVTDPGER	R	E	95.00%	2.61	0.403	0	1	0	0	2	1,413.55	1200	1212	TRUE	
SNU216LR_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	6	0.04%	1.95%	TASELLLDR	R	R	95.00%	2.05	0.306	0	1	0	0	2	1,097.52	1225	1233	TRUE	
SNU216LR_PC1_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLR	K	K	95.00%	1.91	0.285	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC1_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLRK	K	L	95.00%	2.51	0.371	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216LR_PC1_03	Isoform 7 of Titin	REVERSE_IPI00179357-R,RE	3,734,470.50	99.60%	1	1	1	0.01%	0.07%	VQLTAPDGQTVDISVAEETITAPEK	K	V	92.40%	3.01	0.162	0	0	0	1	2	2,772.26	28824	28848	TRUE	
SNU216LR_PC1_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.80%	2	3	3	0.02%	3.92%	AHAWPSPYK	R	D	95.00%	1.64	0.334	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216LR_PC1_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.80%	2	3	3	0.02%	3.92%	AHAWPSPYKDYEVK	R	K	95.00%	3.22	0.369	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC1_03	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	99.80%	2	2	2	0.01%	3.05%	AVPVESPVQKV	K	-	95.00%	2.06	0.391	0	1	0	0	2	1,232.63	422	432	TRUE	
SNU216LR_PC1_03	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	99.80%	2	2	2	0.01%	3.05%	KAVPVESPVQKV	K	-	95.00%	2.72	0.431	0	1	0	0	2	1,360.72	421	432	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	6	7	0.04%	3.70%	KMSDDEDDDEEEYGKEEHEK	K	E	95.00%	5.82	0.524	0	0	1	2	2	2,536.92	123	142	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	6	7	0.04%	3.70%	MSDDEDDDEEEYGKEEHEK	K	E	95.00%	4.43	0.596	0	1	1	0	2	2,408.82	124	142	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	6	7	0.04%	3.70%	RTSFDDRLEDDDFDLIEENLGVK	K	V	95.00%	4.08	0.386	0	0	1	0	2	2,821.26	89	111	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	4	6	7	0.04%	3.70%	TRTPASINATPANINLADLTR	R	A	95.00%	3.32	0.392	0	1	0	0	2	2,370.12	1532	1552	TRUE	
SNU216LR_PC1_03	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	5	5	0.03%	1.80%	EKQEEEVDYESEEEEER	K	E	95.00%	3.82	0.427	0	1	1	0	2	2,265.86	1419	1435	TRUE	
SNU216LR_PC1_03	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	5	5	0.03%	1.80%	EKQEEEVDYESEEEEEREGEENDDEDMQEE	K	N	95.00%	4.75	0.534	0	0	1	1	2	3,971.46	1419	1449	TRUE	
SNU216LR_PC1_03	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	5	5	0.03%	1.80%	QEEEVDYESEEEEER	K	E	95.00%	2.49	0.334	0	1	0	0	2	2,008.72	1421	1435	TRUE	
SNU216LR_PC1_03	Talin-1	IPI00298994	271,170.80	100.00%	3	4	5	0.03%	0.94%	DHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	5.17	0.414	0	0	1	0	2	2,530.07	407	428	TRUE	
SNU216LR_PC1_03	Talin-1	IPI00298994	271,170.80	100.00%	3	4	5	0.03%	0.94%	SKDHFGLEGDEESTMLEDSVSPK	K	K	95.00%	5.49	0.387	0	0	2	0	2	2,617.10	405	427	TRUE	
SNU216LR_PC1_03	Talin-1	IPI00298994	271,170.80	100.00%	3	4	5	0.03%	0.94%	SKDHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	5.5	0.37	0	0	1	1	2	2,745.20	405	428	TRUE	
SNU216LR_PC1_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	3	3	3	0.02%	4.04%	DPSASPGDAGEQAIR	R	Q	95.00%	2.54	0.251	0	1	0	0	2	1,550.65	286	300	TRUE	
SNU216LR_PC1_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	3	3	3	0.02%	4.04%	GWLRDPSASPGDAGEQAIR	K	Q	95.00%	3.42	0.346	0	0	1	0	2	2,062.93	282	300	TRUE	
SNU216LR_PC1_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	3	3	3	0.02%	4.04%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	4.52	0.439	0	0	1	0	2	2,657.30	709	732	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	7	7	0.04%	12.60%	APESDTGDEDQDQERDTVFLK	R	D	95.00%	2.3	0.316	0	1	0	0	2	2,475.02	575	595	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	7	7	0.04%	12.60%	DKSDSDTEGLLFSR	R	D	95.00%	3.03	0.38	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	7	7	0.04%	12.60%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.66	0.328	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	7	7	0.04%	12.60%	SDSDTEGLLFSR	K	D	95.00%	2.32	0.379	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	7	7	0.04%	12.60%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.79	0.436	0	0	1	1	2	2,794.21	430	455	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	7	7	0.04%	12.60%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	R	T	93.80%	6.56	0.0058	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	100.00%	3	4	4	0.02%	4.92%	LVPRPGSGSSSGSSNSGSQPGSHPGSQSGS	K	F	95.00%	2.89	0.36	0	0	1	0	2	3,148.37	671	703	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	100.00%	3	4	4	0.02%	4.92%	RDSPLQGSGQQNSQAGQR	R	N	95.00%	4.58	0.555	0	1	1	0	2	1,993.88	637	654	TRUE	
SNU216LR_PC1_03	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	100.00%	3	4	4	0.02%	4.92%	TTSRSPVLSR	R	R	95.00%	2.53	0.2	0	1	0	0	2	1,183.58	627	636	TRUE	
SNU216LR_PC1_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.80%	2	2	2	0.01%	5.58%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	4.78	0.26	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216LR_PC1_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.80%	2	2	2	0.01%	5.58%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.52	0.47	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216LR_PC1_03	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	5	0.03%	1.62%	IPSPNILK	R	T	95.00%	1.7	0.283	0	1	0	0	2	961.512	2099	2106	TRUE	
SNU216LR_PC1_03	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	5	0.03%	1.62%	RSSPPPPPSGSSSR	R	T	95.00%	2.67	0.413	0	0	1	0	2	1,475.66	38	51	TRUE	
SNU216LR_PC1_03	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	5	0.03%	1.62%	TKSPKPAESPQSATK	R	Q	95.00%	3.55	0.262	0	2	1	0	2	1,636.79	1035	1049	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	5	5	5	0.03%	2.15%	KLANDFPLDLSPVK	R	K	95.00%	3.65	0.451	0	1	0	0	2	1,636.83	678	691	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	5	5	5	0.03%	2.15%	LANDFPLDLSPVK	K	K	95.00%	2.42	0.347	0	1	0	0	2	1,508.74	679	691	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	5	5	5	0.03%	2.15%	NNSRVSPVPLSGAAAGTEQK	R	T	95.00%	3.59	0.422	0	0	1	0	2	2,062.99	2167	2186	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	5	5	5	0.03%	2.15%	VIIPSPPKDDSPQLSEELRR	K	A	95.00%	2.54	0.257	0	0	1	0	2	2,356.19	1743	1762	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	5	5	5	0.03%	2.15%	VSPVPLSGAAAGTEQK	R	T	95.00%	2.04	0.362	0	1	0	0	2	1,591.77	2171	2186	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 2	IPI00015973	112,587.80	99.90%	2	3	3	0.02%	3.28%	EVAENQQNQSSDPEEEKGSQPPPAAESQS	K	R	95.00%	2.95	0.475	0	0	1	0	2	3,533.53	29	60	TRUE	
SNU216LR_PC1_03	Band 4.1-like protein 2	IPI00015973	112,587.80	99.90%	2	3	3	0.02%	3.28%	EVAENQQNQSSDPEEEKGSQPPPAAESQS	K	Q	95.00%	3.27	0.295	0	0	1	1	2	3,689.63	29	61	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger MYM-type protein 3	IPI00029484,IPI00219027,IP	152,379.90	100.00%	2	3	3	0.02%	3.80%	FYSQQNQPNLDTQSGPESLLNSQSPESKPQ	R	V	84.20%	4.4	0.07	0	0	0	1	2	4,070.86	751	786	TRUE	
SNU216LR_PC1_03	Isoform 1 of Zinc finger MYM-type protein 3	IPI00029484,IPI00219027,IP	152,379.90	100.00%	2	3	3	0.02%	3.80%	TGSPGPELLFHEGQQK	K	R	95.00%	3.29	0.375	0	1	1	0	2	1,804.83	462	477	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEK	R	N	95.00%	4.82	0.476	0	0	1	0	2	2,474.01	412	432	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEKNETEPPK	R	G	95.00%	6.7	0.428	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEKNETEPPKGK	R	K	95.00%	4.49	0.284	0	0	1	0	2	3,454.51	412	441	TRUE	
SNU216LR_PC1_03	COPA protein	IPI00646493	139,327.40	100.00%	3	3	3	0.02%	4.30%	GQEEGGGWDVEEDLELPPELDISPGAAGGA	K	G	95.00%	2.89	0.273	0	0	1	0	2	4,191.86	882	921	TRUE	
SNU216LR_PC1_03	COPA protein	IPI00646493	139,327.40	100.00%	3	3	3	0.02%	4.30%	KNLSPGAVESDVR	K	G	95.00%	2.45	0.275	0	1	0	0	2	1,451.69	170	182	TRUE	
SNU216LR_PC1_03	COPA protein	IPI00646493	139,327.40	100.00%	3	3	3	0.02%	4.30%	NLSPGAVESDVR	K	G	95.00%	2.67	0.466	0	1	0	0	2	1,323.59	171	182	TRUE	
SNU216LR_PC1_03	Cytoskeleton-associated protein 5	IPI00028275,IPI00472887	225,515.80	100.00%	1	1	1	0.01%	1.38%	HSTSGTDEGEDGDEPDDGSNDVVDLLPR	K	T	93.80%	5.13	0.0537	0	0	1	0	2	3,008.19	827	854	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	157,272.00	100.00%	3	3	3	0.02%	4.00%	ELEQHIQTSDPENFQSEER	R	S	95.00%	4.49	0.444	0	0	1	0	2	2,396.00	925	943	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	157,272.00	100.00%	3	3	3	0.02%	4.00%	ETWDTAEEDSGTDSEYDESGK	K	S	95.00%	2.81	0.415	0	1	0	0	2	2,430.86	1004	1024	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	157,272.00	100.00%	3	3	3	0.02%	4.00%	LFVLLPEQSPVSYSK	R	R	95.00%	3.26	0.375	0	1	0	0	2	1,786.90	824	838	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	6	6	0.04%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.96	0.485	0	1	1	1	2	1,836.88	210	226	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	6	6	0.04%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	3.41	0.328	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	6	6	0.04%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	3.02	0.3	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216LR_PC1_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	2	4	4	0.02%	2.74%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	3.09	0.373	0	1	1	0	2	2,075.92	342	359	TRUE	
SNU216LR_PC1_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	2	4	4	0.02%	2.74%	KRSPSPSPTPEAK	R	K	95.00%	3.09	0.36	0	1	1	0	2	1,461.71	300	312	TRUE	
SNU216LR_PC1_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	4	4	0.02%	3.82%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.83	0.505	0	0	1	0	2	2,262.99	1355	1377	TRUE	
SNU216LR_PC1_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	4	4	0.02%	3.82%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	3.96	0.318	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216LR_PC1_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	4	4	0.02%	3.82%	SGSPGSSSYEHYESR	R	K	95.00%	2.32	0.282	0	1	0	0	2	1,789.61	1093	1107	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	AQLSPGIYDDTSAR	K	R	95.00%	2.17	0.432	0	1	0	0	2	1,573.69	1469	1482	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	MPIEDSSPEKGR	R	E	95.00%	3.22	0.383	0	1	0	0	2	1,425.61	1190	1201	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	MPIEDSSPEKGREEAASK	R	G	95.00%	2.27	0.222	0	1	1	0	2	2,040.89	1190	1207	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	NDARSPGSISYLPSFFTK	R	L	95.00%	3.88	0.383	0	0	1	0	2	2,066.96	2180	2197	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	5.2	0.364	0	0	1	1	2	2,989.46	206	231	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	5.25	0.29	0	0	1	0	2	2,522.20	2140	2161	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	SPGSISYLPSFFTK	R	L	95.00%	2.65	0.281	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216LR_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	10	10	0.06%	5.04%	SPNREWEVLQPAPHQVITNLPEGVR	K	L	95.00%	5.18	0.441	0	0	1	0	2	2,946.46	999	1023	TRUE	
SNU216LR_PC1_03	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	GIGTPPNTTPIKNGSPEIK	K	L	91.30%	2.44	0.194	0	1	0	0	2	2,001.01	107	125	TRUE	
SNU216LR_PC1_03	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	IQDPTEDAEAEDTPR	R	K	95.00%	3.24	0.439	0	1	0	0	2	1,766.71	532	546	TRUE	
SNU216LR_PC1_03	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	RIQDPTEDAEAEDTPR	K	K	95.00%	3.27	0.319	0	1	1	0	2	1,922.81	531	546	TRUE	
SNU216LR_PC1_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	1.81%	NDSGEENVPLDLTR	R	E	95.00%	3	0.3	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216LR_PC1_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	1.81%	SNSVSLVPPGSSHTLPR	K	R	95.00%	2.36	0.257	0	0	1	0	2	1,894.85	1282	1298	TRUE	
SNU216LR_PC1_03	Isoform 2 of Dedicator of cytokinesis protein 9	IPI00719015	236,430.60	99.80%	1	1	1	0.01%	0.92%	SNSLDKHQQSSTLGNSVVR	K	C	95.00%	3.17	0.236	0	0	1	0	2	2,137.00	1272	1290	TRUE	
SNU216LR_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	7	7	0.04%	3.55%	AAHVPENSDTEQDVLTVKPVR	R	K	95.00%	5.13	0.487	0	0	1	1	2	2,385.14	1363	1383	TRUE	
SNU216LR_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	7	7	0.04%	3.55%	AAHVPENSDTEQDVLTVKPVRK	R	V	95.00%	4.75	0.379	0	0	0	1	2	2,513.24	1363	1384	TRUE	
SNU216LR_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	7	7	0.04%	3.55%	EPHSPADQPEQQAESTLTSAETR	K	G	95.00%	3.77	0.433	0	0	1	0	2	2,589.11	1325	1347	TRUE	
SNU216LR_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	7	7	0.04%	3.55%	LSFASETPLEKEPHSPADQPEQQAESTLTSAE	R	G	95.00%	5.34	0.483	0	0	1	1	2	3,791.73	1314	1347	TRUE	
SNU216LR_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	7	7	0.04%	3.55%	SLSESSVIMDR	R	A	95.00%	2.09	0.293	0	1	0	0	2	1,303.56	859	869	TRUE	
SNU216LR_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	6	6	0.04%	6.86%	ALMDEEDMDDVVDADEYLIPQQGFFSSPST	R	T	88.80%	5.25	0.0337	0	0	1	0	2	3,687.54	1000	1031	TRUE	
SNU216LR_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	6	6	0.04%	6.86%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.59	0.412	0	1	1	0	2	2,114.05	687	705	TRUE	
SNU216LR_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	6	6	0.04%	6.86%	GSHQISLDNPDYQQDFFPK	K	E	95.00%	3.41	0.331	0	0	1	0	2	2,316.00	1161	1179	TRUE	
SNU216LR_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	6	6	0.04%	6.86%	MHLPSPTDSNFYR	R	A	95.00%	2.71	0.342	0	1	1	0	2	1,644.69	987	999	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	4	4	0.02%	3.22%	KDSSSEVFSDAAK	R	E	95.00%	3.99	0.545	0	1	0	0	2	1,450.61	921	933	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	4	4	0.02%	3.22%	LLSKDDTSPPKDK	K	G	89.00%	2.77	0.207	0	0	1	0	2	1,523.74	1107	1119	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	4	4	0.02%	3.22%	SKSYDEGLDDYREDAK	R	L	95.00%	3.38	0.3	0	0	1	0	2	1,970.80	878	893	TRUE	
SNU216LR_PC1_03	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	4	4	0.02%	3.22%	TTSPPLSIPTTHLIHQPAGSR	R	S	95.00%	3.53	0.328	0	0	1	0	2	2,291.15	316	336	TRUE	
SNU216LR_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.71%	AETPTESVSEPEVATK	K	Q	95.00%	3.46	0.491	0	1	0	0	2	1,754.77	193	208	TRUE	
SNU216LR_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.71%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	4.03	0.264	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216LR_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.71%	TIQEVLEEQSEDEDR	R	E	95.00%	3	0.204	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216LR_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.71%	TIQEVLEEQSEDEDREAK	R	R	95.00%	3.18	0.149	0	1	0	0	2	2,227.96	132	149	TRUE	
SNU216LR_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.71%	TIQEVLEEQSEDEDREAKR	R	K	95.00%	3.11	0.224	0	0	1	0	2	2,384.06	132	150	TRUE	
SNU216LR_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	6	6	7	0.04%	8.71%	VLGSEGEEEDEALSPAK	R	G	95.00%	2.84	0.441	0	2	0	0	2	1,839.79	63	79	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	5	5	5	0.03%	4.82%	ATHTHGALMETLLDYQWDRPEITSPTKPILR	R	S	95.00%	6.9	0.355	0	0	0	1	2	3,670.81	97	127	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	5	5	5	0.03%	4.82%	ENSPVQSIR	R	S	95.00%	1.81	0.277	0	1	0	0	2	1,109.50	1055	1063	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	5	5	5	0.03%	4.82%	LHPDGSPDVAGEK	K	G	95.00%	1.87	0.33	0	1	0	0	2	1,401.60	594	606	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	5	5	5	0.03%	4.82%	SSDPGPDIGVVEESPEKGDEISLR	R	R	95.00%	4.27	0.35	0	0	1	0	2	2,592.17	988	1011	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	5	5	5	0.03%	4.82%	SVSGSPESDELQELR	R	T	95.00%	2.57	0.385	0	1	0	0	2	1,712.74	834	848	TRUE	
SNU216LR_PC1_03	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	3	3	0.02%	2.30%	GTLSDSEIETNSATSTIFGK	R	A	95.00%	4.28	0.0192	0	1	0	0	2	2,137.95	1198	1217	TRUE	
SNU216LR_PC1_03	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	3	3	0.02%	2.30%	KRSPTESVNTPVGK	R	D	95.00%	3.58	0.421	0	0	1	0	2	1,579.78	1037	1050	TRUE	
SNU216LR_PC1_03	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	3	3	0.02%	2.30%	SPTESVNTPVGK	R	D	95.00%	2.18	0.298	0	1	0	0	2	1,295.59	1039	1050	TRUE	
SNU216LR_PC1_03	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	5	6	0.04%	6.34%	GSEDSPPKHAGNNESHSSR	K	R	95.00%	5.51	0.291	0	1	2	1	2	2,072.84	438	456	TRUE	
SNU216LR_PC1_03	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	5	6	0.04%	6.34%	GSEDSPPKHAGNNESHSSRR	K	R	95.00%	2.82	0.239	0	0	0	1	2	2,228.94	438	457	TRUE	
SNU216LR_PC1_03	Phosphatidylserine synthase 1	IPI00010746	55,529.10	100.00%	3	5	6	0.04%	6.34%	TLSKDDVNYK	R	M	95.00%	2.14	0.251	0	1	0	0	2	1,262.57	9	18	TRUE	
SNU216LR_PC1_03	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	4.51	0.347	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216LR_PC1_03	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	R	L	95.00%	5.35	0.502	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216LR_PC1_03	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	EIPEDVDMEEEEKESEDSDEENDFTEK	K	V	95.00%	2.91	0.346	0	0	1	0	2	3,277.17	766	791	TRUE	
SNU216LR_PC1_03	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	VQDTSNTGLGEDIIHQLSK	K	S	95.00%	5.41	0.478	0	1	1	0	2	2,135.00	792	810	TRUE	
SNU216LR_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	3.34%	GGSSKDLLDNQSQEEQRR	R	E	95.00%	4.07	0.424	0	0	1	0	2	2,126.95	1154	1171	TRUE	
SNU216LR_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	3.34%	IEVEADGQTEEILDSQNLNSRRSPVPAQIAIT	K	T	90.80%	3.31	0.164	0	0	0	1	2	3,897.96	473	507	TRUE	
SNU216LR_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	3.34%	RSPVPAQIAITVPK	R	T	95.00%	3.4	0.535	0	1	0	0	2	1,556.86	494	507	TRUE	
SNU216LR_PC1_03	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.80%	1	1	1	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.84	0.37	0	0	1	0	2	1,498.67	12	23	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	3	3	3	0.02%	5.13%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	4.36	0.195	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	3	3	3	0.02%	5.13%	GLVAAYSGESDSEEEQER	R	G	95.00%	3.2	0.206	0	1	0	0	2	2,035.81	792	809	TRUE	
SNU216LR_PC1_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	3	3	3	0.02%	5.13%	HRHSPTGPPGFPR	R	D	95.00%	2.99	0.35	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	ALQLSNSPGASSAFLK	K	A	95.00%	3.64	0.344	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	DEDEGIPSENEEEKK	R	M	95.00%	2.53	0.359	0	1	0	0	2	1,827.72	2342	2356	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	FLSHSTDSLNK	K	I	95.00%	2.4	0.18	0	1	0	0	2	1,328.59	1929	1939	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.98	0.218	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	RAETFGGFDSHQMNASK	R	G	95.00%	2.92	0.224	0	0	1	0	2	1,962.82	2468	2484	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	H	95.00%	5.59	0.495	0	0	1	0	2	3,230.52	1604	1635	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	4.98	0.405	0	0	0	1	2	4,169.94	1604	1643	TRUE	
SNU216LR_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	8	8	8	0.05%	4.58%	SGSLDSELSVSPKR	K	N	95.00%	2.88	0.356	0	1	0	0	2	1,541.72	2722	2735	TRUE	
SNU216LR_PC1_03	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.23	0.567	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC1_03	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	QSSPSGSEQLVR	R	R	95.00%	2.35	0.463	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC1_03	Isoform 1 of ADAM 9 precursor	IPI00440932,IPI00747759	90,556.10	99.10%	2	2	2	0.01%	2.08%	HVSPVTPPR	R	E	95.00%	1.5	0.482	0	1	0	0	2	1,069.52	756	764	TRUE	
SNU216LR_PC1_03	Isoform 1 of ADAM 9 precursor	IPI00440932,IPI00747759	90,556.10	99.10%	2	2	2	0.01%	2.08%	HVSPVTPPREVPIYANR	R	F	82.40%	2.02	0.193	0	0	1	0	2	2,012.01	756	772	TRUE	
SNU216LR_PC1_03	Isoform B of Eukaryotic translation initiation facto	IPI00479262	175,622.30	100.00%	3	4	5	0.03%	3.94%	EAALPPVSPLK	R	A	95.00%	2.46	0.244	0	2	0	0	2	1,201.62	1225	1235	TRUE	
SNU216LR_PC1_03	Isoform B of Eukaryotic translation initiation facto	IPI00479262	175,622.30	100.00%	3	4	5	0.03%	3.94%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	R	P	95.00%	4.3	0.387	0	0	1	0	2	3,174.59	306	333	TRUE	
SNU216LR_PC1_03	Isoform B of Eukaryotic translation initiation facto	IPI00479262	175,622.30	100.00%	3	4	5	0.03%	3.94%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	4.26	0.305	0	0	1	1	2	2,623.30	1073	1096	TRUE	
SNU216LR_PC1_03	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	99.90%	2	2	2	0.01%	5.51%	RQSSSYDDPWK	R	I	95.00%	2.98	0.31	0	1	0	0	2	1,448.58	218	228	TRUE	
SNU216LR_PC1_03	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	99.90%	2	2	2	0.01%	5.51%	TGSDHTNPTSPLLVKPSDLLEENKINSSVK	R	F	92.60%	5.29	0.0658	0	0	0	1	2	3,300.64	421	450	TRUE	
SNU216LR_PC1_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	99.80%	1	1	1	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.77	0.289	0	1	0	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC1_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	3	3	3	0.02%	3.96%	AQSPSYVISTGVSPSR	R	G	95.00%	2.84	0.418	0	1	0	0	2	1,715.80	219	234	TRUE	
SNU216LR_PC1_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	3	3	3	0.02%	3.96%	SAVSPDLHITPIYEGR	R	T	95.00%	3.21	0.447	0	1	0	0	2	1,834.87	403	418	TRUE	
SNU216LR_PC1_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	3	3	3	0.02%	3.96%	VASPSQGQVGSSSPKR	R	S	95.00%	2.67	0.248	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216LR_PC1_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	4	4	0.02%	8.78%	AAESETPGKSPEK	K	K	95.00%	2.7	0.46	0	1	1	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC1_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	4	4	0.02%	8.78%	ATNESEDEIPQLVPIGK	K	K	95.00%	2.29	0.208	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC1_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	4	4	0.02%	8.78%	KSPAKSPNPSTPR	K	G	95.00%	2.58	0.398	0	0	1	0	2	1,446.71	391	403	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	PREDICTED: mitogen-activated protein kinase kin	IPI00012318	185,158.40	99.80%	2	2	2	0.01%	1.71%	LSASSEDISER	K	L	95.00%	1.93	0.34	0	1	0	0	2	1,273.53	1106	1116	TRUE	
SNU216LR_PC1_03	PREDICTED: mitogen-activated protein kinase kin	IPI00012318	185,158.40	99.80%	2	2	2	0.01%	1.71%	RAPSPDGFSPYSPEETNR	R	R	95.00%	3.69	0.389	0	0	1	0	2	2,086.89	475	492	TRUE	
SNU216LR_PC1_03	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	99.80%	2	2	2	0.01%	4.23%	TDSQSVRHSPIAPSSPSPQVLAQK	R	Y	95.00%	3.39	0.393	0	0	1	0	2	2,597.27	298	321	TRUE	
SNU216LR_PC1_03	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	99.80%	2	2	2	0.01%	4.23%	TSSAVWNSPPLQGAR	R	V	95.00%	2.69	0.22	0	1	0	0	2	1,650.76	897	911	TRUE	
SNU216LR_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	3	4	4	0.02%	2.39%	DFDSSEDEKHSK	K	K	95.00%	1.94	0.4	0	1	1	0	2	1,583.53	778	789	TRUE	
SNU216LR_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	3	4	4	0.02%	2.39%	KKDELSDYAEK	K	S	95.00%	3	0.244	0	1	0	0	2	1,405.62	988	998	TRUE	
SNU216LR_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	3	4	4	0.02%	2.39%	YVESDDEKPLDDETVNEDASNENSENDITM	K	D	95.00%	5.49	0.431	0	0	1	0	2	4,050.68	89	123	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	DKASPEPEKDFSEK	K	A	95.00%	3.11	0.39	0	1	0	0	2	1,686.73	684	697	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	ELSESVQQQSTPVPLISPK	K	R	95.00%	3.24	0.495	0	1	0	0	2	2,147.06	550	568	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.71	0.391	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	RISLSDMPR	R	S	95.00%	2.27	0.345	0	1	0	0	2	1,154.54	442	450	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	SPMSTNSSVHTGSDVEQDAEK	R	K	95.00%	3.42	0.281	0	0	1	0	2	2,285.92	451	471	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.87	0.413	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	STSPASEKADPGAVK	K	D	84.00%	2.23	0.157	0	1	0	0	2	1,604.66	669	683	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	TGQAGSLSGSPKPFSPQLSAPITTK	K	T	86.20%	3.2	0.136	0	0	1	0	2	2,617.23	500	524	TRUE	
SNU216LR_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	9	9	9	0.06%	10.10%	TPPSTTVGSHSPPETPVLTR	K	S	92.40%	3.23	0.126	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216LR_PC1_03	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	99.80%	1	2	2	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	3.04	0.315	0	1	1	0	2	1,851.90	937	951	TRUE	
SNU216LR_PC1_03	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.61%	GRSPRSPSGHPHVR	R	R	95.00%	2.8	0.308	0	0	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC1_03	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.61%	IASDEEIQGTK	R	D	95.00%	1.81	0.286	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC1_03	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.61%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	2.94	0.46	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC1_03	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.61%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	3.85	0.478	0	0	1	0	2	2,474.40	632	654	TRUE	
SNU216LR_PC1_03	palladin	IPI00292009	122,047.90	100.00%	5	6	6	0.04%	5.61%	SRDSGDENEPIQER	R	F	95.00%	2.38	0.377	0	1	0	0	2	1,791.66	894	907	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	ADEGKKETSPESSLIQDEIAVK	K	L	95.00%	3.43	0.162	0	0	1	0	2	2,454.17	1147	1168	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	DGSPEAPASPEREEVALSEYK	K	T	95.00%	2.95	0.382	0	1	1	0	2	2,420.99	1345	1365	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	ESVHESIDTMSPMHK	R	N	95.00%	3.34	0.241	0	0	1	0	2	1,807.74	600	614	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	ETSPESSLIQDEIAVK	K	L	95.00%	3.59	0.475	0	0	1	0	2	1,825.85	1153	1168	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	GHDLSPLASDILTNTSGSMDEGDDYLPATTI	R	A	91.40%	5.27	0.0399	0	0	2	0	2	3,711.66	721	755	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	3.97	0.331	0	0	1	0	2	2,144.06	275	293	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	KETSPESSLIQDEIAVK	K	L	95.00%	2.98	0.157	0	1	0	0	2	1,953.94	1152	1168	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	RKSVPSETVVEDSR	R	T	95.00%	3.37	0.257	0	1	1	0	2	1,668.80	831	844	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	RPSPHDEEEFEVEEAAEAQAEPK	R	D	95.00%	6	0.489	0	0	1	0	2	2,704.14	1322	1344	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	SVPSETVVEDSR	K	T	95.00%	2.39	0.42	0	1	0	0	2	1,384.60	833	844	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	VDHGAEIITQSPGR	R	S	95.00%	3.41	0.423	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	14	15	0.09%	10.60%	YTVPLPSPVQDSENLSGESGTFYEGTDDKVF	K	R	95.00%	5.61	0.121	0	0	1	0	2	3,467.55	875	905	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	IPGGNIYISPLK	R	S	95.00%	2.28	0.401	0	1	0	0	2	1,351.70	799	810	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	IPGGNIYISPLKSPYK	R	I	95.00%	3.08	0.442	0	1	0	0	2	1,826.95	799	814	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	ISEGLPTPTKMTPR	K	S	95.00%	2.99	0.199	0	1	0	0	2	1,607.79	815	828	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	KSNLDEEVNVIPPHTPVR	R	T	95.00%	3.7	0.217	0	0	1	0	2	2,124.05	359	376	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	KTAATAAAAAAEPPAPPPPPPPEEDPEQDSG	R	L	95.00%	6.88	0.61	0	0	1	1	2	3,976.89	8	46	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	LFLDHDKTLQTDSIDSFETQRTPR	R	K	95.00%	4.6	0.19	0	0	0	1	2	2,943.39	335	358	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	LKTNILQYASTRPPTLSPIPHIPR	R	S	95.00%	2.8	0.337	0	0	0	1	2	2,793.52	764	787	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	TAATAAAAAAEPPAPPPPPPEEDPEQDSGI	K	L	95.00%	4	0.17	0	0	0	1	2	3,848.79	9	46	TRUE	
SNU216LR_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	9	10	10	0.06%	15.70%	TAVIPINGSPR	K	T	95.00%	2.27	0.237	0	1	0	0	2	1,204.61	241	251	TRUE	
SNU216LR_PC1_03	Dynein heavy chain, cytosolic	IPI00456969	532,405.60	100.00%	1	1	1	0.01%	0.34%	RKDSAIQQQVANLQMK	R	I	95.00%	4.02	0.265	0	0	1	0	2	1,937.96	1227	1242	TRUE	
SNU216LR_PC1_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	5	0.03%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	3.67	0.412	0	1	2	0	2	2,577.16	2398	2420	TRUE	
SNU216LR_PC1_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	5	0.03%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	3.7	0.371	0	2	0	0	2	1,834.79	2477	2491	TRUE	
SNU216LR_PC1_03	glutamyl-prolyl tRNA synthetase	IPI00013452	170,593.20	100.00%	2	2	2	0.01%	1.46%	EYIPGQPPLSQSSDSSPTR	K	N	83.60%	3.03	0.0528	0	1	0	0	2	2,205.91	871	889	TRUE	
SNU216LR_PC1_03	glutamyl-prolyl tRNA synthetase	IPI00013452	170,593.20	100.00%	2	2	2	0.01%	1.46%	TGKEYIPGQPPLSQSSDSSPTR	K	N	93.00%	3.74	0.0179	0	1	0	0	2	2,412.11	868	889	TRUE	
SNU216LR_PC1_03	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	100.00%	2	2	3	0.02%	1.94%	STELVLSPDMPR	R	T	95.00%	3.04	0.427	0	2	0	0	2	1,424.65	237	248	TRUE	
SNU216LR_PC1_03	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	100.00%	2	2	3	0.02%	1.94%	SVEHVSPDTADAESGKEIR	K	E	95.00%	4.08	0.317	0	0	1	0	2	2,106.93	261	279	TRUE	
SNU216LR_PC1_03	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	2	2	2	0.01%	3.21%	DVRNSDMHLLDLESMGK	K	S	95.00%	2.87	0.248	0	0	1	0	2	2,039.89	284	300	TRUE	
SNU216LR_PC1_03	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	2	2	2	0.01%	3.21%	EVLDEDTDEEKETLK	K	N	95.00%	3.12	0.277	0	1	0	0	2	1,872.80	918	932	TRUE	
SNU216LR_PC1_03	Septin-2	IPI00014177	41,488.20	99.80%	1	3	3	0.02%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	3.95	0.461	0	1	1	1	2	2,517.05	210	229	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	EKSESGGSEYGTGPGR	R	K	95.00%	2.61	0.4	0	1	0	0	2	1,757.64	131	146	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	ELQGDGPPSSPTNDPTVK	K	Y	95.00%	4.21	0.469	0	1	0	0	2	1,918.84	749	766	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	GGSYVFQSDEGPEPEAEESDLDSGSVHSAS	K	T	95.00%	5.34	0.173	0	0	1	1	2	3,983.68	351	388	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	KGGSYVFQSDEGPEPEAEESDLDSGSVHSA	K	T	93.30%	5.3	0.0553	0	0	0	1	2	4,111.78	350	388	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	KNDMDEPPPLDYGSGEDDGK	R	S	95.00%	4.94	0.413	0	1	1	0	2	2,258.88	629	648	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	METEADAPSPAPSLGER	K	L	95.00%	3.26	0.501	0	3	0	0	2	1,933.73	1638	1654	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	RDSEEEFGSERDEYR	K	E	95.00%	2.38	0.305	0	1	0	0	2	2,063.74	116	130	TRUE	
SNU216LR_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	10	12	0.07%	6.25%	SESGGSEYGTGPGR	K	K	95.00%	2.68	0.391	0	1	0	0	2	1,420.54	133	146	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	ASEAASPLPDSPGDK	K	L	95.00%	3.17	0.413	0	1	0	0	2	1,521.65	1144	1158	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	ASEAASPLPDSPGDKLVIVK	K	F	91.20%	3.14	0.141	0	0	1	0	2	2,074.05	1144	1163	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	FPGDQVVNGAGPELSTGPSPGSPTLDIDQS	R	L	95.00%	6.13	0.0812	0	0	1	0	2	3,772.77	669	704	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.81	0.238	0	1	0	0	2	1,852.82	646	663	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	KKSSSDPGIPGGPQAIPATNSPDHSDHTLSV	R	T	95.00%	5.5	0.425	0	0	0	1	2	4,320.98	359	401	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	4.8	0.446	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	LILELDPTFEPIPTHMNALGSQANGSVSPDS	R	A	95.00%	4.03	0.159	0	0	1	1	2	3,869.88	705	741	TRUE	
SNU216LR_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	8	11	11	0.07%	13.80%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.46	0.575	0	0	1	1	2	3,031.34	330	356	TRUE	
SNU216LR_PC1_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.02%	6.55%	ESSTSEGADQKMSSPEDDSDTKR	K	L	95.00%	3.14	0.246	0	0	0	1	2	2,567.01	371	393	TRUE	
SNU216LR_PC1_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.02%	6.55%	ILDILGETCKSEPVK	K	E	95.00%	2.55	0.189	0	1	0	0	2	1,861.84	217	231	TRUE	IPI00005648
SNU216LR_PC1_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.02%	6.55%	MSSPEDDSDTKR	K	L	95.00%	2.11	0.364	0	1	0	0	2	1,527.51	382	393	TRUE	
SNU216LR_PC1_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.02%	6.55%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.12	0.434	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	14.70%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.04	0.0647	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC1_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	14.70%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	5.35	0.312	0	0	0	1	2	4,229.03	209	247	TRUE	
SNU216LR_PC1_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	14.70%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	4.06	0.33	0	0	1	0	2	3,019.41	318	347	TRUE	
SNU216LR_PC1_03	Isoform 1 of Protein KIAA1718	REVERSE_IPI00418567-R	106,558.00	99.30%	1	1	1	0.01%	2.55%	DYRYLQRVEHNSGHCSSPDQLSNR	K	E	85.40%	2.95	0.225	0	0	1	0	2	3,158.23	156	179	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	DLEPGEVPSDSDEDGEHK	R	S	95.00%	2.86	0.397	0	1	0	0	2	2,034.78	1372	1389	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	ESGVVAVSPEKSESPQKEDGLSSQLK	R	S	95.00%	4.34	0.363	0	0	1	0	2	2,795.33	2113	2138	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	HGSFHEDEDPIGSPR	R	L	95.00%	3.53	0.316	0	0	2	0	2	1,759.71	1266	1280	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	LSPPVASGGIPHQSPPTK	K	V	95.00%	2.2	0.308	0	1	0	0	2	1,849.92	2480	2497	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	RPQSPGASPSQAER	R	L	95.00%	2.03	0.297	0	1	0	0	2	1,547.70	733	746	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	SDPVDPDKEPEKEDVSASGPSPEATQLAK	K	Q	95.00%	5.65	0.475	0	0	1	0	2	3,103.40	2139	2167	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	SESPQKEDGLSSQLK	K	S	95.00%	2.81	0.394	0	1	0	0	2	1,712.77	2124	2138	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	SLVHEVGKPPQDVTDDSPPSK	R	K	95.00%	3.22	0.277	0	0	1	0	2	2,312.08	1206	1226	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	SLVHEVGKPPQDVTDDSPPSKK	R	K	95.00%	3.27	0.253	0	0	1	0	2	2,440.18	1206	1227	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	SQSPVHLR	R	R	92.40%	1.91	0.189	0	1	0	0	2	1,003.47	725	732	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	SVYATMGDHENRSPVKEPVEQPR	R	V	95.00%	2.94	0.244	0	0	1	0	2	2,706.23	1906	1928	TRUE	
SNU216LR_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	12	12	13	0.08%	5.76%	VVAPVESHVPESNQAQGESPAANEGTTVQ	K	Q	95.00%	6.28	0.401	0	0	0	1	2	4,057.84	2348	2385	TRUE	
SNU216LR_PC1_03	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	GTDTQTPAVLSPSK	K	T	95.00%	2.17	0.364	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216LR_PC1_03	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	3.66	0.139	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216LR_PC1_03	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	4.14%	TNKSPEAKPLPGK	K	L	95.00%	2.9	0.375	0	0	1	0	2	1,446.74	64	76	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	9	11	0.07%	4.56%	EISDDEAEEEK	K	G	95.00%	2.81	0.322	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	9	11	0.07%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.2	0.391	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	9	11	0.07%	4.56%	EKEISDDEAEEEK	R	G	95.00%	3.12	0.462	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	9	11	0.07%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	4.12	0.417	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	9	11	0.07%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.84	0.41	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	9	11	0.07%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.41	0.426	0	2	0	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	9	11	0.07%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.37	0.348	0	2	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC1_03	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.40%	2	3	3	0.02%	3.70%	SSSPGKPQAVSSLNSSHSR	R	S	95.00%	4.8	0.486	0	1	1	0	2	1,992.91	178	196	TRUE	
SNU216LR_PC1_03	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.40%	2	3	3	0.02%	3.70%	VNPHKVSPASSVDSNIPSSQGYKK	K	E	88.90%	3.96	0.0863	0	0	1	0	2	2,606.26	481	504	TRUE	
SNU216LR_PC1_03	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	4	4	0.02%	4.41%	ASASRPQPAPADGADPPPAEEPEARPDGEC	R	A	95.00%	5.13	0.383	0	0	1	1	2	3,388.51	92	125	TRUE	
SNU216LR_PC1_03	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	4	4	0.02%	4.41%	HQDGLPYIDDSPSSSPHLSSK	R	G	95.00%	3.23	0.286	0	0	1	0	2	2,347.02	449	469	TRUE	
SNU216LR_PC1_03	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	4	4	0.02%	4.41%	RHQDGLPYIDDSPSSSPHLSSK	R	G	95.00%	3.63	0.33	0	0	0	1	2	2,503.13	448	469	TRUE	
SNU216LR_PC1_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	98.80%	1	1	1	0.01%	2.91%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.36	0.302	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216LR_PC1_03	Zinc finger protein 295	IPI00008137	118,871.60	99.80%	2	2	2	0.01%	2.53%	IKTEPSSPLSDPSDIIR	R	V	95.00%	3.09	0.211	0	0	1	0	2	1,934.95	429	445	TRUE	
SNU216LR_PC1_03	Zinc finger protein 295	IPI00008137	118,871.60	99.80%	2	2	2	0.01%	2.53%	SFSASQSTDR	R	E	95.00%	1.76	0.349	0	1	0	0	2	1,165.45	409	418	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.36	0.257	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.2	0.452	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4.89	0.275	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC1_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.04%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	8.74	0.647	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	5	5	6	0.04%	4.72%	GISPVVSEHR	K	K	95.00%	1.82	0.332	0	1	0	0	2	1,160.55	781	790	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	5	5	6	0.04%	4.72%	GISPVVSEHRK	K	Q	95.00%	2.77	0.418	0	0	1	0	2	1,288.64	781	791	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	5	5	6	0.04%	4.72%	MSSEGPPRMSPK	R	A	95.00%	2.45	0.422	0	1	0	0	2	1,383.58	614	625	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	5	5	6	0.04%	4.72%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	2.58	0.228	0	0	2	0	2	2,534.10	755	776	TRUE	
SNU216LR_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	5	5	6	0.04%	4.72%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.65	0.559	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216LR_PC1_03	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.88%	RVSGDAAQDLDR	R	G	95.00%	2.35	0.215	0	1	0	0	2	1,382.61	560	571	TRUE	
SNU216LR_PC1_03	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.88%	SSEGGVGVGPGGGDEPPTSPR	K	Q	95.00%	3.35	0.465	0	1	0	0	2	1,975.84	1187	1207	TRUE	
SNU216LR_PC1_03	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	100.00%	3	3	3	0.02%	3.88%	TASEGDGGAAAGAAAAGAR	R	P	95.00%	4.18	0.59	0	1	0	0	2	1,611.68	365	383	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain containing, family G,	IPI00291711	128,247.70	100.00%	2	2	3	0.02%	2.67%	SHSVPENMVEPPLSGR	R	V	95.00%	2.71	0.314	0	1	0	0	2	1,815.81	1023	1038	TRUE	
SNU216LR_PC1_03	pleckstrin homology domain containing, family G,	IPI00291711	128,247.70	100.00%	2	2	3	0.02%	2.67%	SPLSPTETFSWPDVR	R	E	94.90%	2.48	0.21	0	2	0	0	2	1,798.80	981	995	TRUE	
SNU216LR_PC1_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTK	R	R	95.00%	3.23	0.272	0	0	1	0	2	2,616.12	1181	1203	TRUE	
SNU216LR_PC1_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	5.94	0.431	0	0	1	1	2	2,772.23	1181	1204	TRUE	
SNU216LR_PC1_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	SSIHNFMTHPEFR	R	I	95.00%	2.73	0.268	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216LR_PC1_03	nucleoporin 160kDa	IPI00221235,IPI00748807	162,125.00	99.80%	1	2	2	0.01%	1.81%	LIRPEYAWIVQPVSGAVYDRPGASPK	R	R	95.00%	7.19	0.502	0	0	1	1	2	2,949.50	1134	1159	TRUE	
SNU216LR_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	ASALLFSSDEEDQWNIPASQTHLASDSR	K	S	95.00%	5.49	0.465	0	0	1	0	2	3,155.40	507	534	TRUE	
SNU216LR_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	AVASPEATVSQTDENK	K	A	95.00%	3.24	0.403	0	1	0	0	2	1,726.75	389	404	TRUE	
SNU216LR_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	ERRTPSDDEEDNLFAPPK	K	L	95.00%	2.9	0.385	0	0	1	0	2	2,275.93	222	239	TRUE	
SNU216LR_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	GLFSDEEDSEDLFSSQSASK	K	L	95.00%	4.7	0.591	0	1	0	0	2	2,257.90	430	449	TRUE	
SNU216LR_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.75%	TPSDDEEDNLFAPPK	R	L	95.00%	3	0.231	0	1	0	0	2	1,754.72	225	239	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	4	4	0.02%	3.97%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	4.35	0.441	0	1	1	0	2	2,778.05	587	608	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	4	4	0.02%	3.97%	IRQEDENFNSLLQNGDILNSSTEEK	K	F	95.00%	5.75	0.468	0	0	1	0	2	2,973.35	695	719	TRUE	
SNU216LR_PC1_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	4	4	0.02%	3.97%	STEDLSPQK	K	S	95.00%	1.88	0.323	0	1	0	0	2	1,084.46	852	860	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.04	0.323	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.8	0.395	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216LR_PC1_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	2.98	0.56	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	5	0.03%	4.31%	GLLYDSDEEDEERPAR	R	K	95.00%	2.78	0.263	0	0	1	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	5	0.03%	4.31%	GNDPLTSSPGR	R	S	95.00%	2.05	0.296	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	5	0.03%	4.31%	RGLLYDSDEEDEERPAR	R	K	95.00%	2.88	0.275	0	0	1	0	2	2,129.91	133	149	TRUE	
SNU216LR_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	5	0.03%	4.31%	RTDALTSSPGR	R	D	95.00%	2.94	0.4	0	1	1	0	2	1,240.57	34	44	TRUE	
SNU216LR_PC1_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	3	3	0.02%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	2.42	0.353	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC1_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	3	3	0.02%	16.10%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	8.21	0.563	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC1_03	Transient receptor potential cation channel subfa	IPI00290032	212,701.70	100.00%	3	4	4	0.02%	2.57%	HTEQSPTDAYGVINFQGGSHSYR	K	A	95.00%	4.58	0.443	0	0	1	0	2	2,631.13	83	105	TRUE	
SNU216LR_PC1_03	Transient receptor potential cation channel subfa	IPI00290032	212,701.70	100.00%	3	4	4	0.02%	2.57%	RPSTEDTHEVDSK	R	A	95.00%	2.96	0.455	0	1	1	0	2	1,580.66	1502	1514	TRUE	
SNU216LR_PC1_03	Transient receptor potential cation channel subfa	IPI00290032	212,701.70	100.00%	3	4	4	0.02%	2.57%	TLTAQKASEASK	K	V	83.30%	2	0.192	0	1	0	0	2	1,314.63	1248	1259	TRUE	
SNU216LR_PC1_03	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	4	6	6	0.04%	4.40%	DIEVLSEDTDYEEDEVTKK	K	R	95.00%	2.93	0.202	0	1	1	0	2	2,416.96	699	717	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	4	6	6	0.04%	4.40%	LSKPPFQTNPSPEMVSK	R	L	95.00%	3.47	0.0985	0	1	0	0	2	1,966.93	579	595	TRUE	
SNU216LR_PC1_03	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	4	6	6	0.04%	4.40%	RLSKPPFQTNPSPEMVSK	R	L	95.00%	3.82	0.312	0	0	1	0	2	2,123.04	578	595	TRUE	
SNU216LR_PC1_03	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	4	6	6	0.04%	4.40%	VHADLVISKPVSKSPER	K	L	95.00%	3.03	0.419	0	0	1	1	2	1,942.02	679	695	TRUE	
SNU216LR_PC1_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	3.43%	DSGSDTASAIIPSTTPSVDSDDESVVK	K	D	95.00%	4.21	0.305	0	0	1	0	2	2,760.20	183	209	TRUE	
SNU216LR_PC1_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	3.43%	GEIKDSSPSSSPSPK	K	G	95.00%	3.23	0.12	0	1	0	0	2	1,582.70	333	347	TRUE	
SNU216LR_PC1_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	3.43%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	91.70%	5.45	0.0344	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC1_03	Nuclear envelope pore membrane protein POM 1	IPI00032358,IPI00555819	125,061.70	99.30%	2	2	2	0.01%	3.42%	SSSMSSLTGAYTSGIPSSSR	R	N	86.60%	3.52	0.0119	0	1	0	0	2	2,122.84	368	387	TRUE	
SNU216LR_PC1_03	Nuclear envelope pore membrane protein POM 1	IPI00032358,IPI00555819	125,061.70	99.30%	2	2	2	0.01%	3.42%	VHHFYPSLPTPLLRPSGRPSPR	R	D	95.00%	3.24	0.368	0	0	0	1	2	2,591.34	171	192	TRUE	
SNU216LR_PC1_03	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	2	3	0.02%	5.69%	RPWRPEEAVEDPDEEDEDNTSEAENGFSLE	K	L	95.00%	3.56	0.271	0	0	1	0	2	4,068.73	14	47	TRUE	
SNU216LR_PC1_03	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	2	3	0.02%	5.69%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	4.72	0.531	0	0	2	0	2	3,148.14	621	646	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	DSSFTEVPRSPK	R	H	95.00%	3.27	0.438	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	EMEKSFDEQNVPK	R	R	95.00%	2.86	0.269	0	1	0	0	2	1,676.69	309	321	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	KGLASPTAITPVASAICGK	K	T	95.00%	2.74	0.361	0	1	0	0	2	1,921.98	795	813	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.45	0.386	0	1	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	SNEEEETSDSSLEK	R	Q	95.00%	2.87	0.271	0	1	0	0	2	1,663.62	56	69	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	SPSFGDPQLSPEAR	R	P	95.00%	2.87	0.207	0	2	0	0	2	1,567.68	261	274	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	SPSFGDPQLSPEARPR	R	C	95.00%	2.62	0.223	0	1	1	0	2	1,900.80	261	276	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	3.1	0.547	0	1	1	0	2	2,293.96	896	914	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	5.12	0.496	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216LR_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	13	14	0.09%	7.66%	YGSFEEAEASYPILNR	K	A	95.00%	3.77	0.261	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	4.42	0.465	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	4.35	0.443	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	VKVEPADSVESSPPSITHSPQNELK	K	G	92.70%	6	0.0189	0	0	1	0	2	2,755.32	408	432	TRUE	
SNU216LR_PC1_03	374 kDa protein	IPI00470478,IPI00642126	373,852.30	99.80%	1	1	1	0.01%	0.49%	DFATPSLHTSDQSPGK	R	H	95.00%	2.58	0.27	0	1	0	0	2	1,767.76	334	349	TRUE	
SNU216LR_PC1_03	Cleavage and polyadenylation specificity factor, 1	IPI00026219	160,885.90	100.00%	1	1	3	0.02%	2.70%	SGPEAEGLGSETSPTVDDEEEMLYGDSGSLF	R	R	95.00%	6.78	0.0443	0	0	3	0	2	4,169.75	725	763	TRUE	
SNU216LR_PC1_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	3	3	0.02%	3.33%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.14	0.402	0	0	1	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC1_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	3	3	0.02%	3.33%	SPQMVSAIVR	R	T	95.00%	2.12	0.264	0	1	0	0	2	1,167.56	191	200	TRUE	
SNU216LR_PC1_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	3	3	0.02%	3.33%	TSMGGTQQQFVEGVR	R	M	95.00%	3.46	0.504	0	1	0	0	2	1,704.74	551	565	TRUE	
SNU216LR_PC1_03	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.74	0.316	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC1_03	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	HLESSDEDEKMDEESAQIEEVLQR	K	G	95.00%	5.07	0.613	0	0	1	0	2	2,926.23	1792	1815	TRUE	
SNU216LR_PC1_03	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	SSLLPTDYLVEINK	R	I	95.00%	2.22	0.317	0	1	0	0	2	1,671.82	1865	1878	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	4.27	0.353	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	DNSPPPAFKPEPPK	R	A	95.00%	2.6	0.358	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	DSQQTLINIPSLNDSDSEIEDISEIESNR	R	S	95.00%	5.6	0.0779	0	0	1	0	2	3,341.49	384	412	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	ERPSSREDTPSR	K	L	95.00%	2.59	0.334	0	1	0	0	2	1,496.65	437	448	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	GRSIDQDYER	R	A	95.00%	2.58	0.325	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	GSYGSDAEEEEYR	R	Q	95.00%	2.73	0.547	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.1	0.375	0	1	0	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.19	0.509	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	SFSPEER	R	R	95.00%	1.26	0.333	1	0	0	0	2	1,011.32	413	419	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	SIDQDYER	R	A	89.90%	1.72	0.164	1	0	0	0	2	1,105.42	244	251	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	5.03	0.475	0	0	3	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	SRSWEDSPER	R	G	95.00%	2.32	0.251	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	15	18	0.11%	13.30%	VQVAALQASPPLDQDDR	K	A	95.00%	3.32	0.524	0	1	0	0	2	1,902.90	122	138	TRUE	
SNU216LR_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	6	0.04%	3.77%	FLMPEAYPSSPR	R	K	88.90%	1.95	0.201	0	1	0	0	2	1,474.64	153	164	TRUE	
SNU216LR_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	6	0.04%	3.77%	HSASPVVFTSAR	R	S	95.00%	2.58	0.318	0	2	0	0	2	1,418.59	1430	1441	TRUE	
SNU216LR_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	6	0.04%	3.77%	LIDLESPTPESQK	K	S	95.00%	2.82	0.345	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216LR_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	6	0.04%	3.77%	RLSPGSDIYVTVSSMALAR	R	S	95.00%	4.09	0.477	0	0	1	0	2	2,103.03	1125	1143	TRUE	
SNU216LR_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	5	5	6	0.04%	3.77%	TLSDESIYNSQR	R	E	95.00%	2.64	0.357	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216LR_PC1_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	98.70%	1	1	1	0.01%	3.22%	VALSDDETKETENMR	R	K	95.00%	2.62	0.359	0	1	0	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC1_03	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	4.01	0.523	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216LR_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	3	3	4	0.02%	2.33%	AQAVSEEEEEEEGK	K	S	95.00%	3.42	0.386	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216LR_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	3	3	4	0.02%	2.33%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	3.2	0.466	0	2	0	0	2	2,129.88	78	96	TRUE	
SNU216LR_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	3	3	4	0.02%	2.33%	KAQAVSEEEEEEEGK	R	S	95.00%	3.43	0.404	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216LR_PC1_03	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	4	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.33	0.641	0	0	1	0	2	3,332.21	541	570	TRUE	
SNU216LR_PC1_03	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	4	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	5.15	0.402	0	0	1	2	2	4,183.73	541	580	TRUE	
SNU216LR_PC1_03	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	99.80%	2	2	2	0.01%	2.18%	HSSPTEERDEPAYPR	R	G	95.00%	2.88	0.292	0	0	1	0	2	1,850.77	1200	1214	TRUE	
SNU216LR_PC1_03	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	99.80%	2	2	2	0.01%	2.18%	NLSDIGWPVFEIPSPRPSK	K	G	95.00%	2.57	0.235	0	0	1	0	2	2,219.09	418	436	TRUE	
SNU216LR_PC1_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	5	5	0.03%	4.30%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.72	0.472	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216LR_PC1_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	5	5	0.03%	4.30%	NDELLSDLTRTPPPPSSTFPK	R	A	90.30%	2.83	0.149	0	0	1	0	2	2,392.14	567	587	TRUE	
SNU216LR_PC1_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	5	5	0.03%	4.30%	SGAASMPSSPK	R	Q	95.00%	2.26	0.518	1	1	0	0	2	1,099.45	223	233	TRUE	
SNU216LR_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	5.97	0.519	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	2.88	0.199	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	2.89	0.231	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	12.80%	SPGAPGPLTLK	R	E	95.00%	1.93	0.391	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC1_03	Condensin complex subunit 1	IPI00299524	157,173.30	98.80%	1	1	1	0.01%	1.36%	YQPLASTASDNDFVTPEPR	R	R	95.00%	3.69	0.463	0	1	0	0	2	2,187.96	1325	1343	TRUE	
SNU216LR_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	AQSNGSGNGSDSEMDTSSLER	K	G	95.00%	3.85	0.484	0	1	0	0	2	2,208.83	1125	1145	TRUE	
SNU216LR_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	KVSIVSKPVLYR	R	T	95.00%	3	0.402	0	1	1	0	2	1,468.83	1148	1159	TRUE	
SNU216LR_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	NEEENIYSVPHDSTQGK	R	I	95.00%	3.81	0.47	0	1	0	0	2	2,026.84	1099	1115	TRUE	
SNU216LR_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	NQKNSLSDPNIDR	R	I	95.00%	2.9	0.138	0	1	0	0	2	1,580.71	585	597	TRUE	
SNU216LR_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	5	6	6	0.04%	5.15%	TSFSVGSDDELGPIR	R	K	95.00%	2.97	0.385	0	1	0	0	2	1,659.73	1173	1187	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC23074 isoform a	IPI00479669	164,202.30	99.80%	2	2	2	0.01%	2.53%	DHNVGSPPKSPTHASPQHTQTEK	K	D	95.00%	4.36	0.382	0	0	0	1	2	2,560.16	409	431	TRUE	
SNU216LR_PC1_03	hypothetical protein LOC23074 isoform a	IPI00479669	164,202.30	99.80%	2	2	2	0.01%	2.53%	SGSGEIGSETSDKK	K	D	95.00%	2.68	0.258	0	1	0	0	2	1,461.61	987	1000	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	DSKPIALKEEIVTPK	R	E	95.00%	2.82	0.406	0	0	1	0	2	1,747.92	502	516	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	ESKGSPVFLPR	K	K	95.00%	2.1	0.321	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	95.00%	3.55	0.202	0	0	2	0	2	2,545.18	1069	1093	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	4.42	0.506	0	0	3	0	2	2,811.39	664	689	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.6	0.35	0	0	2	0	2	2,380.14	381	401	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	81.20%	5.25	0.0186	0	0	1	0	2	2,673.28	1068	1093	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	LYNSEESRPYTNK	R	V	87.10%	2.67	0.128	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	NSSPAPPQPAPGK	K	V	95.00%	2.57	0.413	0	1	0	0	2	1,327.60	1081	1093	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	QDDSPSGASYGQDYDLSPSR	K	S	85.30%	3.49	0.0112	0	1	0	0	2	2,304.83	233	252	TRUE	
SNU216LR_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	11	16	0.10%	10.10%	RQSVSPPYKEPSAYQSSTR	R	S	95.00%	2.69	0.284	0	1	2	0	2	2,328.01	272	290	TRUE	
SNU216LR_PC1_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	2	3	0.02%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	2.69	0.403	0	2	0	0	2	1,593.72	221	235	TRUE	
SNU216LR_PC1_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	2	3	0.02%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.29	0.29	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC1_03	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	LKTEKEPDATPPSPR	K	T	95.00%	3.28	0.423	0	0	1	0	2	1,745.85	329	343	TRUE	
SNU216LR_PC1_03	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	NAPAAVDEGSISPR	R	T	95.00%	3.06	0.344	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216LR_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	7	0.04%	5.22%	AASSSSPGSPVASSPSR	R	L	95.00%	2.67	0.292	0	1	0	0	2	1,611.70	1776	1792	TRUE	
SNU216LR_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	7	0.04%	5.22%	ADAPDAGAQSDSELPSYHQNDVSLDR	R	G	95.00%	5.6	0.501	0	1	1	0	2	2,838.19	1289	1314	TRUE	
SNU216LR_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	7	0.04%	5.22%	GGQSDDDEDEGVPASYHTVSLQVSQDLLD	R	A	95.00%	6.14	0.277	0	0	0	1	2	4,145.84	1472	1508	TRUE	
SNU216LR_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	7	0.04%	5.22%	GYTSDSEVYTDHGR	R	P	95.00%	2.65	0.492	0	1	0	0	2	1,666.64	1315	1328	TRUE	
SNU216LR_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	7	0.04%	5.22%	GYTSDSEVYTDHGRPGK	R	I	85.90%	3.63	0	0	1	1	0	2	1,948.81	1315	1331	TRUE	
SNU216LR_PC1_03	Diacylglycerol O-acyltransferase 1	IPI00015799,IPI00735571,IP	55,280.00	100.00%	1	1	1	0.01%	4.30%	TGSRPSSHGGGGPAAAEEEVR	R	D	95.00%	3.14	0.29	0	0	1	0	2	2,088.91	12	32	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.90%	3	3	3	0.02%	2.77%	SDVSPIIQPVPSIK	K	N	95.00%	2.44	0.333	0	1	0	0	2	1,559.81	389	402	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.90%	3	3	3	0.02%	2.77%	SYSSPDITQAIQEEEK	R	R	89.00%	3.31	0.0407	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216LR_PC1_03	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.90%	3	3	3	0.02%	2.77%	SYSSPDITQAIQEEEKR	R	K	85.60%	3.57	0.004	0	1	0	0	2	2,060.92	716	732	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	5	0.03%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	5.33	0.425	0	0	1	1	2	3,369.45	35	69	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	5	0.03%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	7.46	0.496	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216LR_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	5	0.03%	5.61%	QTELFAHFIQPAAQKTPTSPLK	K	M	95.00%	4.01	0.248	0	0	1	0	2	2,613.25	98	119	TRUE	
SNU216LR_PC1_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	2	0.01%	2.00%	AKPAMPQDSVPSPR	K	S	95.00%	2.87	0.424	0	1	0	0	2	1,560.72	470	483	TRUE	
SNU216LR_PC1_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	2	0.01%	2.00%	TASFSESR	R	A	95.00%	1.64	0.371	0	1	0	0	2	964.3771	453	460	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC440193 isofo	IPI00737659,IPI00740019	228,234.70	99.90%	2	2	2	0.01%	1.68%	DYLQAQHPPSPIK	R	S	95.00%	2.66	0.234	0	1	0	0	2	1,573.74	218	230	TRUE	
SNU216LR_PC1_03	PREDICTED: hypothetical protein LOC440193 isofo	IPI00737659,IPI00740019	228,234.70	99.90%	2	2	2	0.01%	1.68%	NTSSNSSPLNLKGSSEQLHGR	R	S	95.00%	3.89	0.391	0	0	1	0	2	2,293.06	1578	1598	TRUE	
SNU216LR_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAK	K	P	95.00%	3.23	0.486	0	1	0	0	2	1,957.77	1937	1956	TRUE	
SNU216LR_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.43	0.484	0	2	2	0	2	2,254.90	1937	1959	TRUE	
SNU216LR_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	KGAGDGSDEEVDGK	R	A	95.00%	2.48	0.315	0	1	0	0	2	1,443.56	1936	1949	TRUE	
SNU216LR_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	3.84	0.531	0	1	1	0	2	2,085.86	1936	1956	TRUE	
SNU216LR_PC1_03	Protein DmX-like 1	IPI00294728	337,854.80	98.70%	1	1	1	0.01%	0.56%	WDSDNDEENEDVPISMK	K	E	95.00%	2.58	0.262	0	1	0	0	2	2,102.79	1968	1984	TRUE	
SNU216LR_PC1_03	Baculoviral IAP repeat-containing protein 6	IPI00299635	527,609.80	99.80%	1	2	2	0.01%	0.39%	LEGDSDDLLEDSDSEEHSR	K	S	95.00%	4.14	0.325	0	1	1	0	2	2,227.85	441	459	TRUE	
SNU216LR_PC1_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	7	7	0.04%	8.96%	AATEALGEKSPDSATVSGYDIMK	K	S	92.40%	4.15	0.0969	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216LR_PC1_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	7	7	0.04%	8.96%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	3.6	0.253	0	0	1	0	2	2,439.07	279	299	TRUE	
SNU216LR_PC1_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	7	7	0.04%	8.96%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	3.95	0.324	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216LR_PC1_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	7	7	0.04%	8.96%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	4.27	0.239	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216LR_PC1_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	7	7	0.04%	8.96%	MEVDRSPGLPMSDLK	R	T	95.00%	3.04	0.203	0	1	1	0	2	1,754.79	614	628	TRUE	
SNU216LR_PC1_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	7	7	0.04%	8.96%	SKSNPDFLKK	K	D	95.00%	2.7	0.196	0	0	1	0	2	1,243.61	991	1000	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	4.05	0.228	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	ARHDSPDPSPPR	R	R	95.00%	2.41	0.232	0	1	1	0	2	1,491.58	193	204	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	ARHDTPDPSPLR	R	G	95.00%	3.04	0.33	0	1	1	0	2	1,441.66	155	166	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.72	0.367	0	1	1	0	2	1,861.85	269	284	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	HDSPDPSPPR	R	R	95.00%	2.09	0.431	0	2	0	0	2	1,184.47	195	204	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	HDSPDPSPPRR	R	P	95.00%	2.52	0.419	0	1	1	0	2	1,420.54	195	205	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	HDTPDPSPLR	R	G	95.00%	2	0.224	0	1	0	0	2	1,214.52	157	166	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	HFRHDTPDSSPR	R	R	95.00%	2.5	0.254	0	0	1	0	2	1,531.64	118	129	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	NSKYEYDPDISPPR	K	K	95.00%	2.9	0.355	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216LR_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	10	14	15	0.10%	11.10%	YEYDPDISPPR	K	K	95.00%	2.08	0.289	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216LR_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	54,461.50	100.00%	4	7	7	0.04%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	94.30%	6.79	0.0072	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	54,461.50	100.00%	4	7	7	0.04%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	3.51	0.46	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	54,461.50	100.00%	4	7	7	0.04%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	4.46	0.481	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	54,461.50	100.00%	4	7	7	0.04%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.21	0.278	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	AEDGATPSPSNETPK	K	K	95.00%	3.65	0.415	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	AEDGATPSPSNETPKK	K	K	95.00%	3.15	0.319	0	2	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	AEDGATPSPSNETPKKK	K	K	95.00%	3.07	0.362	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	95.00%	5.59	0.0892	0	0	1	0	2	2,995.27	105	136	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	4.27	0.354	0	0	1	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.03	0.454	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	4.37	0.466	0	0	1	0	2	2,899.33	11	39	TRUE	
SNU216LR_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	8	10	11	0.07%	38.70%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.48	0.527	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC2_03	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.90%	2	2	2	0.01%	2.28%	DLDRPESQSPK	K	R	91.40%	2.08	0.192	0	1	0	0	2	1,351.59	170	180	TRUE	
SNU216LR_PC2_03	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.90%	2	2	2	0.01%	2.28%	RPGFSPTSHR	R	L	95.00%	2.07	0.263	0	0	1	0	2	1,221.55	908	917	TRUE	
SNU216LR_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	4	5	8	0.05%	5.22%	FEDEDSDDVPR	K	K	95.00%	1.98	0.271	0	1	0	0	2	1,403.50	698	708	TRUE	
SNU216LR_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	4	5	8	0.05%	5.22%	LGASNSPGQPNSVKR	K	K	95.00%	2.95	0.378	0	1	1	0	2	1,591.76	672	686	TRUE	
SNU216LR_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	4	5	8	0.05%	5.22%	QEPESEEEEEEKQEK	K	E	95.00%	3.07	0.267	0	1	0	0	2	1,956.76	579	593	TRUE	
SNU216LR_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	4	5	8	0.05%	5.22%	QEPESEEEEEEKQEKEEK	K	R	95.00%	3.63	0.461	0	0	4	0	2	2,342.94	579	596	TRUE	
SNU216LR_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	8	9	0.06%	7.47%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	3.96	0.305	0	0	1	0	2	2,434.09	531	554	TRUE	
SNU216LR_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	8	9	0.06%	7.47%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	4.86	0.384	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216LR_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	8	9	0.06%	7.47%	GPSPAPASSPKR	R	E	94.70%	2.51	0.169	0	1	0	0	2	1,231.58	717	728	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	8	9	0.06%	7.47%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.59	0.459	0	1	2	0	2	2,127.97	496	516	TRUE	
SNU216LR_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	8	9	0.06%	7.47%	QRSPSPAPAPAPAAAAGPPTRK	R	K	95.00%	3.93	0.16	0	0	1	0	2	2,256.07	496	517	TRUE	
SNU216LR_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	8	9	0.06%	7.47%	RRSASPPPATSSSSSSR	R	R	95.00%	4.11	0.368	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216LR_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	8	9	0.06%	7.47%	SASPPPATSSSSSSR	R	R	95.00%	2.25	0.32	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	8	0.05%	7.08%	DLPPFEDESEGLLGTEGPLEEEEDGEELIGDG	R	D	95.00%	4.69	0.464	0	0	1	0	2	3,912.64	45	79	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	8	0.05%	7.08%	GLLYDSDEEDEERPAR	R	K	95.00%	3.47	0.396	0	2	2	0	2	1,973.81	134	149	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	8	0.05%	7.08%	GLLYDSDEEDEERPARK	R	R	94.70%	2.56	0.166	0	1	0	0	2	2,101.91	134	150	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	8	0.05%	7.08%	RGLLYDSDEEDEERPAR	R	K	95.00%	3.04	0.145	0	1	0	0	2	2,129.91	133	149	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	6	8	0.05%	7.08%	RTDALTSSPGR	R	D	95.00%	3.04	0.326	0	0	1	0	2	1,240.57	34	44	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	AEGEPQEESPLKSK	K	S	95.00%	3.27	0.433	0	1	0	0	2	1,608.72	169	182	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	AEGEWEDQEALDYFSDKESGK	K	Q	95.00%	4.49	0.406	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	DTFEHDPSESIDEFNK	K	S	95.00%	2.89	0.301	0	1	0	0	2	1,989.78	189	204	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	ETQSPEQVKSEK	K	L	95.00%	3.24	0.434	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.47	0.588	0	3	0	0	2	2,081.65	394	409	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	5.1	0.488	0	1	2	1	2	2,726.13	369	391	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	KAEGEPQEESPLK	K	S	95.00%	2.96	0.169	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	KAEGEPQEESPLKSK	K	S	95.00%	4.54	0.53	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	KETQSPEQVKSEK	K	L	95.00%	2.45	0.21	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	LKDLFDYSPPLHK	K	N	95.00%	2.74	0.196	0	2	1	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	NTPSQHSHSIQHSPER	K	S	95.00%	2.82	0.316	0	1	3	1	2	2,001.80	256	271	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.9	0.5	0	2	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.9	0.254	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.73	0.409	0	1	1	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	YSPSQNSPIHHIPSR	R	R	95.00%	2.95	0.235	0	0	1	0	2	1,799.82	284	298	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	16	26	33	0.21%	17.00%	YSPSQNSPIHHIPSRR	R	S	95.00%	2.63	0.211	0	1	0	1	2	1,955.92	284	299	TRUE	
SNU216LR_PC2_03	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.03%	5.28%	GLVAAYSGDSDNEEELVER	R	L	95.00%	4.8	0.534	0	2	0	0	2	2,132.90	615	633	TRUE	
SNU216LR_PC2_03	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.03%	5.28%	SEDGYHSDGDYGEHDYR	R	H	95.00%	3.23	0.29	0	0	1	0	2	2,081.71	72	88	TRUE	
SNU216LR_PC2_03	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	4	0.03%	5.28%	SEDGYHSDGDYGEHDYRHDISDER	R	E	95.00%	3.81	0.343	0	0	0	1	2	2,934.09	72	95	TRUE	
SNU216LR_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	14.90%	ETSVSKEDTDHEEK	K	A	95.00%	3.12	0.366	0	1	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	14.90%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.52	0.343	0	0	1	0	2	2,558.08	114	135	TRUE	
SNU216LR_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	14.90%	QSNASSDVEVEEK	K	E	95.00%	2.45	0.239	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216LR_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	14.90%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	89.10%	3.74	0.214	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	14.90%	QVETEEAGVVTTATASVNLKVSPK	K	R	95.00%	6.09	0.128	0	0	1	0	2	2,538.27	156	179	TRUE	
SNU216LR_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	14.90%	TGVTSTSDSEEEGDDQEGEK	K	K	94.40%	4.01	0.0141	0	1	0	0	2	2,259.77	267	286	TRUE	
SNU216LR_PC2_03	DNA topoisomerase 1	IPI00413611	90,729.70	100.00%	1	1	1	0.01%	3.40%	EKENGFSSPPQIKDEPEDDGYFVPPK	K	E	95.00%	3.55	0.198	0	0	1	0	2	3,029.35	105	130	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	ASVLDTSMSAGSGSPSK	R	T	95.00%	3.45	0.334	0	1	0	0	2	1,661.71	498	514	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	SPEPEATLTFPFLDK	K	M	95.00%	3.88	0.467	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	100.00%	3	3	3	0.02%	2.52%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	4.37	0.479	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216LR_PC2_03	Zinc finger protein 592	IPI00022460	137,553.70	99.80%	2	2	2	0.01%	4.50%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	5.06	0.448	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216LR_PC2_03	Zinc finger protein 592	IPI00022460	137,553.70	99.80%	2	2	2	0.01%	4.50%	RLLGPAPEDDGGHNDHSQPQASQDQDSH	R	-	95.00%	5.16	0.374	0	0	0	1	2	3,713.62	1234	1267	TRUE	
SNU216LR_PC2_03	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	RKTPEASAIGLHQDPELGDAALR	R	S	95.00%	5.81	0.457	0	0	0	1	2	2,525.25	729	751	TRUE	
SNU216LR_PC2_03	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	SLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	3.97	0.461	0	0	1	0	2	2,577.24	647	671	TRUE	
SNU216LR_PC2_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYK	R	R	95.00%	3.05	0.335	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216LR_PC2_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	2.59	0.199	0	0	1	0	2	1,563.74	384	396	TRUE	
SNU216LR_PC2_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	SFAGNLNTYKR	R	L	95.00%	2.33	0.266	0	1	0	0	2	1,350.62	386	396	TRUE	
SNU216LR_PC2_03	CDNA FLJ43547 fis, clone PROST2016462	IPI00398170,IPI00645265	61,733.00	99.80%	2	2	2	0.01%	3.83%	SIHKSSQDGDTPAQASPPEEK	R	V	95.00%	3.16	0.31	0	0	1	0	2	2,289.00	110	130	TRUE	
SNU216LR_PC2_03	CDNA FLJ43547 fis, clone PROST2016462	IPI00398170,IPI00645265	61,733.00	99.80%	2	2	2	0.01%	3.83%	SSQDGDTPAQASPPEEK	K	V	95.00%	3.14	0.245	0	1	0	0	2	1,823.73	114	130	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	AESGDSLGSEDRDLLYSIDAYR	R	S	95.00%	3.06	0.399	0	0	1	0	2	2,512.09	656	677	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	4.63	0.402	0	0	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	ATSPVKSTTSITDAK	K	S	95.00%	3.07	0.47	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	DKSTTPGGTGIKPFLER	K	F	95.00%	2.98	0.308	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	KNKASPQSEFMPSK	K	G	95.00%	3.32	0.299	0	0	1	0	2	1,658.76	788	801	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	NKASPQSEFMPSK	K	G	95.00%	3.26	0.359	0	1	0	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	QPLSEASNQQPLSGGEEK	R	S	95.00%	2.94	0.193	0	1	0	0	2	1,978.88	42	59	TRUE	
SNU216LR_PC2_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	8	8	8	0.05%	8.63%	TQSLPVTEK	K	V	87.40%	1.96	0.178	0	1	0	0	2	1,082.51	483	491	TRUE	
SNU216LR_PC2_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	2	3	3	0.02%	4.39%	AGGLDWPEATEVSPSR	R	T	95.00%	3.21	0.377	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC2_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	2	3	3	0.02%	4.39%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.6	0.408	0	1	1	0	2	2,142.05	308	326	TRUE	
SNU216LR_PC2_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	4	0.03%	7.71%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	6.31	0.516	0	0	1	1	2	3,538.48	736	766	TRUE	
SNU216LR_PC2_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	4	0.03%	7.71%	SHILEDDENSVDISMLK	R	T	95.00%	4.44	0.458	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216LR_PC2_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	4	0.03%	7.71%	TGSSLLKEEEEDGQEGSIHNLPLVTSQRPFYI	K	Q	95.00%	3.8	0.177	0	0	0	1	2	4,392.05	268	306	TRUE	
SNU216LR_PC2_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.03%	4.12%	KTESPIKLSPATPSR	K	K	95.00%	2.99	0.294	0	1	1	0	2	1,691.87	660	674	TRUE	
SNU216LR_PC2_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.03%	4.12%	SPPLPAVIR	R	N	95.00%	1.67	0.429	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216LR_PC2_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.03%	4.12%	SVAVSDEEEVEEEAER	R	R	95.00%	3.47	0.311	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216LR_PC2_03	Zinc finger protein 217	IPI00025310	115,272.80	99.80%	2	2	2	0.01%	3.34%	AGAESPTMSVDGR	R	Q	95.00%	2.7	0.466	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216LR_PC2_03	Zinc finger protein 217	IPI00025310	115,272.80	99.80%	2	2	2	0.01%	3.34%	TKADVTPPPDGSTTHNLEVSPK	R	E	95.00%	4.7	0.408	0	0	1	0	2	2,371.12	643	664	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	99.80%	2	3	3	0.02%	14.40%	LKEDILENEDEQNSPPK	R	K	95.00%	3.77	0.177	0	1	1	0	2	2,077.93	40	56	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	99.80%	2	3	3	0.02%	14.40%	RLKEDILENEDEQNSPPK	K	K	95.00%	3.85	0.305	0	0	1	0	2	2,234.03	39	56	TRUE	
SNU216LR_PC2_03	Centaurin-beta 2	IPI00014264	88,030.10	100.00%	2	2	2	0.01%	2.06%	KSSPSTGSLDSGNESK	K	E	95.00%	4.97	0.0861	0	1	0	0	2	1,660.71	377	392	TRUE	
SNU216LR_PC2_03	Centaurin-beta 2	IPI00014264	88,030.10	100.00%	2	2	2	0.01%	2.06%	SSPSTGSLDSGNESK	K	E	95.00%	2.71	0.176	0	1	0	0	2	1,532.61	378	392	TRUE	
SNU216LR_PC2_03	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	2	2	0.01%	4.65%	NVDSLSAPHNHPPEDPFGSVPFISHSGSPEI	K	K	95.00%	5.99	0.274	0	0	0	1	2	3,362.51	662	692	TRUE	
SNU216LR_PC2_03	Isoform 1 of BMP-2-inducible protein kinase	IPI00337426	129,170.70	99.80%	2	2	2	0.01%	4.65%	SESNEDLFGLVPFDEITGSQQQK	K	V	95.00%	3.56	0.512	0	1	0	0	2	2,648.18	947	969	TRUE	
SNU216LR_PC2_03	Importin beta-3	IPI00329200	126,524.70	100.00%	1	2	2	0.01%	3.47%	TASIKPEVALLDTQDMENMSDDDGWEFVN	K	T	95.00%	5.33	0.526	0	0	1	1	2	4,423.96	651	689	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.93	0.457	0	0	1	1	2	3,599.65	366	400	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	4.94	0.256	0	0	1	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.52	0.262	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC2_03	Centromere protein C 1	IPI00304885	106,928.30	100.00%	3	3	3	0.02%	5.09%	ILATDVSSKNTPDSKK	K	I	95.00%	3	0.187	0	0	1	0	2	1,783.88	120	135	TRUE	
SNU216LR_PC2_03	Centromere protein C 1	IPI00304885	106,928.30	100.00%	3	3	3	0.02%	5.09%	NDVDDEEVHGSSDDSKQSK	K	V	95.00%	2.61	0.448	0	1	0	0	2	2,330.77	699	717	TRUE	
SNU216LR_PC2_03	Centromere protein C 1	IPI00304885	106,928.30	100.00%	3	3	3	0.02%	5.09%	SEESPVYSNSSVR	K	N	95.00%	2.67	0.348	0	1	0	0	2	1,520.63	535	547	TRUE	
SNU216LR_PC2_03	CTP synthase	IPI00290142	66,690.70	99.80%	1	1	1	0.01%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	95.00%	4.51	0.0652	0	1	0	0	2	2,327.01	571	591	TRUE	
SNU216LR_PC2_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	3	3	0.02%	9.33%	GDRSPEPGQTWTR	K	E	81.90%	2.79	0.183	0	0	1	0	2	1,566.67	91	103	TRUE	
SNU216LR_PC2_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	3	3	0.02%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.81	0.339	0	1	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC2_03	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	1	1	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	5.66	0.45	0	0	1	0	2	3,106.31	797	824	TRUE	
SNU216LR_PC2_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.20%	2	2	2	0.01%	2.65%	ASNTSTPTKGNTETSASASQTNHVK	K	D	84.60%	5.46	0.0238	0	0	1	0	2	2,599.16	489	513	TRUE	
SNU216LR_PC2_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.20%	2	2	2	0.01%	2.65%	GGDVSPSPYSSSSWR	R	R	95.00%	2.97	0.277	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	4	4	0.03%	9.45%	GLNTSQESDDDILDESSSPEGTQK	R	V	95.00%	3.3	0.296	0	0	1	0	2	2,632.08	223	246	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	4	4	0.03%	9.45%	HQSFGAAVLSR	R	E	95.00%	2.16	0.257	0	1	0	0	2	1,252.58	105	115	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	4	4	0.03%	9.45%	LQALAEEPSQPHTRSPAK	K	N	95.00%	2.69	0.215	0	0	1	0	2	2,039.99	177	194	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	4	4	4	0.03%	9.45%	SSSVPHPFQVTLLR	R	N	95.00%	2.75	0.37	0	0	1	0	2	1,647.83	576	589	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to rho guanine nucleotide exc	IPI00738223	128,198.80	99.80%	1	1	1	0.01%	1.19%	LESLSETPGPSSPR	R	Q	95.00%	2.88	0.186	0	1	0	0	2	1,536.69	1115	1128	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	99.80%	2	2	2	0.01%	3.52%	QNSSSSDSGGSIVR	R	D	95.00%	3.5	0.522	0	1	0	0	2	1,460.60	659	672	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	99.80%	2	2	2	0.01%	3.52%	RKSQMEEVQDELIHR	R	L	95.00%	2.48	0.245	0	0	0	1	2	1,977.92	685	699	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	6.87%	SPPYTAFLGNLPYDVTEESIKEFFR	K	G	95.00%	5.02	0.34	0	0	1	0	2	3,000.41	93	117	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	6.87%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.89	0.546	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC2_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.91	0.196	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC2_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	RGSIGENQIK	K	D	95.00%	2.73	0.167	0	1	0	0	2	1,181.57	194	203	TRUE	
SNU216LR_PC2_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.09	0.285	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC2_03	Plastin-2	IPI00010471	70,160.90	99.70%	2	2	2	0.01%	3.51%	EGESLEDLMK	R	L	93.40%	1.85	0.238	0	1	0	0	2	1,230.50	253	262	TRUE	
SNU216LR_PC2_03	Plastin-2	IPI00010471	70,160.90	99.70%	2	2	2	0.01%	3.51%	GSVSDEEMMELR	R	E	95.00%	2.32	0.404	0	1	0	0	2	1,462.56	3	14	TRUE	
SNU216LR_PC2_03	Isoform B of AP-2 complex subunit alpha-1	IPI00256684,IPI00304577	107,557.70	100.00%	1	1	1	0.01%	3.35%	RDPSSNDINGGMEPTPSTVSTPSPSADLLGI	R	A	95.00%	6.4	0.0721	0	0	1	0	2	3,348.54	633	664	TRUE	
SNU216LR_PC2_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	5	6	0.04%	7.29%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	4.54	0.498	0	1	2	0	2	3,169.31	651	677	TRUE	
SNU216LR_PC2_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	5	6	0.04%	7.29%	DGTSPEEEIEIER	K	Q	95.00%	2.4	0.434	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216LR_PC2_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	5	6	0.04%	7.29%	IDSNISPK	K	K	80.20%	1.63	0.153	1	0	0	0	2	953.4341	148	155	TRUE	
SNU216LR_PC2_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	4	5	6	0.04%	7.29%	TLDSGTSEIVKSPR	R	I	95.00%	3.15	0.352	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	10	11	0.07%	5.15%	DKEVSDDEAEEKEDK	R	E	95.00%	3.88	0.4	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	10	11	0.07%	5.15%	EEKESEDKPEIEDVGSDEEEEK	K	K	95.00%	5.19	0.46	0	1	1	0	2	2,659.07	370	391	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	10	11	0.07%	5.15%	ERDKEVSDDEAEEK	K	E	95.00%	3.82	0.343	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	10	11	0.07%	5.15%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	3.85	0.42	0	2	1	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	10	11	0.07%	5.15%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.88	0.419	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	10	11	0.07%	5.15%	EVSDDEAEEKEDKEEEK	K	E	95.00%	3.74	0.393	0	0	1	0	2	2,117.83	351	367	TRUE	
SNU216LR_PC2_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.64	0.313	0	2	2	0	2	1,673.69	221	235	TRUE	
SNU216LR_PC2_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.24	0.244	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	4	4	0.03%	4.62%	KTVEDEDQDSEEEKDNDSYIK	K	E	95.00%	4.91	0.5	0	0	1	0	2	2,596.05	405	425	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	4	4	0.03%	4.62%	NINMDNDLEVLTSSPTR	K	N	95.00%	4.68	0.46	0	1	0	0	2	1,998.88	538	554	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	4	4	0.03%	4.62%	TVEDEDQDSEEEKDNDSYIK	K	E	95.00%	4.05	0.436	0	1	1	0	2	2,467.95	406	425	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	108,385.20	100.00%	5	6	6	0.04%	8.02%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	2.6	0.252	0	1	1	0	2	2,279.98	678	697	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	108,385.20	100.00%	5	6	6	0.04%	8.02%	GLAGPPASPGK	K	A	95.00%	2.22	0.418	0	1	0	0	2	1,031.49	549	559	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	108,385.20	100.00%	5	6	6	0.04%	8.02%	GSPSGGSTAEASDTLSIR	R	S	95.00%	2.87	0.366	0	1	0	0	2	1,772.77	414	431	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	108,385.20	100.00%	5	6	6	0.04%	8.02%	KLQLERPVSPETQADLQR	R	N	95.00%	3	0.352	0	0	1	0	2	2,188.11	932	949	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	108,385.20	100.00%	5	6	6	0.04%	8.02%	KPSVGVPPPASPYSPR	K	A	95.00%	3.66	0.41	0	0	1	0	2	1,715.85	980	995	TRUE	
SNU216LR_PC2_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.80%	2	2	2	0.01%	2.83%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	3.36	0.464	0	1	0	0	2	2,075.92	342	359	TRUE	
SNU216LR_PC2_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.80%	2	2	2	0.01%	2.83%	TLTDEVNSPDSDRR	K	D	95.00%	2.71	0.231	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	3	4	4	0.03%	4.47%	EQPEMEDANSEK	R	S	95.00%	2.85	0.402	0	1	0	0	2	1,486.54	11	22	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	3	4	4	0.03%	4.47%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.16	0.477	0	0	1	0	2	3,454.32	11	39	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	3	4	4	0.03%	4.47%	EVIDASDKEGMSPAKR	K	T	95.00%	3.76	0.245	0	1	1	0	2	1,812.82	82	97	TRUE	
SNU216LR_PC2_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	99.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	79.70%	5.89	0.0011	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216LR_PC2_03	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	99.80%	2	2	2	0.01%	5.94%	DTDSDREAGTETGGENNDKEEEEK	K	K	95.00%	4.56	0.582	0	0	1	0	2	2,735.04	338	361	TRUE	
SNU216LR_PC2_03	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	99.80%	2	2	2	0.01%	5.94%	ESSIIAPAPAEDVDTPPR	K	K	95.00%	3.91	0.415	0	0	1	0	2	1,944.90	434	451	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC55215	IPI00019447,IPI00477345	102,390.30	99.80%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	2.26	0.361	0	1	0	0	2	1,170.54	41	50	TRUE	
SNU216LR_PC2_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.03%	8.88%	DYDEEEQGYDSEKEK	R	K	95.00%	3.4	0.294	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC2_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.03%	8.88%	DYDEEEQGYDSEKEKK	R	E	95.00%	2.58	0.257	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216LR_PC2_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.03%	8.88%	SKTPPKSYSTAR	R	R	95.00%	2.18	0.4	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216LR_PC2_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	4	4	4	0.03%	8.88%	VNGDDHHEEDMDMSD	K	-	95.00%	2.28	0.483	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216LR_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	99.80%	2	3	3	0.02%	5.22%	QRSPIALPVKQEPPQIDAVK	R	R	95.00%	4.64	0.446	0	0	1	0	2	2,294.23	209	228	TRUE	
SNU216LR_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	99.80%	2	3	3	0.02%	5.22%	SKFDSDEEEEDTENVEAASSGK	K	V	95.00%	6.88	0.584	0	1	1	0	2	2,482.96	286	307	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	3	3	0.02%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	3.61	0.475	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	3	3	0.02%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	3.15	0.388	0	1	1	0	2	1,915.77	775	790	TRUE	
SNU216LR_PC2_03	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	1	2	3	0.02%	3.39%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	4.9	0.128	0	1	2	0	2	2,929.08	432	455	TRUE	
SNU216LR_PC2_03	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.60%	2	2	2	0.01%	8.96%	IAAPELHKGDSDSEEDEPTK	K	K	92.80%	2.75	0.129	0	1	0	0	2	2,327.93	147	166	TRUE	
SNU216LR_PC2_03	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.60%	2	2	2	0.01%	8.96%	QITQEEDDSDEEVAPENFFSLPEK	K	A	95.00%	3.6	0.397	0	0	1	0	2	2,876.20	259	282	TRUE	
SNU216LR_PC2_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	99.60%	1	1	1	0.01%	1.55%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.58	0.323	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216LR_PC2_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	4	4	0.03%	6.80%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	4.54	0.351	0	0	1	1	2	3,188.48	642	669	TRUE	
SNU216LR_PC2_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	4	4	0.03%	6.80%	RSDSASSEPVGIYQGFEK	R	K	95.00%	3.83	0.337	0	0	1	0	2	2,036.90	301	318	TRUE	
SNU216LR_PC2_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	4	4	0.03%	6.80%	SDSASSEPVGIYQGFEK	R	K	95.00%	3.13	0.416	0	1	0	0	2	1,880.80	302	318	TRUE	
SNU216LR_PC2_03	Isoform 1 of Probable nucleolar complex protein	IPI00022613,IPI00743803	91,388.00	99.90%	1	1	1	0.01%	1.52%	FGEYNSNMSPEEK	R	M	90.30%	2.02	0.21	0	1	0	0	2	1,611.60	88	100	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bromodomain-containing protein 3	IPI00014266	79,542.50	99.80%	2	2	2	0.01%	3.17%	QASASYDSEEEEEGLPMSYDEK	K	R	95.00%	2.85	0.394	0	1	0	0	2	2,573.98	556	577	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bromodomain-containing protein 3	IPI00014266	79,542.50	99.80%	2	2	2	0.01%	3.17%	QASASYDSEEEEEGLPMSYDEKR	K	Q	95.00%	4.22	0.328	0	0	1	0	2	2,730.08	556	578	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	5.31%	LPEASQSPLVLK	R	Q	95.00%	2.86	0.321	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216LR_PC2_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	5.31%	SNMSPHGLPAR	R	S	95.00%	2.58	0.257	0	0	1	0	2	1,246.54	446	456	TRUE	
SNU216LR_PC2_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	3	3	3	0.02%	5.31%	VAPVINNGSPTILGK	K	R	95.00%	2.42	0.368	0	1	0	0	2	1,559.82	568	582	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	3	4	6	0.04%	10.00%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.7	0.538	0	0	3	1	2	3,586.35	473	502	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	3	4	6	0.04%	10.00%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	5.27	0.506	0	1	0	0	2	2,869.29	503	526	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	3	4	6	0.04%	10.00%	VAQGATEKSPEDKVQIAANEETQER	K	E	95.00%	4.1	0.371	0	0	1	0	2	2,808.31	443	467	TRUE	
SNU216LR_PC2_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	99.90%	2	3	3	0.02%	2.54%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.16	0.58	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216LR_PC2_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	99.90%	2	3	3	0.02%	2.54%	SSLSGDEEDELFK	R	G	94.40%	2.36	0.178	0	1	0	0	2	1,535.62	1279	1291	TRUE	
SNU216LR_PC2_03	Metastasis-associated protein MTA2	IPI00171798	75,025.10	99.80%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	95.00%	4.11	0.107	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216LR_PC2_03	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	1	1	1	0.01%	1.03%	APLKPYPVSPSDK	K	V	95.00%	3.18	0.453	0	1	0	0	2	1,478.73	1043	1055	TRUE	
SNU216LR_PC2_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	7	7	0.04%	7.40%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.46	0.311	0	1	1	0	2	1,852.82	646	663	TRUE	
SNU216LR_PC2_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	7	7	0.04%	7.40%	KKSSSDPGIPGGPQAIPATNSPDHSDHTLSV	R	T	95.00%	5.8	0.468	0	0	0	1	2	4,320.98	359	401	TRUE	
SNU216LR_PC2_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	7	7	0.04%	7.40%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	4.53	0.454	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216LR_PC2_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	7	7	0.04%	7.40%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	4.89	0.44	0	1	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC2_03	Methionyl-tRNA synthetase	IPI00008240	101,117.50	100.00%	1	1	1	0.01%	3.11%	TSPKPAVVETVTTAKPQQIQALMDEVTK	K	Q	95.00%	5.02	0.488	0	0	0	1	2	3,090.58	824	851	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.80%	2	2	2	0.01%	1.21%	AVIVSSPK	K	A	95.00%	1.97	0.252	0	1	0	0	2	880.454	1396	1403	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.80%	2	2	2	0.01%	1.21%	HLEAADKGHSPAQKPK	K	T	95.00%	2.92	0.307	0	0	0	1	2	1,793.87	596	611	TRUE	
SNU216LR_PC2_03	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	99.80%	1	1	2	0.01%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.12	0.309	0	2	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC2_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	99.90%	2	2	2	0.01%	2.97%	AQPFGFIDSDTDAEEERIPATPVVIPMK	R	K	95.00%	3.35	0.243	0	0	1	0	2	3,153.49	321	348	TRUE	
SNU216LR_PC2_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	99.90%	2	2	2	0.01%	2.97%	GPGAPGLAHLQESQAGSDTDVEEGKAPQA	R	S	95.00%	3.07	0.212	0	0	0	1	2	3,463.64	360	393	TRUE	
SNU216LR_PC2_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	2	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.21	0.486	0	0	2	0	2	2,205.10	225	244	TRUE	
SNU216LR_PC2_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	99.50%	2	2	2	0.01%	7.27%	DFQEYVEPGEDFPASPQRR	R	N	89.50%	3.08	0.131	0	0	1	0	2	2,347.00	193	211	TRUE	
SNU216LR_PC2_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	99.50%	2	2	2	0.01%	7.27%	KPVTVSPTTPTSPTEGEAS	R	-	95.00%	2.73	0.23	0	1	0	0	2	1,965.91	505	523	TRUE	
SNU216LR_PC2_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.87%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	95.00%	3.69	0.14	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216LR_PC2_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.87%	TSPINEDIR	K	S	90.50%	1.81	0.24	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216LR_PC2_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.87%	VASDTEEADR	K	T	95.00%	2.22	0.431	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216LR_PC2_03	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	99.80%	2	2	2	0.01%	1.84%	ALVVPEPEPDSDSNQER	K	K	95.00%	3.52	0.475	0	1	0	0	2	1,961.85	126	142	TRUE	
SNU216LR_PC2_03	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	99.80%	2	2	2	0.01%	1.84%	KALVVPEPEPDSDSNQER	K	K	95.00%	3.17	0.25	0	0	1	0	2	2,089.94	125	142	TRUE	
SNU216LR_PC2_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	2	2	2	0.01%	5.39%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	3.57	0.238	0	0	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC2_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	2	2	2	0.01%	5.39%	SRSRDDLYDQDDSR	R	D	95.00%	2.54	0.204	0	0	1	0	2	1,807.72	509	522	TRUE	
SNU216LR_PC2_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	7.13%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	3.23	0.311	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC2_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	7.13%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.37	0.417	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC2_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	7.13%	SSPQLDPLR	R	K	95.00%	2.19	0.336	0	0	1	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC2_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	7.13%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	4.07	0.297	0	0	0	1	2	3,571.71	182	214	TRUE	
SNU216LR_PC2_03	Poly [ADP-ribose] polymerase 1	IPI00449049	112,956.60	100.00%	1	1	1	0.01%	1.68%	GGSDDSSKDPIDVNYEK	R	L	95.00%	3.18	0.3	0	1	0	0	2	1,905.78	779	795	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	HASPDKWNDKPK	K	N	90.20%	2.42	0.174	0	0	1	0	2	1,502.68	85	96	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	KPGPPLSPEIR	R	S	95.00%	3	0.469	0	1	1	0	2	1,270.66	421	431	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	KPGPPLSPEIRSPAGSPELR	R	K	83.50%	2.52	0.191	0	0	1	0	2	2,325.04	421	440	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	KPGPSGPSESPK	R	A	95.00%	2.31	0.194	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.32	0.318	0	0	2	0	2	1,890.91	441	456	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.2	0.382	0	0	3	1	2	2,526.21	280	301	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	KTAPTLSPEHWK	R	A	95.00%	2.33	0.186	0	1	0	0	2	1,474.71	399	410	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	KTSPASLDFPESQK	R	S	95.00%	3.49	0.481	0	1	1	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.39	0.471	0	1	2	0	2	2,314.11	199	219	TRUE	
SNU216LR_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	10	14	18	0.12%	15.70%	TAPTLSPEHWK	K	A	95.00%	2.33	0.317	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC2_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	2	2	0.01%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.54	0.43	0	1	0	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC2_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	2	2	0.01%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.06	0.2	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216LR_PC2_03	CDNA FLJ90551 fis, clone OVARC1000779, weakly	IPI00181556,IPI00401752	59,154.20	99.80%	2	2	2	0.01%	3.23%	PKSPSSGSGGGGPKPYK	R	C	95.00%	3.69	0.364	0	0	1	0	2	1,667.78	308	324	TRUE	
SNU216LR_PC2_03	CDNA FLJ90551 fis, clone OVARC1000779, weakly	IPI00181556,IPI00401752	59,154.20	99.80%	2	2	2	0.01%	3.23%	SPSSGSGGGGPKPYK	K	C	95.00%	2.39	0.359	0	1	0	0	2	1,442.63	310	324	TRUE	
SNU216LR_PC2_03	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	5	10	0.06%	11.60%	AAPEASSPPASPLQHLLPGK	K	A	95.00%	3.22	0.345	0	2	2	0	2	2,127.99	686	705	TRUE	
SNU216LR_PC2_03	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	5	10	0.06%	11.60%	GLLAQGLRPESPPPAGPLLNGAPAGESPQPI	R	A	95.00%	6.15	0.53	0	0	3	1	2	3,176.55	655	685	TRUE	
SNU216LR_PC2_03	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	5	10	0.06%	11.60%	QVVSVVQDEEVGLPFEASPESPPPASPDGV	K	G	95.00%	6.24	0.575	0	0	2	0	2	3,641.73	621	654	TRUE	
SNU216LR_PC2_03	CLN3 protein	IPI00010906	19,287.30	99.80%	2	2	2	0.01%	8.84%	RFSDSEGEETVPEPR	R	L	95.00%	2.91	0.208	0	1	0	0	2	1,814.76	10	24	TRUE	
SNU216LR_PC2_03	CLN3 protein	IPI00010906	19,287.30	99.80%	2	2	2	0.01%	8.84%	RRFSDSEGEETVPEPR	R	L	95.00%	3.63	0.398	0	0	1	0	2	1,970.86	9	24	TRUE	
SNU216LR_PC2_03	palladin	IPI00292009	122,047.90	100.00%	5	8	8	0.05%	5.61%	GRSPRSPSGHPHVR	R	R	95.00%	3.27	0.379	0	1	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC2_03	palladin	IPI00292009	122,047.90	100.00%	5	8	8	0.05%	5.61%	IASDEEIQGTK	R	D	95.00%	2.06	0.384	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC2_03	palladin	IPI00292009	122,047.90	100.00%	5	8	8	0.05%	5.61%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	3.5	0.364	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC2_03	palladin	IPI00292009	122,047.90	100.00%	5	8	8	0.05%	5.61%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	3.02	0.446	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC2_03	palladin	IPI00292009	122,047.90	100.00%	5	8	8	0.05%	5.61%	SRDSGDENEPIQER	R	F	95.00%	3.24	0.331	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	5.35	0.157	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	AVAEEDNGSIGEETDSSPGR	K	K	95.00%	4.35	0.322	0	1	0	0	2	2,099.84	652	671	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	AVAEEDNGSIGEETDSSPGRK	K	K	86.10%	3.89	0.0041	0	1	0	0	2	2,227.94	652	672	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	DLTHSDSESSLHMSDR	K	Q	95.00%	2.9	0.164	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	KAVAEEDNGSIGEETDSSPGR	K	K	95.00%	3.79	0.285	0	0	1	0	2	2,227.94	651	671	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	4.71	0.438	0	0	1	1	2	2,350.24	559	580	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	LPDSPALAK	K	K	94.30%	1.83	0.259	0	1	0	0	2	991.4862	572	580	TRUE	
SNU216LR_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	8	10	10	0.06%	14.90%	SHSPSSPDPDTPSPVGDSR	R	A	80.40%	3.47	0.0067	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216LR_PC2_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	3	3	0.02%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.47	0.308	0	1	1	0	2	2,020.82	45	61	TRUE	
SNU216LR_PC2_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	3	3	0.02%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	4.48	0.54	0	0	0	1	2	2,176.93	44	61	TRUE	
SNU216LR_PC2_03	Isoform 4 of E3 ubiquitin-protein ligase NEDD4-li	IPI00023287,IPI00163321,IP	111,935.10	100.00%	3	3	3	0.02%	6.32%	AVKDTLSNPQSPQPSPYNSPKPQHK	R	V	95.00%	3.33	0.303	0	0	0	1	2	2,825.36	469	493	TRUE	
SNU216LR_PC2_03	Isoform 4 of E3 ubiquitin-protein ligase NEDD4-li	IPI00023287,IPI00163321,IP	111,935.10	100.00%	3	3	3	0.02%	6.32%	SLSSPTVTLSAPLEGAK	R	D	93.80%	3.53	0.0531	0	1	0	0	2	1,737.87	446	462	TRUE	
SNU216LR_PC2_03	Isoform 4 of E3 ubiquitin-protein ligase NEDD4-li	IPI00023287,IPI00163321,IP	111,935.10	100.00%	3	3	3	0.02%	6.32%	TSPQELSEELSR	R	R	95.00%	2.82	0.531	0	1	0	0	2	1,455.64	302	313	TRUE	
SNU216LR_PC2_03	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.80%	1	2	2	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	3.17	0.433	0	1	1	0	2	1,498.67	12	23	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.35	0.226	0	0	0	1	2	2,929.37	1015	1043	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	2.78	0.32	0	1	1	0	2	2,090.97	1023	1043	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	NRSAEEGELAESK	R	S	95.00%	2.83	0.231	0	0	1	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	4.36	0.478	0	0	1	0	2	2,302.99	891	911	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	6.98	0.447	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	SAEEGELAESK	R	S	95.00%	2.17	0.377	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	4.69	0.494	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	VPSSDEEVVEEPQSR	R	R	95.00%	3.91	0.413	0	2	1	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	12	13	0.08%	6.42%	VSGAGFSPSSK	R	M	95.00%	1.93	0.314	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	99.80%	2	3	3	0.02%	7.75%	FMEQSRSPSVSPSK	K	Q	95.00%	2.83	0.309	0	1	0	0	2	1,646.72	219	232	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	99.80%	2	3	3	0.02%	7.75%	SAYQEYDSDSDVPEELKR	K	D	95.00%	3.69	0.331	0	1	1	0	2	2,210.91	283	300	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	4	4	0.03%	5.55%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	4.41	0.299	0	0	1	1	2	2,851.43	615	639	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	4	4	0.03%	5.55%	RASQEANLLTLAQK	R	A	95.00%	3.06	0.285	0	0	1	0	2	1,622.83	459	472	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	4	4	0.03%	5.55%	SHESNAPGSAGGQASEKPR	R	E	95.00%	4.17	0.493	0	0	1	0	2	1,946.84	988	1006	TRUE	
SNU216LR_PC2_03	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	2.88	0.262	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216LR_PC2_03	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	6.29	0.534	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	99.80%	2	2	2	0.01%	2.15%	AASPPASASDLIEQQQK	R	R	95.00%	3.38	0.378	0	1	0	0	2	1,820.84	333	349	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	99.80%	2	2	2	0.01%	2.15%	AASPPASASDLIEQQQKR	R	G	95.00%	4.06	0.405	0	0	1	0	2	1,976.94	333	350	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.44	0.324	0	0	2	0	2	2,429.15	976	997	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	DNSPPPAFKPEPPK	R	A	95.00%	2.41	0.387	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	DSQQTLINIPSLNDSDSEIEDISEIESNR	R	S	95.00%	4.21	0.392	0	0	1	0	2	3,341.49	384	412	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	ERPSSREDTPSR	K	L	95.00%	2.6	0.372	0	2	1	0	2	1,496.65	437	448	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	GSYGSDAEEEEYR	R	Q	95.00%	2.74	0.449	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.76	0.351	0	1	0	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.02	0.448	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	RHQYSDYDYHSSSEK	R	L	95.00%	4.63	0.384	0	0	1	0	2	1,981.77	420	434	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	RHQYSDYDYHSSSEKLK	R	E	95.00%	2.91	0.245	0	0	1	0	2	2,302.92	420	436	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	SFSPEER	R	R	95.00%	1.87	0.317	0	1	0	0	2	931.3557	413	419	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	4.21	0.445	0	0	2	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	SRSWEDSPER	R	G	95.00%	2.59	0.234	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	SSEPVQHEESIRKPSPEPR	R	A	95.00%	2.71	0.215	0	0	1	0	2	2,269.06	952	970	TRUE	
SNU216LR_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	17	21	0.13%	15.50%	VQVAALQASPPLDQDDR	K	A	95.00%	3.69	0.464	0	1	0	0	2	1,902.90	122	138	TRUE	
SNU216LR_PC2_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	5	5	0.03%	5.78%	GGSISVQVNSIKFDSE	R	-	95.00%	3.14	0.254	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216LR_PC2_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	5	5	0.03%	5.78%	VADNSFDAK	R	R	86.90%	1.59	0.258	0	1	0	0	2	1,046.42	649	657	TRUE	
SNU216LR_PC2_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	5	5	0.03%	5.78%	VADNSFDAKR	R	G	95.00%	2.06	0.42	0	1	0	0	2	1,202.52	649	658	TRUE	
SNU216LR_PC2_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	5	5	0.03%	5.78%	VAGGAAPSKPASAKK	K	G	95.00%	2.68	0.264	0	1	1	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	10	0.06%	7.98%	AAGARPLTSPESLSR	K	D	95.00%	2.93	0.413	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	10	0.06%	7.98%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	93.80%	5.15	0.0584	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	10	0.06%	7.98%	ASPEPQRENASPAGTTAEEAMSR	R	G	95.00%	4.13	0.429	0	0	2	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	10	0.06%	7.98%	ENASPAPGTTAEEAMSR	R	G	95.00%	2.94	0.335	0	1	1	0	2	1,798.73	964	980	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	10	0.06%	7.98%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.65	0.357	0	0	1	2	2	3,192.48	936	963	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	10	0.06%	7.98%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.4	0.309	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216LR_PC2_03	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	99.80%	2	2	2	0.01%	6.44%	ARSMDSSDLSDGAVTLQEYLELKK	R	A	95.00%	5.63	0.54	0	0	1	0	2	2,736.28	408	431	TRUE	
SNU216LR_PC2_03	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	99.80%	2	2	2	0.01%	6.44%	HGSGADSDYENTQSGDPLLGLEGKR	R	F	95.00%	3.95	0.394	0	0	1	0	2	2,683.16	590	614	TRUE	
SNU216LR_PC2_03	CDA02	IPI00012462	67,852.50	100.00%	2	3	3	0.02%	3.94%	NSSSTE	W	F	95.00%	0.595	1	1	0	0	0	0	864.146	306	311	TRUE	
SNU216LR_PC2_03	CDA02	IPI00012462	67,852.50	100.00%	2	3	3	0.02%	3.94%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.61	0.394	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216LR_PC2_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	98.60%	1	1	1	0.01%	9.17%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	2.89	0.173	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC2_03	Glutaminyl-tRNA synthetase	IPI00026665	87,799.90	100.00%	1	1	1	0.01%	1.55%	RLSFLVSYIASK	R	K	95.00%	2.74	0.282	0	1	0	0	2	1,463.77	68	79	TRUE	
SNU216LR_PC2_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	10.80%	ALASEKSPTADAKPAPK	K	R	95.00%	2.77	0.28	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC2_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	10.80%	IPSKEEEADMSSPTQR	K	T	95.00%	3.61	0.33	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC2_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	10.80%	LEAEEGRNSLSPVQATQKPLVSK	R	K	95.00%	3.52	0.208	0	0	1	0	2	2,641.26	127	149	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase BAP1	IPI00465087	80,362.70	99.30%	2	2	2	0.01%	6.31%	SASNKSPLVLEANR	K	A	85.20%	2.37	0.141	0	1	0	0	2	1,565.77	287	300	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase BAP1	IPI00465087	80,362.70	99.30%	2	2	2	0.01%	6.31%	VPVRPPQQYSDDEDDYEDDEEDDVQNTN	R	Y	95.00%	6.05	0.532	0	0	1	0	2	3,833.56	386	417	TRUE	
SNU216LR_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	13	0.08%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	4.3	0.408	0	0	4	0	2	3,291.30	348	375	TRUE	
SNU216LR_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	13	0.08%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHKR	K	T	95.00%	5.32	0.456	0	0	1	2	2	3,431.41	348	376	TRUE	
SNU216LR_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	13	0.08%	12.40%	MLAESDESGDEESVSQTDK	K	T	95.00%	3.47	0.434	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216LR_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	13	0.08%	12.40%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.99	0.433	0	0	3	0	2	3,172.29	186	212	TRUE	
SNU216LR_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	13	0.08%	12.40%	SLSELESLKLPAESNEK	R	I	95.00%	3.3	0.472	0	1	0	0	2	1,953.94	238	254	TRUE	
SNU216LR_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	13	0.08%	12.40%	TGSNISGASSDISLDEQYKHQLEETKK	R	E	95.00%	4.02	0.147	0	0	0	1	2	3,045.41	377	403	TRUE	
SNU216LR_PC2_03	Polycomb protein SUZ12	IPI00299526	83,055.20	99.80%	1	1	1	0.01%	2.44%	ASMSEFLESEDGEVEQQR	K	T	95.00%	3.12	0.25	0	1	0	0	2	2,150.86	538	555	TRUE	
SNU216LR_PC2_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	5	12	0.08%	3.54%	SPSPEPIYNSEGKR	R	L	84.60%	2.02	0.195	0	1	0	0	2	1,720.70	204	217	TRUE	
SNU216LR_PC2_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	5	12	0.08%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.79	0.308	0	1	3	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC2_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	5	12	0.08%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.98	0.385	0	0	4	3	2	3,082.36	191	217	TRUE	
SNU216LR_PC2_03	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	3	4	4	0.03%	3.21%	DVRNSDMHLLDLESMGK	K	S	95.00%	3.32	0.162	0	0	1	0	2	2,039.89	284	300	TRUE	
SNU216LR_PC2_03	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	3	4	4	0.03%	3.21%	EVLDEDTDEEKETLK	K	N	95.00%	3.82	0.359	0	1	1	0	2	1,872.80	918	932	TRUE	
SNU216LR_PC2_03	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	100.00%	3	4	4	0.03%	3.21%	NSDMHLLDLESMGK	R	S	95.00%	2.44	0.279	0	1	0	0	2	1,669.70	287	300	TRUE	
SNU216LR_PC2_03	132 kDa protein	IPI00002054	131,684.30	99.80%	2	2	2	0.01%	3.42%	KAVVLPGGTATSPK	R	M	95.00%	2.94	0.398	0	1	0	0	2	1,405.75	443	456	TRUE	
SNU216LR_PC2_03	132 kDa protein	IPI00002054	131,684.30	99.80%	2	2	2	0.01%	3.42%	TPLDLFAHFGPEPGDHSDPLPPSAPSPTR	K	E	95.00%	4.17	0.255	0	0	0	1	2	3,132.45	179	207	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	AALAPAKESPR	R	K	95.00%	2.23	0.305	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	KLGAGEGGEASVSPEK	K	T	95.00%	3.35	0.348	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	KSAEPSANTTLVSETEEEGSVPAFGAAAK	K	P	95.00%	4.36	0.247	0	0	1	0	2	2,958.36	159	187	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	SAEPSANTTLVSETEEEGSVPAFGAAAK	K	P	95.00%	4.96	0.0748	0	0	1	0	2	2,830.27	160	187	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	SLGNILQAKPTSSPAK	K	G	95.00%	3.17	0.47	0	1	1	0	2	1,691.87	494	509	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	3.74	0.396	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	TSQVGAASAPAKESPR	K	K	95.00%	3.63	0.493	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	TSQVGAASAPAKESPRK	K	G	95.00%	3.33	0.41	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	11	11	0.07%	7.51%	TVANLLSGKSPR	K	K	95.00%	3.18	0.314	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC2_03	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	2	2	3	0.02%	5.51%	RQSSSYDDPWK	R	I	95.00%	2.55	0.173	0	1	0	0	2	1,448.58	218	228	TRUE	
SNU216LR_PC2_03	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	2	2	3	0.02%	5.51%	TGSDHTNPTSPLLVKPSDLLEENKINSSVK	R	F	95.00%	6.13	0.0507	0	0	0	2	2	3,300.64	421	450	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	5.89	0.582	0	0	1	1	2	3,065.37	341	365	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.5	0.564	0	1	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	HVIADQEVMETNRVESVEPSENEASK	K	E	95.00%	3.93	0.253	0	0	1	0	2	3,007.34	398	423	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	QESDPEDDDVK	R	K	95.00%	3.77	0.571	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.68	0.531	0	1	1	1	2	2,653.22	98	121	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	3.85	0.408	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	SLSPGKENVSALDMEK	K	E	95.00%	3.39	0.524	0	2	2	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	8	14	16	0.10%	16.70%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	4.26	0.427	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216LR_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	4	5	5	0.03%	9.84%	ENHGQADHSPSMTATHFPR	R	V	95.00%	3.65	0.337	0	0	1	1	2	2,199.90	254	272	TRUE	
SNU216LR_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	4	5	5	0.03%	9.84%	NSGSSQGLGGSPGSHSHTTMANK	K	V	95.00%	4.22	0.139	0	0	1	0	2	2,278.95	165	187	TRUE	
SNU216LR_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	4	5	5	0.03%	9.84%	SPPETAAPVEDMAR	R	R	95.00%	2.37	0.277	0	1	0	0	2	1,550.66	550	563	TRUE	
SNU216LR_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	4	5	5	0.03%	9.84%	TESEVPPRPASPK	R	V	95.00%	2.89	0.396	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216LR_PC2_03	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	3	3	0.02%	2.40%	DTPRPDHPPHDGHSPASR	R	E	95.00%	3.03	0.353	0	0	1	1	2	2,055.88	1197	1214	TRUE	
SNU216LR_PC2_03	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	3	3	0.02%	2.40%	SSSLDGEHHDGYHR	R	D	95.00%	2.85	0.318	0	0	0	1	2	1,676.65	1277	1290	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	4	6	7	0.04%	8.56%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.98	0.429	0	0	1	1	2	2,516.14	103	124	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	4	6	7	0.04%	8.56%	GSFGAMDDPFK	R	N	95.00%	2.17	0.3	0	1	0	0	2	1,251.48	592	602	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	4	6	7	0.04%	8.56%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	4.47	0.12	0	1	2	0	2	2,009.92	238	257	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	4	6	7	0.04%	8.56%	TVFPGAVPVLPASPPPKDSLR	K	S	95.00%	3.79	0.315	0	0	1	0	2	2,225.17	217	237	TRUE	
SNU216LR_PC2_03	Ubiquitin-like PHD and RING finger domain-conta	IPI00066641,IPI00645728	81,988.60	99.80%	1	2	2	0.01%	2.02%	IERPGEGSPMVDNPMR	K	R	95.00%	3.62	0.409	0	1	1	0	2	1,864.81	293	308	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	7	0.04%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	5.66	0.355	0	0	1	1	2	2,877.32	600	626	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	7	0.04%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	4.59	0.484	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	7	0.04%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	5.59	0.617	0	0	2	0	2	3,452.30	627	658	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	7	0.04%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	6.63	0.495	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216LR_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	9	0.06%	9.60%	HYEDGYPGGSDNYGSLSR	R	V	95.00%	2.88	0.34	0	1	0	0	2	2,053.79	162	179	TRUE	
SNU216LR_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	9	0.06%	9.60%	LRSYEDMIGEEVPSDQYYWAPLAQHER	R	G	95.00%	6.22	0.527	0	0	1	1	2	3,362.48	264	290	TRUE	
SNU216LR_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	9	0.06%	9.60%	SGDLGDMEPLK	R	G	95.00%	2.55	0.356	0	1	0	0	2	1,241.51	860	870	TRUE	
SNU216LR_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	9	0.06%	9.60%	SGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.58	0.443	0	0	1	0	2	2,097.96	860	878	TRUE	
SNU216LR_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	9	0.06%	9.60%	SQSSHSYDDSTLPLIDR	R	N	85.40%	3.3	0.0381	0	1	0	0	2	2,000.86	799	815	TRUE	
SNU216LR_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	9	0.06%	9.60%	TLDRSGDLGDMEPLK	R	G	95.00%	2.49	0.205	0	1	0	0	2	1,726.77	856	870	TRUE	
SNU216LR_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	9	0.06%	9.60%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.37	0.39	0	0	2	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.11	0.563	0	1	1	0	2	2,433.86	225	246	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	K	95.00%	5.05	0.517	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	E	95.00%	5.15	0.482	0	0	0	1	2	3,659.47	225	257	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.84	0.564	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	KLSVPTSDEEDEVPAPK	K	P	95.00%	3.1	0.32	0	1	0	0	2	1,920.88	104	120	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	5	0.449	0	4	3	1	2	2,174.04	104	122	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.39	0.463	0	2	2	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	13	20	0.13%	8.63%	QQPPEPEWIGDGESTSPSDK	K	V	95.00%	3.22	0.331	0	1	0	0	2	2,263.94	7	26	TRUE	
SNU216LR_PC2_03	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	NSLTGEEGQLAR	R	V	95.00%	2.01	0.353	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216LR_PC2_03	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	RNSLTGEEGQLAR	R	V	95.00%	2.65	0.196	0	1	0	0	2	1,510.70	110	122	TRUE	
SNU216LR_PC2_03	Isoform 4 of Aftiphilin	IPI00329005,IPI00429547,IP	102,201.30	99.80%	2	2	2	0.01%	4.70%	KPLSTHSTEYNLDSVPSPAEEFADFATFSK	R	K	95.00%	5.65	0.405	0	0	1	0	2	3,395.54	210	239	TRUE	
SNU216LR_PC2_03	Isoform 4 of Aftiphilin	IPI00329005,IPI00429547,IP	102,201.30	99.80%	2	2	2	0.01%	4.70%	TSDDEVGSPKEESR	K	K	95.00%	2.81	0.232	0	1	0	0	2	1,615.65	375	388	TRUE	
SNU216LR_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	5	6	6	0.04%	6.14%	AKNWEDEDFYDSDDDTFLDR	K	T	95.00%	3.67	0.475	0	0	1	0	2	2,575.98	455	474	TRUE	
SNU216LR_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	5	6	6	0.04%	6.14%	KMLGEDSDEEEEMDTSER	K	K	95.00%	4.81	0.62	0	1	1	0	2	2,209.82	306	323	TRUE	
SNU216LR_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	5	6	6	0.04%	6.14%	KPALPVSPAAR	K	S	95.00%	2.2	0.343	0	1	0	0	2	1,186.63	76	86	TRUE	
SNU216LR_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	5	6	6	0.04%	6.14%	MLGEDSDEEEEMDTSER	K	K	95.00%	3.45	0.402	0	1	0	0	2	2,081.72	307	323	TRUE	
SNU216LR_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	5	6	6	0.04%	6.14%	NWEDEDFYDSDDDTFLDR	K	T	95.00%	4.04	0.434	0	1	0	0	2	2,376.85	457	474	TRUE	
SNU216LR_PC2_03	FCH domain only 2	IPI00472794	89,293.90	99.80%	2	2	2	0.01%	7.00%	GPSPVSLGNQDTLPVAVALTESVNAYFK	R	G	95.00%	4.96	0.465	0	0	1	0	2	2,954.45	535	562	TRUE	
SNU216LR_PC2_03	FCH domain only 2	IPI00472794	89,293.90	99.80%	2	2	2	0.01%	7.00%	LSGINEIPRPFSPPVTSNTSPPPAAPLAR	K	A	95.00%	4.91	0.073	0	0	1	0	2	3,063.57	481	509	TRUE	
SNU216LR_PC2_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	3	3	3	0.02%	2.64%	SAVSPDLHITPIYEGR	R	T	88.70%	2.2	0.202	0	1	0	0	2	1,834.87	403	418	TRUE	
SNU216LR_PC2_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	3	3	3	0.02%	2.64%	VASPSQGQVGSSSPK	R	R	95.00%	2.88	0.309	0	1	0	0	2	1,495.68	325	339	TRUE	
SNU216LR_PC2_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	100.00%	3	3	3	0.02%	2.64%	VASPSQGQVGSSSPKR	R	S	95.00%	3.64	0.247	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216LR_PC2_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	99.80%	2	2	2	0.01%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.79	0.577	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC2_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	99.80%	2	2	2	0.01%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.48	0.345	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216LR_PC2_03	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	3.40%	RSSDPVPGPPADTQPSASHPGGQSLK	R	L	95.00%	4.87	0.469	0	0	1	0	2	2,650.23	139	164	TRUE	
SNU216LR_PC2_03	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	3.40%	SSSLESLQTAVAEVR	K	K	95.00%	2.86	0.419	0	1	0	0	2	1,656.78	744	758	TRUE	
SNU216LR_PC2_03	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	99.50%	1	1	1	0.01%	1.58%	ATPPPSPLLSELLKK	K	G	95.00%	3.13	0.389	0	0	1	0	2	1,750.88	263	277	TRUE	
SNU216LR_PC2_03	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.00%	1	2	2	0.01%	1.67%	EKPDSDDDLDIASLVTAK	R	L	95.00%	2.94	0.329	0	1	1	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC2_03	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	DVHAASSPGMGGAAASWAGWAVTGVSSI	K	L	95.00%	4.64	0.493	0	0	1	0	2	2,996.36	553	583	TRUE	
SNU216LR_PC2_03	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	PSTQPRPDSWGEDNWEGLETDSR	R	Q	95.00%	4.94	0.464	0	1	1	0	2	2,739.13	746	768	TRUE	
SNU216LR_PC2_03	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	9.64%	GSDALSETSSVSHIEDLEK	R	V	95.00%	3.72	0.335	0	1	1	0	2	2,083.91	713	731	TRUE	
SNU216LR_PC2_03	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	9.64%	GVPHPEDDHSQVEGPESLR	K	-	91.10%	2.47	0.2	0	0	1	0	2	2,164.93	770	788	TRUE	
SNU216LR_PC2_03	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	9.64%	LSSGPEQITLEASSTEGHPGAPSPQHTDQTE	R	G	95.00%	6.67	0.296	0	0	1	1	2	3,742.69	735	769	TRUE	
SNU216LR_PC2_03	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	6	6	0.04%	9.64%	SLRGSDALSETSSVSHIEDLEK	R	V	95.00%	6.02	0.459	0	0	1	0	2	2,440.12	710	731	TRUE	
SNU216LR_PC2_03	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	ATLDEEDLVDSLSEGDAYPNGLQVNFHSPR	R	S	95.00%	3.79	0.36	0	0	1	0	2	3,368.50	21	50	TRUE	
SNU216LR_PC2_03	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	RATLDEEDLVDSLSEGDAYPNGLQVNFHSP	K	S	95.00%	7.65	0.591	0	0	1	1	2	3,524.60	20	50	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	AALKEWNGVVSESDSPVK	K	R	95.00%	3.66	0.263	0	1	0	0	2	1,995.94	37	54	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	AETPTESVSEPEVATK	K	Q	95.00%	3.75	0.488	0	2	0	0	2	1,754.77	193	208	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	EGEDGDQPTTPPKPLK	K	T	95.00%	2.8	0.335	0	1	0	0	2	1,788.81	174	189	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	5.25	0.375	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	EWNGVVSESDSPVK	K	R	95.00%	2.95	0.275	0	1	0	0	2	1,612.69	41	54	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	RTIQEVLEEQSEDEDREAK	K	R	95.00%	4.26	0.19	0	0	1	0	2	2,384.06	131	149	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	TIQEVLEEQSEDEDR	R	E	95.00%	3.29	0.272	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	TIQEVLEEQSEDEDREAKR	R	K	95.00%	3.07	0.19	0	0	1	0	2	2,384.06	132	150	TRUE	
SNU216LR_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	12	0.08%	10.80%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.03	0.375	0	3	0	0	2	1,839.79	63	79	TRUE	
SNU216LR_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.90%	2	3	3	0.02%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	5.92	0.443	0	0	1	1	2	3,734.84	125	160	TRUE	
SNU216LR_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.90%	2	3	3	0.02%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.27	0.244	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216LR_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	4.19%	ALQLSNSPGASSAFLK	K	A	95.00%	3.42	0.36	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216LR_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	4.19%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.79	0.167	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216LR_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	4.19%	RAETFGGFDSHQMNASK	R	G	95.00%	3.95	0.35	0	0	1	0	2	1,962.82	2468	2484	TRUE	
SNU216LR_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	4.19%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	4.62	0.417	0	0	0	1	2	4,169.94	1604	1643	TRUE	
SNU216LR_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	4.19%	SGSLDSELSVSPK	K	R	95.00%	2.63	0.334	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216LR_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	4.19%	SGSLDSELSVSPKR	K	N	95.00%	2.46	0.233	0	1	0	0	2	1,541.72	2722	2735	TRUE	
SNU216LR_PC2_03	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	100.00%	3	3	4	0.03%	6.10%	HADNSSDTEMEDMIAEETLEEMDSELLK	K	C	95.00%	5.79	0.481	0	0	1	0	2	3,292.31	757	784	TRUE	
SNU216LR_PC2_03	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	100.00%	3	3	4	0.03%	6.10%	MDRTPPPPTLSPAAITVGR	R	G	95.00%	4.7	0.375	0	0	2	0	2	2,136.99	606	624	TRUE	
SNU216LR_PC2_03	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	100.00%	3	3	4	0.03%	6.10%	YNVSCSKKFALSR	R	W	94.70%	2.42	0.172	0	1	0	0	2	1,799.70	812	824	TRUE	
SNU216LR_PC2_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	5	0.03%	3.35%	ALEEGDGSVSGSSPR	R	S	95.00%	3.42	0.358	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216LR_PC2_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	5	0.03%	3.35%	IDENSDKEMEVEESPEK	K	I	95.00%	3.74	0.368	0	1	2	0	2	2,087.84	493	509	TRUE	
SNU216LR_PC2_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	5	0.03%	3.35%	IDENSDKEMEVEESPEKIK	K	V	95.00%	3.66	0.266	0	0	1	0	2	2,408.98	493	511	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	2.13%	GISPVVSEHR	K	K	95.00%	2	0.356	0	1	0	0	2	1,160.55	781	790	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	2.13%	GISPVVSEHRK	K	Q	95.00%	2.94	0.448	0	0	1	0	2	1,288.64	781	791	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	2.13%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.09	0.474	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	99.80%	2	2	2	0.01%	8.37%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.59	0.433	0	0	1	0	2	2,008.94	381	399	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	99.80%	2	2	2	0.01%	8.37%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.02	0.425	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216LR_PC2_03	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.21%	SLHPWYGITPTSSPK	K	T	95.00%	3.03	0.408	0	1	0	0	2	1,750.82	459	473	TRUE	
SNU216LR_PC2_03	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.21%	SPVPSPGSSSPQLQVK	R	S	95.00%	4.5	0.488	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216LR_PC2_03	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.21%	VEQMPQASPGLAPR	R	T	95.00%	2.58	0.337	0	1	0	0	2	1,560.72	571	584	TRUE	
SNU216LR_PC2_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	4	5	5	0.03%	8.22%	KINSSPNVNTTASGVEDLNIIQVTIPDDDNE	R	L	89.30%	6.13	0.0118	0	0	1	0	2	3,548.68	786	817	TRUE	
SNU216LR_PC2_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	4	5	5	0.03%	8.22%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.58	0.348	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216LR_PC2_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	4	5	5	0.03%	8.22%	SPSWYGIPR	R	L	95.00%	2.02	0.386	0	1	0	0	2	1,142.50	474	482	TRUE	
SNU216LR_PC2_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	4	5	5	0.03%	8.22%	TNTPVKEDWNVR	R	I	95.00%	2.72	0.43	0	1	1	0	2	1,538.70	515	526	TRUE	
SNU216LR_PC2_03	Striatin	IPI00014456,IPI00654594	81,689.60	99.50%	2	2	2	0.01%	7.44%	DVDELPSLQPSVGSPSRPSSSR	R	L	95.00%	3.15	0.236	0	0	1	0	2	2,377.10	326	347	TRUE	
SNU216LR_PC2_03	Striatin	IPI00014456,IPI00654594	81,689.60	99.50%	2	2	2	0.01%	7.44%	YGTELNQGDMKPPSYDSDEGNETEVQPQC	K	Q	90.00%	6.08	0.0148	0	0	1	0	2	4,223.79	121	156	TRUE	
SNU216LR_PC2_03	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	3	3	0.02%	7.34%	EAANEAGDSSQDEAEDDVK	R	Q	95.00%	3.54	0.486	0	1	0	0	2	2,139.73	153	171	TRUE	
SNU216LR_PC2_03	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	3	3	0.02%	7.34%	IKEEPVSEEGEEDEEQEAEEEPMDTSPSGLH	R	L	95.00%	5.01	0.328	0	0	1	1	2	3,780.55	497	529	TRUE	
SNU216LR_PC2_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	99.80%	1	1	1	0.01%	0.97%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.32	0.569	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216LR_PC2_03	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	10.80%	NSNPVIAELSQAINSGTLLSKPSPPLPPKR	R	G	95.00%	4.69	0.411	0	0	0	1	2	3,205.70	269	298	TRUE	
SNU216LR_PC2_03	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	10.80%	RPLSSSHEASEGQAK	K	D	95.00%	2.14	0.322	0	1	0	0	2	1,663.74	173	187	TRUE	
SNU216LR_PC2_03	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	10.80%	SLPITIEMLK	R	V	95.00%	2.29	0.289	0	1	0	0	2	1,224.63	464	473	TRUE	
SNU216LR_PC2_03	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	10.80%	SSSPVQVEEEPVR	R	L	95.00%	2.56	0.378	0	1	0	0	2	1,522.68	116	128	TRUE	
SNU216LR_PC2_03	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	100.00%	2	2	2	0.01%	3.75%	ASLSPDASDFEHITAETPSRPLSSTSNPFK	K	S	95.00%	3.39	0.186	0	0	1	0	2	3,269.50	241	270	TRUE	
SNU216LR_PC2_03	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	100.00%	2	2	2	0.01%	3.75%	ELSDLEEENR	K	V	95.00%	2.54	0.333	0	1	0	0	2	1,313.53	158	167	TRUE	
SNU216LR_PC2_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	3	3	3	0.02%	3.42%	REEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.06	0.487	0	0	1	0	2	2,595.10	14	38	TRUE	
SNU216LR_PC2_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	3	3	3	0.02%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	3.45	0.386	0	0	1	0	2	2,751.20	13	38	TRUE	
SNU216LR_PC2_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	3	3	3	0.02%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.07	0.502	0	1	0	0	2	1,971.82	39	56	TRUE	
SNU216LR_PC2_03	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.80%	1	2	2	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.89	0.278	0	1	1	0	2	1,770.86	183	198	TRUE	
SNU216LR_PC2_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	4.02	0.364	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216LR_PC2_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	2.46	0.197	0	1	0	0	2	1,997.94	82	100	TRUE	
SNU216LR_PC2_03	insulin-like growth factor 2 mRNA binding proteir	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	2	4	0.03%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3	0.368	0	3	1	0	2	1,980.90	152	168	TRUE	
SNU216LR_PC2_03	sarcolemma associated protein	IPI00030531	93,205.10	100.00%	3	3	3	0.02%	1.97%	AKESDFSDTLSPSKEK	R	S	95.00%	3.39	0.444	0	1	0	0	2	1,848.83	425	440	TRUE	
SNU216LR_PC2_03	sarcolemma associated protein	IPI00030531	93,205.10	100.00%	3	3	3	0.02%	1.97%	ESDFSDTLSPSK	K	E	95.00%	2.4	0.201	0	1	0	0	2	1,392.56	427	438	TRUE	
SNU216LR_PC2_03	sarcolemma associated protein	IPI00030531	93,205.10	100.00%	3	3	3	0.02%	1.97%	ESDFSDTLSPSKEK	K	S	95.00%	2.84	0.261	0	1	0	0	2	1,649.69	427	440	TRUE	
SNU216LR_PC2_03	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	8.48%	FTSSQTQSPTPPKPPSPSFELGLSSFPPLPGA	K	T	95.00%	3.57	0.371	0	0	1	0	2	3,846.90	514	550	TRUE	
SNU216LR_PC2_03	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	8.48%	RPAGGRPSPSAMGK	R	R	95.00%	2.54	0.282	0	1	0	0	2	1,448.68	716	729	TRUE	
SNU216LR_PC2_03	Novel protein	IPI00640055	81,090.60	100.00%	3	3	3	0.02%	8.48%	SPSPAHLPDDPK	R	V	95.00%	2.05	0.317	0	1	0	0	2	1,340.59	604	615	TRUE	
SNU216LR_PC2_03	Double-strand-break repair protein rad21 homolc	IPI00006715	71,691.60	100.00%	1	1	1	0.01%	5.23%	EGSAFEDDDMLVSTTTSNLLLESEQSTSNLN	R	I	83.90%	4.72	0.051	0	0	1	0	2	3,684.60	173	205	TRUE	
SNU216LR_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	5	6	6	0.04%	9.42%	KASPEPPDSAEGALK	R	L	95.00%	4.55	0.558	0	1	1	0	2	1,576.73	545	559	TRUE	
SNU216LR_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	5	6	6	0.04%	9.42%	NSSSPVSPASVPGQR	R	R	95.00%	2.62	0.227	0	1	0	0	2	1,629.67	656	670	TRUE	
SNU216LR_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	5	6	6	0.04%	9.42%	RKASPEPPDSAEGALK	K	L	93.30%	3.14	0.129	0	0	1	0	2	1,732.83	544	559	TRUE	
SNU216LR_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	5	6	6	0.04%	9.42%	RPGSVSSTDQER	K	E	95.00%	2.21	0.314	0	1	0	0	2	1,398.60	331	342	TRUE	
SNU216LR_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	5	6	6	0.04%	9.42%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	D	95.00%	5.01	0.442	0	0	1	0	2	3,241.49	610	641	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	2	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	4.02	0.525	0	1	1	1	2	1,836.88	210	226	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	2	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	2.95	0.398	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216LR_PC2_03	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	3.79	0.463	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216LR_PC2_03	SCC-112 protein	IPI00303063	150,835.50	100.00%	1	1	1	0.01%	1.27%	AAVGQESPGGLEAGNAK	R	A	95.00%	3.41	0.426	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216LR_PC2_03	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	99.80%	2	3	5	0.03%	4.87%	AVPMAPAPASPGSSNDSSAR	K	S	95.00%	3.61	0.304	0	1	1	0	2	1,949.84	750	769	TRUE	
SNU216LR_PC2_03	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	99.80%	2	3	5	0.03%	4.87%	KAPSTSHSGFPPVANGPRSPPSLR	R	C	95.00%	3.35	0.255	0	0	0	3	2	2,524.25	564	587	TRUE	
SNU216LR_PC2_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	5	0.03%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	3.22	0.369	0	2	1	0	2	1,811.70	491	505	TRUE	
SNU216LR_PC2_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	5	0.03%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	2.88	0.345	0	0	2	0	2	2,744.13	491	513	TRUE	
SNU216LR_PC2_03	Ig heavy chain V-III region CAM	REVERSE_IPI00382482-R	13,663.20	99.90%	1	1	1	0.01%	5.74%	YBGYLPR	R	D	95.00%	0.859	0.717	1	0	0	0	2	962.4132	17	23	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.42%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	5.79	0.471	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216LR_PC2_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.42%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.79	0.491	0	2	0	0	2	2,238.86	44	63	TRUE	
SNU216LR_PC2_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.42%	GLWSTDSAEEDKETKR	R	N	95.00%	3.19	0.188	0	1	0	0	2	1,931.84	397	412	TRUE	
SNU216LR_PC2_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.42%	SKPDLESSLESLVFDLR	K	T	93.90%	2.18	0.213	0	1	1	0	2	2,014.97	182	198	TRUE	
SNU216LR_PC2_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	99.80%	1	3	3	0.02%	3.95%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.41	0.416	0	1	1	1	2	2,450.06	90	113	TRUE	
SNU216LR_PC2_03	far upstream element-binding protein	IPI00375441	67,560.60	99.90%	1	2	2	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	3.88	0.516	0	1	1	0	2	2,661.16	621	644	TRUE	
SNU216LR_PC2_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	2.87	0.271	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216LR_PC2_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.12	0.265	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.56%	EKPEEIQDPAALTSDAEQPSGFTFSFFDSDTK	K	D	95.00%	5.33	0.378	0	0	1	0	2	3,614.57	897	928	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.56%	LQDSSSEEEDVTEETDHR	R	N	95.00%	3.07	0.315	0	0	1	0	2	2,345.77	953	970	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.56%	NSISDDDTDSEDELR	R	M	95.00%	2.48	0.193	0	0	1	0	2	1,790.66	169	183	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.56%	NSSPGEASLLEK	R	E	95.00%	2.38	0.428	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	100.00%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFK	R	S	95.00%	3.38	0.3	0	1	1	0	2	1,641.65	275	288	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	100.00%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFKSPSK	R	E	95.00%	3.92	0.378	0	0	1	0	2	2,040.87	275	292	TRUE	
SNU216LR_PC2_03	Isoform 2 of RNA polymerase I-associated factor	IPI00012788,IPI00645816	55,171.70	100.00%	3	3	3	0.02%	10.40%	ILEGPQQSLSGSPLQPIPASPPPQIPPGLRPR	R	F	95.00%	3.15	0.374	0	0	1	0	2	3,404.81	119	150	TRUE	
SNU216LR_PC2_03	Isoform 2 of RNA polymerase I-associated factor	IPI00012788,IPI00645816	55,171.70	100.00%	3	3	3	0.02%	10.40%	QEQINTEPLEDTVLSPTK	K	K	95.00%	4.34	0.426	0	1	0	0	2	2,122.00	273	290	TRUE	
SNU216LR_PC2_03	Isoform 2 of RNA polymerase I-associated factor	IPI00012788,IPI00645816	55,171.70	100.00%	3	3	3	0.02%	10.40%	TVKQEQINTEPLEDTVLSPTK	K	K	95.00%	4.19	0.296	0	0	1	0	2	2,450.21	270	290	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	100.00%	2	2	2	0.01%	3.39%	ASQSRPNSSALETLGGEK	K	L	95.00%	4.49	0.0469	0	1	0	0	2	1,911.88	447	464	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	100.00%	2	2	2	0.01%	3.39%	QVAEQGGDLSPAANR	K	S	95.00%	2.7	0.277	0	1	0	0	2	1,592.71	429	443	TRUE	
SNU216LR_PC2_03	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	2	2	2	0.01%	2.75%	KVNVTVDYIRPASPATETVPAFSER	K	T	90.60%	4.67	0.0676	0	0	1	0	2	2,827.40	414	438	TRUE	
SNU216LR_PC2_03	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	2	2	2	0.01%	2.75%	VNVTVDYIRPASPATETVPAFSER	K	T	95.00%	4.16	0.124	0	0	1	0	2	2,699.31	415	438	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	4	5	5	0.03%	1.79%	NSSTPGLQVPVSPTVPIQNQK	R	Y	95.00%	2.9	0.284	0	0	1	0	2	2,271.14	3025	3045	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	4	5	5	0.03%	1.79%	SASPSVPGPTKPKPK	R	T	95.00%	3.18	0.364	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	4	5	5	0.03%	1.79%	SDTPEVHPPLPISQSPENESNDRR	R	S	95.00%	2.82	0.212	0	0	0	1	2	2,781.25	504	527	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	4	5	5	0.03%	1.79%	SEPRSPSHSMR	R	T	93.30%	2.21	0.254	0	0	1	0	2	1,350.56	746	756	TRUE	
SNU216LR_PC2_03	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.00%	2	2	2	0.01%	3.48%	RPESPPSILTPPVVPTADK	K	V	95.00%	2.87	0.199	0	0	1	0	2	2,081.07	255	273	TRUE	
SNU216LR_PC2_03	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.00%	2	2	2	0.01%	3.48%	SRSASPSTQQEKHPTHHER	R	G	80.80%	3.02	0.136	0	0	0	1	2	2,439.96	218	236	TRUE	
SNU216LR_PC2_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	5	0.03%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	2.73	0.323	0	1	0	0	2	2,279.96	480	500	TRUE	
SNU216LR_PC2_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	5	0.03%	8.20%	DTEGGPKEEESPV	K	-	95.00%	2.32	0.335	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216LR_PC2_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	5	0.03%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.09	0.441	0	1	0	0	2	1,925.87	463	479	TRUE	
SNU216LR_PC2_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	5	0.03%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4.3	0.388	0	1	1	0	2	2,270.04	460	479	TRUE	
SNU216LR_PC2_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	7	8	9	0.06%	10.20%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	4.16	0.382	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216LR_PC2_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	7	8	9	0.06%	10.20%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	3.65	0.34	0	0	1	0	2	2,439.07	279	299	TRUE	
SNU216LR_PC2_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	7	8	9	0.06%	10.20%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	4.15	0.367	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216LR_PC2_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	7	8	9	0.06%	10.20%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	2.92	0.308	0	0	2	0	2	2,623.23	346	369	TRUE	
SNU216LR_PC2_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	7	8	9	0.06%	10.20%	MEVDRSPGLPMSDLK	R	T	95.00%	2.82	0.221	0	1	1	0	2	1,754.79	614	628	TRUE	
SNU216LR_PC2_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	7	8	9	0.06%	10.20%	SKSLKEGLTVQER	R	L	95.00%	2.16	0.303	0	1	0	0	2	1,554.79	1014	1026	TRUE	
SNU216LR_PC2_03	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	7	8	9	0.06%	10.20%	SKSNPDFLKK	K	D	91.70%	2.53	0.188	0	0	1	0	2	1,243.61	991	1000	TRUE	
SNU216LR_PC2_03	Lamin-B2	IPI00009771	69,949.40	100.00%	1	1	2	0.01%	1.94%	AGGPATPLSPTR	R	L	95.00%	1.93	0.311	0	2	0	0	2	1,284.54	29	40	TRUE	
SNU216LR_PC2_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.60%	2	2	2	0.01%	3.46%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	92.30%	6.61	0.0052	0	0	1	0	2	3,783.64	362	396	TRUE	
SNU216LR_PC2_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.60%	2	2	2	0.01%	3.46%	WRPHSPDGPR	R	S	95.00%	2.34	0.181	0	1	0	0	2	1,284.56	232	241	TRUE	
SNU216LR_PC2_03	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	3	4	0.03%	4.05%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	3.41	0.419	0	1	2	0	2	1,927.99	389	406	TRUE	
SNU216LR_PC2_03	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	3	4	0.03%	4.05%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	6.75	0.482	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216LR_PC2_03	HDAC7A protein	IPI00386808,IPI00418482,IP	106,741.10	99.80%	2	3	3	0.02%	4.51%	AQSSPAAPASLSAPEPASQAR	R	V	95.00%	4.02	0.531	0	1	1	0	2	2,073.96	523	543	TRUE	
SNU216LR_PC2_03	HDAC7A protein	IPI00386808,IPI00418482,IP	106,741.10	99.80%	2	3	3	0.02%	4.51%	TRSEPLPPSATAPPPPGPMQPR	R	L	95.00%	4.07	0.336	0	0	1	0	2	2,361.14	395	416	TRUE	
SNU216LR_PC2_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.4	0.365	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216LR_PC2_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	KRVSVELTNSLFK	R	H	95.00%	3.13	0.31	0	0	1	0	2	1,600.85	660	672	TRUE	
SNU216LR_PC2_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	3	3	0.02%	3.63%	RVSVELTNSLFK	K	H	95.00%	2.63	0.221	0	0	1	0	2	1,472.75	661	672	TRUE	
SNU216LR_PC2_03	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	1	1	2	0.01%	2.58%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	4.59	0.445	0	0	2	0	2	3,364.33	341	369	TRUE	
SNU216LR_PC2_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.98	0.568	0	1	1	0	2	2,873.37	59	85	TRUE	
SNU216LR_PC2_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	92.40%	3.95	0.0072	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC2_03	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	2	2	2	0.01%	5.93%	AQQQEEQGSVNDVKEEEKEEK	K	E	95.00%	3.65	0.297	0	0	1	0	2	2,541.10	552	572	TRUE	
SNU216LR_PC2_03	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	2	2	2	0.01%	5.93%	MEVGPFSTGQESPTAENAR	R	L	95.00%	3.65	0.283	0	0	1	0	2	2,087.87	606	624	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	APESDTGDEDQDQER	R	D	95.00%	2.64	0.399	0	1	0	0	2	1,851.60	575	589	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	DKSDSDTEGLLFSR	R	D	95.00%	3.03	0.413	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	GAPSQDDESGGIEDSPDR	K	G	95.00%	4.09	0.412	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	SDSDTEGLLFSR	K	D	95.00%	2.54	0.36	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	SEAEEGEVRTPTK	R	I	95.00%	2.73	0.201	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	SLDGAEFSR	R	P	95.00%	1.83	0.303	0	1	0	0	2	1,061.43	430	438	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	4.17	0.463	0	0	1	2	2	2,794.21	430	455	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.71	0.318	0	0	1	0	2	2,540.10	639	659	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	9	11	12	0.08%	11.50%	SLSPIIGK	R	D	93.20%	1.74	0.133	1	1	0	0	2	894.4698	782	789	TRUE	
SNU216LR_PC2_03	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	3	3	0.02%	7.47%	ELEHNAEETYGENDENTDDKNNDGEEQEV	K	D	95.00%	5.31	0.526	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216LR_PC2_03	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	3	3	0.02%	7.47%	GREEHYEEEEEEEEDGAAVAEK	K	S	95.00%	3.89	0.346	0	1	1	0	2	2,644.02	668	689	TRUE	
SNU216LR_PC2_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	HEHPPNPPVSPGK	R	T	95.00%	3.23	0.312	0	0	1	0	2	1,472.67	664	676	TRUE	
SNU216LR_PC2_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	MESSFGSPSKQESSESLPK	K	E	90.30%	3.42	0.124	0	0	1	0	2	2,121.90	471	489	TRUE	
SNU216LR_PC2_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	RHEHPPNPPVSPGK	K	T	95.00%	3.08	0.392	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216LR_PC2_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.82%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	3.19	0.166	0	0	1	0	2	2,547.16	2310	2332	TRUE	
SNU216LR_PC2_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.82%	VTGPRLVSNHSLHETSSVFVDSLTK	K	A	93.30%	3.32	0.183	0	0	0	1	2	2,790.38	2515	2539	TRUE	
SNU216LR_PC2_03	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	2	2	0.01%	8.70%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	6.56	0.0612	0	0	1	0	2	3,814.66	135	167	TRUE	
SNU216LR_PC2_03	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	2	2	0.01%	8.70%	GPVSPSVSFQPLAR	R	S	95.00%	2.95	0.465	0	1	0	0	2	1,521.75	219	232	TRUE	
SNU216LR_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	7	7	8	0.05%	5.01%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.63	0.362	0	0	1	0	2	2,259.04	1316	1334	TRUE	
SNU216LR_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	7	7	8	0.05%	5.01%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	4.25	0.0086	0	1	0	0	2	2,715.18	304	329	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	7	7	8	0.05%	5.01%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.73	0.126	0	0	1	0	2	1,976.90	433	451	TRUE	
SNU216LR_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	7	7	8	0.05%	5.01%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	6.08	0.439	0	0	2	0	2	2,932.38	374	401	TRUE	
SNU216LR_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	7	7	8	0.05%	5.01%	NHSGSRTPPVALNSSR	R	M	95.00%	2.65	0.282	0	0	1	0	2	1,759.82	2098	2113	TRUE	
SNU216LR_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	7	7	8	0.05%	5.01%	SGSSQELDVKPSASPQER	R	S	95.00%	2.57	0.245	0	1	0	0	2	2,061.85	1539	1556	TRUE	
SNU216LR_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	7	7	8	0.05%	5.01%	SPVPSAFSDQSR	R	C	95.00%	2.04	0.296	0	1	0	0	2	1,357.58	2449	2460	TRUE	
SNU216LR_PC2_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	3	3	0.02%	2.14%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.28	0.326	0	0	1	0	2	3,457.49	2117	2144	TRUE	
SNU216LR_PC2_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	3	3	0.02%	2.14%	ESDQTLAALLSPK	K	E	95.00%	2.39	0.188	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216LR_PC2_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	3	3	0.02%	2.14%	SVESTSPEPSK	K	I	94.10%	1.73	0.274	0	1	0	0	2	1,227.51	278	288	TRUE	
SNU216LR_PC2_03	Similar to Autoantigen protein	IPI00180404,IPI00384447,IP	80,660.40	99.80%	2	2	2	0.01%	2.52%	EMLASDDEEDVSSK	K	V	95.00%	3.22	0.542	0	1	0	0	2	1,634.61	76	89	TRUE	
SNU216LR_PC2_03	Similar to Autoantigen protein	IPI00180404,IPI00384447,IP	80,660.40	99.80%	2	2	2	0.01%	2.52%	EMLASDDEEDVSSKVEK	K	A	95.00%	2.71	0.239	0	0	1	0	2	1,990.82	76	92	TRUE	
SNU216LR_PC2_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	99.80%	1	2	2	0.01%	3.56%	HTGPNSPDTANDGFVR	K	L	95.00%	2.81	0.308	0	1	1	0	2	1,764.73	99	114	TRUE	
SNU216LR_PC2_03	Alpha-taxilin	IPI00470779	61,891.20	99.80%	1	1	1	0.01%	2.56%	RPEGPGAQAPSSPR	R	V	95.00%	3.26	0.392	0	1	0	0	2	1,486.68	504	517	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	AHLSENELEALEK	R	N	95.00%	2.66	0.291	0	1	0	0	2	1,562.71	859	871	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	5.38	0.381	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	GLVAAYSGESDSEEEQER	R	G	95.00%	3.73	0.316	0	2	0	0	2	2,035.81	792	809	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	HRHSPTGPPGFPR	R	D	95.00%	2.49	0.292	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216LR_PC2_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.03%	13.70%	GDSLKEPTSIAESSR	R	H	95.00%	2.78	0.275	0	0	1	0	2	1,656.75	325	339	TRUE	
SNU216LR_PC2_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.03%	13.70%	GVGSPEPGPTAPYLGR	R	S	95.00%	3.16	0.16	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216LR_PC2_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.03%	13.70%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.98	0.304	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216LR_PC2_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.03%	13.70%	SKGSLEITTESQSADAEPPPPPKPDLSR	K	Y	88.30%	4.55	0.0664	0	0	1	0	2	2,913.39	243	269	TRUE	
SNU216LR_PC2_03	GMP synthase	IPI00029079	76,716.70	99.10%	1	1	1	0.01%	1.59%	TLNMTTSPEEK	K	R	82.60%	1.87	0.235	0	1	0	0	2	1,330.56	326	336	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp434A112	IPI00186028,IPI00748953	110,490.70	99.80%	2	2	2	0.01%	2.58%	KQQHVISTEEGDMMETNSTDDEK	R	S	95.00%	4.31	0.371	0	0	1	0	2	2,812.07	840	862	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp434A112	IPI00186028,IPI00748953	110,490.70	99.80%	2	2	2	0.01%	2.58%	KQQHVISTEEGDMMETNSTDDEKSTAK	R	S	95.00%	6.4	0.07	0	0	1	0	2	3,199.28	840	866	TRUE	
SNU216LR_PC2_03	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	3	3	6	0.04%	3.32%	FDHESSPGTDEDKSG	K	-	95.00%	3.73	0.424	0	3	0	0	2	1,687.61	740	754	TRUE	
SNU216LR_PC2_03	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	3	3	6	0.04%	3.32%	KFDHESSPGTDEDKSG	K	-	95.00%	3.28	0.444	0	2	0	0	2	1,815.71	739	754	TRUE	
SNU216LR_PC2_03	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	3	3	6	0.04%	3.32%	RSETPPHWR	R	Q	86.90%	1.77	0.228	0	0	1	0	2	1,245.55	355	363	TRUE	
SNU216LR_PC2_03	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.70%	2	2	2	0.01%	4.94%	ESPEGSYTDDANQEVR	R	G	95.00%	2.74	0.459	0	1	0	0	2	1,876.72	495	510	TRUE	
SNU216LR_PC2_03	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.70%	2	2	2	0.01%	4.94%	TISDGTISASK	R	Q	80.90%	2.13	0.203	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	3	0.02%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.79	0.637	0	1	2	0	2	2,727.04	12	35	TRUE	
SNU216LR_PC2_03	Absent in melanoma 1-like	IPI00017443	50,983.70	99.70%	1	1	1	0.01%	3.52%	RKDVPSPGGLSAPSSPR	R	N	95.00%	4.35	0.447	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216LR_PC2_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.80%	2	2	2	0.01%	4.21%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	3.74	0.502	0	0	1	0	2	3,209.61	696	726	TRUE	
SNU216LR_PC2_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.80%	2	2	2	0.01%	4.21%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.67	0.021	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216LR_PC2_03	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	99.80%	1	1	1	0.01%	4.56%	NHSDSSTSESEVSSVSPLK	K	N	95.00%	5.47	0.0788	0	1	0	0	2	2,056.87	211	229	TRUE	
SNU216LR_PC2_03	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.10%	2	3	3	0.02%	4.89%	APVSSTESVIQSNTPTPPPSQPLNETAEEESR	K	I	81.30%	5.79	0.007	0	0	1	0	2	3,539.55	884	915	TRUE	
SNU216LR_PC2_03	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.10%	2	3	3	0.02%	4.89%	ASPSPQPSSQPLQIHR	R	Q	95.00%	4.07	0.44	0	1	1	0	2	1,809.86	143	158	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	ARPSSPSTSWHR	K	P	95.00%	2.26	0.307	0	0	1	0	2	1,448.64	465	476	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	EANANGSSPEPVK	K	A	95.00%	3.6	0.158	0	1	0	0	2	1,379.58	735	747	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	3.75	0.0634	0	2	0	0	2	2,313.02	538	560	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	GPTPPAMGPR	R	D	90.90%	1.61	0.278	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	LSASTASELSPK	R	S	95.00%	1.94	0.312	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	PAPPQEESPSSEAK	R	S	95.00%	2.48	0.329	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	RSSQPSPTAVPASDSPPTKQEVK	R	K	79.80%	5.44	0.0233	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	SRGPTPPAMGPR	K	D	94.40%	2.05	0.213	0	0	1	0	2	1,303.60	93	104	TRUE	
SNU216LR_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	9	9	10	0.06%	13.60%	SSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	3.31	0.218	0	0	1	0	2	2,318.09	112	133	TRUE	
SNU216LR_PC2_03	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	100.00%	1	2	2	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	2.67	0.262	0	1	1	0	2	2,182.85	9	33	TRUE	
SNU216LR_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	3.29%	GSLAPQDSDSEVSQNR	K	S	95.00%	2.65	0.457	0	1	0	0	2	1,769.73	418	433	TRUE	
SNU216LR_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	3.29%	SLPSRSPPITPNWR	K	S	95.00%	3.08	0.37	0	0	1	0	2	1,687.83	367	380	TRUE	
SNU216LR_PC2_03	CDNA FLJ13144 fis, clone NT2RP3003278	IPI00335437	80,928.10	100.00%	3	3	3	0.02%	5.37%	DEKEALGQNEESPK	R	Q	95.00%	3.64	0.429	0	1	0	0	2	1,653.70	387	400	TRUE	
SNU216LR_PC2_03	CDNA FLJ13144 fis, clone NT2RP3003278	IPI00335437	80,928.10	100.00%	3	3	3	0.02%	5.37%	EALGQNEESPK	K	Q	95.00%	2.65	0.188	0	1	0	0	2	1,281.54	390	400	TRUE	
SNU216LR_PC2_03	CDNA FLJ13144 fis, clone NT2RP3003278	IPI00335437	80,928.10	100.00%	3	3	3	0.02%	5.37%	VLSLLSAPLGSGGFTLLHAAAAAGR	K	G	95.00%	3.46	0.399	0	0	1	0	2	2,430.29	523	547	TRUE	
SNU216LR_PC2_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	99.80%	2	2	2	0.01%	1.51%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	4.15	0.295	0	0	0	1	2	3,718.48	2973	3004	TRUE	
SNU216LR_PC2_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	99.80%	2	2	2	0.01%	1.51%	YYSDSDDELTVEQR	K	R	95.00%	2.92	0.465	0	1	0	0	2	1,799.70	480	493	TRUE	
SNU216LR_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	7	10	11	0.07%	12.10%	AGKEPAKPSPSR	K	D	95.00%	3.28	0.444	0	1	1	0	2	1,304.64	636	647	TRUE	
SNU216LR_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	7	10	11	0.07%	12.10%	RTEGYAAFQEDSSGDEAESPSK	K	M	95.00%	3.09	0.25	0	1	1	0	2	2,520.94	80	101	TRUE	
SNU216LR_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	7	10	11	0.07%	12.10%	TEGYAAFQEDSSGDEAESPSK	R	M	95.00%	2.7	0.242	0	1	0	0	2	2,364.84	81	101	TRUE	
SNU216LR_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	7	10	11	0.07%	12.10%	TGEPSPPHDILHEPPDVVSDDEKDHGK	R	K	95.00%	4.42	0.286	0	0	0	2	2	3,107.30	43	69	TRUE	
SNU216LR_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	7	10	11	0.07%	12.10%	TGEPSPPHDILHEPPDVVSDDEKDHGKK	R	K	95.00%	3	0.172	0	0	0	1	2	3,235.40	43	70	TRUE	
SNU216LR_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	7	10	11	0.07%	12.10%	TPSSEEISPTK	R	F	95.00%	2.63	0.356	0	1	0	0	2	1,255.55	26	36	TRUE	
SNU216LR_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	7	10	11	0.07%	12.10%	TPSSEEISPTKFPGLYR	R	T	95.00%	3.19	0.416	0	1	1	0	2	1,988.94	26	42	TRUE	
SNU216LR_PC2_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	1	2	2	0.01%	1.27%	AKPAMPQDSVPSPR	K	S	95.00%	2.88	0.374	0	1	1	0	2	1,560.72	470	483	TRUE	
SNU216LR_PC2_03	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.70%	2	2	2	0.01%	6.73%	TDGSISGDRQPVTVADYISR	R	A	88.10%	2.78	0.164	0	0	1	0	2	2,296.98	598	617	TRUE	
SNU216LR_PC2_03	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.70%	2	2	2	0.01%	6.73%	TVMDGGLESDGPNMTENGLEDESRPQR	R	R	95.00%	3.97	0.301	0	0	1	0	2	3,014.25	558	584	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein KIAA1949	IPI00152853,IPI00735653	67,942.80	99.70%	2	2	2	0.01%	6.36%	EVESRLSPGESAYQK	K	L	94.40%	2.67	0.15	0	1	0	0	2	1,759.79	218	232	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein KIAA1949	IPI00152853,IPI00735653	67,942.80	99.70%	2	2	2	0.01%	6.36%	LLESPGVEAGEGEAEKEEAGAQGR	K	P	95.00%	4.4	0.453	0	0	1	0	2	2,493.11	365	388	TRUE	
SNU216LR_PC2_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	99.80%	2	2	2	0.01%	1.03%	GSGTASDDEFENLR	R	I	95.00%	2.6	0.225	0	1	0	0	2	1,577.61	1893	1906	TRUE	
SNU216LR_PC2_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	99.80%	2	2	2	0.01%	1.03%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	5.71	0.153	0	0	1	0	2	3,367.43	3796	3826	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.25	0.364	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	4.95	0.385	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein kinase SRPK2	IPI00333420,IPI00396412	79,030.50	99.80%	1	1	1	0.01%	1.74%	TVSASSTGDLPK	R	A	95.00%	2.59	0.188	0	1	0	0	2	1,242.56	503	514	TRUE	
SNU216LR_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	5	5	5	0.03%	5.62%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	95.00%	2.92	0.188	0	0	1	0	2	2,784.31	1467	1492	TRUE	
SNU216LR_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	5	5	5	0.03%	5.62%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.98	0.283	0	0	1	0	2	2,366.08	1320	1340	TRUE	
SNU216LR_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	5	5	5	0.03%	5.62%	SVVSDLEADDVK	K	G	91.80%	1.95	0.223	0	1	0	0	2	1,356.59	1455	1466	TRUE	
SNU216LR_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	5	5	5	0.03%	5.62%	TQMAEVLPSPR	K	G	95.00%	2.68	0.423	0	1	0	0	2	1,308.60	1286	1296	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	5	5	5	0.03%	5.62%	VPDEEENEESDNEKETEK	K	S	95.00%	4.03	0.438	0	1	0	0	2	2,229.86	1178	1195	TRUE	
SNU216LR_PC2_03	Isoform 1 of Transcriptional-regulating factor 1	IPI00044583	132,255.20	99.70%	2	2	2	0.01%	2.67%	AQPGSPESSGQPK	R	G	93.30%	2.07	0.216	0	1	0	0	2	1,349.57	487	499	TRUE	
SNU216LR_PC2_03	Isoform 1 of Transcriptional-regulating factor 1	IPI00044583	132,255.20	99.70%	2	2	2	0.01%	2.67%	DKPASSMSDDEMPVLEIPR	R	K	95.00%	2.41	0.255	0	0	1	0	2	2,196.96	614	632	TRUE	
SNU216LR_PC2_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	5	0.03%	5.15%	GAAAAATGQPGTAPAGTPGAPPLAGMAIV	R	E	95.00%	3.93	0.524	0	0	1	0	2	2,652.32	525	554	TRUE	
SNU216LR_PC2_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	5	0.03%	5.15%	SGEGEVSGLMR	R	K	95.00%	2.42	0.418	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216LR_PC2_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	5	0.03%	5.15%	SRSGEGEVSGLMR	R	K	95.00%	3.31	0.387	0	2	1	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC2_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	AIGSTSKPQESPK	R	G	95.00%	2.85	0.361	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216LR_PC2_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	AIGSTSKPQESPKGK	R	R	95.00%	2.34	0.265	0	1	0	0	2	1,594.78	231	245	TRUE	
SNU216LR_PC2_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.94	0.273	0	1	1	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC2_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	TKPTQAAGPSSPQKPPTPEETK	K	A	95.00%	3.93	0.294	0	0	1	0	2	2,437.11	437	458	TRUE	
SNU216LR_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	6	8	8	0.05%	4.44%	AVVSPPKFVFGSESVK	K	S	95.00%	3.39	0.431	0	1	1	0	2	1,757.89	2507	2522	TRUE	
SNU216LR_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	6	8	8	0.05%	4.44%	EDALDDSVSSSSVHASPLASSPVRK	R	N	95.00%	3.73	0.273	0	0	1	0	2	2,621.21	2231	2255	TRUE	
SNU216LR_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	6	8	8	0.05%	4.44%	NADSEIKHSTPSPTR	R	Y	92.20%	1.95	0.241	0	1	0	0	2	1,799.74	770	784	TRUE	
SNU216LR_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	6	8	8	0.05%	4.44%	NHETDGGSAHGDDDDDDGPHFEPVVPLPDI	K	T	95.00%	3.71	0.258	0	0	0	1	2	3,618.57	1153	1185	TRUE	
SNU216LR_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	6	8	8	0.05%	4.44%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.01	0.397	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216LR_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	6	8	8	0.05%	4.44%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	5.11	0.474	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216LR_PC2_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	7	0.04%	8.78%	AAESETPGKSPEK	K	K	95.00%	2.92	0.372	0	1	1	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC2_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	7	0.04%	8.78%	ATNESEDEIPQLVPIGK	K	K	95.00%	3.11	0.382	0	2	0	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC2_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	7	0.04%	8.78%	KSPAKSPNPSTPR	K	G	95.00%	2.83	0.401	0	2	1	0	2	1,446.71	391	403	TRUE	
SNU216LR_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	5	6	6	0.04%	8.18%	DKASPEPEKDFSEK	K	A	95.00%	3.1	0.361	0	1	1	0	2	1,686.73	684	697	TRUE	
SNU216LR_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	5	6	6	0.04%	8.18%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.61	0.446	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	5	6	6	0.04%	8.18%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.69	0.291	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216LR_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	5	6	6	0.04%	8.18%	TGQAGSLSGSPKPFSPQLSAPITTK	K	T	83.10%	4.89	0.0424	0	0	1	0	2	2,537.27	500	524	TRUE	
SNU216LR_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	5	6	6	0.04%	8.18%	TPPSTTVGSHSPPETPVLTR	K	S	95.00%	2.84	0.247	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	19	0.12%	5.94%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.9	0.468	0	2	3	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	19	0.12%	5.94%	KRSEDESETEDEEEK	K	S	95.00%	2.44	0.245	0	2	0	0	2	2,079.67	666	680	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	19	0.12%	5.94%	RSEDESETEDEEEK	K	S	95.00%	4.04	0.398	0	1	0	0	2	1,791.64	667	680	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	19	0.12%	5.94%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	5.8	0.525	0	0	1	0	2	2,764.06	667	688	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	19	0.12%	5.94%	SEDESETEDEEEK	R	S	95.00%	2.17	0.608	0	2	0	0	2	1,715.51	668	680	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	19	0.12%	5.94%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.59	0.584	0	2	1	0	2	2,607.96	668	688	TRUE	
SNU216LR_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	19	0.12%	5.94%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	6.44	0.584	0	2	3	0	2	2,764.06	668	689	TRUE	
SNU216LR_PC2_03	LKB1 interacting protein	IPI00170934	121,345.00	99.80%	2	2	2	0.01%	2.82%	AKNSPPQAPSTR	R	D	83.10%	1.85	0.209	0	1	0	0	2	1,333.63	769	780	TRUE	
SNU216LR_PC2_03	LKB1 interacting protein	IPI00170934	121,345.00	99.80%	2	2	2	0.01%	2.82%	SPRPTGSDLLPGAPILSLR	R	F	95.00%	2.99	0.275	0	0	1	0	2	2,027.07	610	628	TRUE	
SNU216LR_PC2_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	GDDDEESDEEAVKK	K	T	95.00%	2.94	0.206	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216LR_PC2_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	IKWDEQTSNTKGDDDEESDEEAVK	K	K	95.00%	3.95	0.34	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216LR_PC2_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	WDEQTSNTKGDDDEESDEEAVKK	K	T	95.00%	4.15	0.314	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	DSENLASPSEYPENGER	R	F	95.00%	3.41	0.197	0	2	0	0	2	1,973.78	617	633	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	PAPPPQSQSPEVEQLGR	K	V	95.00%	3.21	0.475	0	0	1	0	2	1,896.89	926	942	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	TAPLPPASQTTPLQMALNGKPAPPPQSQSP	K	V	95.00%	5.34	0.418	0	0	1	1	2	3,913.95	906	942	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	YGLQDSDEEEEEHPSK	K	T	95.00%	4	0.369	0	1	0	0	2	1,971.75	883	898	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ20004	IPI00013537	50,019.10	98.60%	1	1	1	0.01%	4.68%	QADPQPQAWPPPDSPVRVDTVR	R	V	95.00%	3.37	0.335	0	0	1	0	2	2,536.20	310	331	TRUE	
SNU216LR_PC2_03	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.80%	2	3	3	0.02%	5.07%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	7.94	0.52	0	0	1	1	2	4,052.72	188	220	TRUE	
SNU216LR_PC2_03	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.80%	2	3	3	0.02%	5.07%	SFVPEEEKHEER	R	V	95.00%	2.4	0.328	0	0	1	0	2	1,595.67	835	846	TRUE	
SNU216LR_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	12	31	0.20%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	95.00%	2.5	0.324	0	1	0	0	2	2,486.00	175	197	TRUE	
SNU216LR_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	12	31	0.20%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.44	0.316	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216LR_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	12	31	0.20%	11.00%	EEDEPEERSGDETPGSEVPGDKAAEEQGDD	R	S	95.00%	3.82	0.363	0	0	0	1	2	3,870.51	153	187	TRUE	
SNU216LR_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	12	31	0.20%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	4.61	0.46	0	1	2	1	2	2,624.06	152	174	TRUE	
SNU216LR_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	12	31	0.20%	11.00%	SGDETPGSEVPGDK	R	A	95.00%	3.59	0.586	1	3	0	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	12	31	0.20%	11.00%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	5.3	0.684	0	1	0	0	2	2,857.12	161	187	TRUE	
SNU216LR_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	12	31	0.20%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.45	0.475	0	0	2	16	2	4,198.92	226	261	TRUE	
SNU216LR_PC2_03	Calmin	IPI00101942	111,652.50	99.80%	2	2	2	0.01%	4.59%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	3.59	0.158	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216LR_PC2_03	Calmin	IPI00101942	111,652.50	99.80%	2	2	2	0.01%	4.59%	VPSPHETKPDEDAEAFENHAEK	K	L	95.00%	3.42	0.243	0	0	0	1	2	2,557.09	583	604	TRUE	
SNU216LR_PC2_03	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	3	0.383	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	99.80%	1	1	1	0.01%	1.44%	ASLEDAPVDDLTR	R	K	95.00%	2.34	0.335	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	5.53%	DSGSDTASAIIPSTTPSVDSDDESVVK	K	D	95.00%	5.58	0.051	0	1	0	0	2	2,760.20	183	209	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	5.53%	HLFSSTENLAAGSWK	K	E	95.00%	3.36	0.499	0	1	0	0	2	1,727.78	353	367	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	5.53%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	93.00%	5.74	0.0348	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	5.53%	NNMTASMFDLSMK	R	D	95.00%	2.7	0.348	0	1	0	0	2	1,569.61	151	163	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	5.53%	NNMTASMFDLSMKDK	R	S	82.90%	2.3	0.15	0	1	0	0	2	1,812.74	151	165	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	5.53%	RSSLLSLMTGK	R	K	95.00%	2.24	0.292	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	7	7	7	0.04%	5.53%	RSSLLSLMTGKK	R	D	95.00%	2.43	0.233	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC2_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	13.70%	AHAWPSPYK	R	D	95.00%	1.98	0.394	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216LR_PC2_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	13.70%	AHAWPSPYKDYEVK	R	K	95.00%	3.27	0.273	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC2_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	13.70%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	95.00%	4.49	0.373	0	0	0	1	2	4,125.84	299	333	TRUE	
SNU216LR_PC2_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	KTPLALAGSPTPK	K	N	95.00%	2.59	0.333	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216LR_PC2_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	NPEDKSPQLSLSPRPASPK	K	A	95.00%	2.79	0.173	0	0	1	0	2	2,208.01	919	937	TRUE	
SNU216LR_PC2_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.04%	TPLALAGSPTPK	K	N	95.00%	2.54	0.333	0	1	0	0	2	1,232.63	907	918	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.07	0.516	0	1	1	0	2	2,319.95	172	193	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHK	R	K	95.00%	5.35	0.345	0	0	1	0	2	2,991.38	621	648	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHKKP	R	R	95.00%	5.45	0.429	0	0	0	1	2	3,720.74	621	654	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	YVDEENSDGETSNHR	K	L	95.00%	3.35	0.552	0	2	0	0	2	1,831.68	136	150	TRUE	
SNU216LR_PC2_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	1.93%	GRNDSGEENVPLDLTR	R	E	95.00%	2.46	0.221	0	1	0	0	2	1,851.82	17	32	TRUE	
SNU216LR_PC2_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	1.93%	SNSVSLVPPGSSHTLPR	K	R	95.00%	2.59	0.275	0	0	1	0	2	1,894.85	1282	1298	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	2	2	2	0.01%	2.53%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	5.07	0.179	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216LR_PC2_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	2	2	2	0.01%	2.53%	NSSQSGGKPGSSPITK	K	H	95.00%	2.64	0.356	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216LR_PC2_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.80%	2	2	4	0.03%	3.57%	IIYDSDSESEETLQVK	R	N	95.00%	4.02	0.0482	0	2	0	0	2	1,935.85	65	80	TRUE	
SNU216LR_PC2_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.80%	2	2	4	0.03%	3.57%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	4.75	0.545	0	0	2	0	2	2,798.45	152	176	TRUE	
SNU216LR_PC2_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	15	0.10%	8.95%	AEEPPSQLDQDTQVQDMDEGSDDEEEGQI	K	V	95.00%	5.26	0.357	0	0	1	0	2	3,329.28	339	367	TRUE	
SNU216LR_PC2_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	15	0.10%	8.95%	EKQSDDEVYAPGLDIESSLK	R	Q	95.00%	4.86	0.462	0	1	1	0	2	2,303.03	448	467	TRUE	
SNU216LR_PC2_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	15	0.10%	8.95%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	5.33	0.423	0	2	10	0	2	2,697.03	317	338	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	3	4	5	0.03%	4.32%	ADSWVEKEEPAPSN	K	-	95.00%	2.92	0.339	0	1	0	0	2	1,638.67	912	925	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	3	4	5	0.03%	4.32%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	95.00%	4.49	0.124	0	0	1	0	2	3,103.27	670	695	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	3	4	5	0.03%	4.32%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	3.99	0.56	0	2	1	0	2	2,194.90	677	695	TRUE	
SNU216LR_PC2_03	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	99.80%	2	2	2	0.01%	3.32%	RISHSLYSGIEGLDESPSR	R	N	95.00%	4.43	0.3	0	0	1	0	2	2,183.01	713	731	TRUE	
SNU216LR_PC2_03	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	99.80%	2	2	2	0.01%	3.32%	RSSDPALIGLSTSVSDSNFSSEEPSR	R	K	89.00%	6.15	0.0101	0	0	1	0	2	2,805.26	142	167	TRUE	
SNU216LR_PC2_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.40%	2	2	2	0.01%	3.68%	IGSDPLAYEPK	R	E	88.00%	1.81	0.257	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216LR_PC2_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.40%	2	2	2	0.01%	3.68%	INNYLTVPAHKLDSPTMSR	K	A	95.00%	4.36	0.312	0	0	1	0	2	2,237.08	184	202	TRUE	
SNU216LR_PC2_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.78%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.6	0.403	0	0	1	0	2	2,816.12	796	819	TRUE	
SNU216LR_PC2_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.78%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	6.1	0.539	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216LR_PC2_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.78%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	5.84	0.521	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216LR_PC2_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.78%	SSSPAGETEGDREPQAR	R	P	95.00%	2.22	0.246	0	1	0	0	2	1,853.77	1712	1728	TRUE	
SNU216LR_PC2_03	Isoform 2 of Pre-mRNA-processing factor 40 hom	IPI00337385,IPI00337386,IP	106,909.00	100.00%	3	5	5	0.03%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	95.00%	3.55	0.0954	0	1	0	0	2	2,355.90	908	927	TRUE	
SNU216LR_PC2_03	Isoform 2 of Pre-mRNA-processing factor 40 hom	IPI00337385,IPI00337386,IP	106,909.00	100.00%	3	5	5	0.03%	3.72%	HKSDSPESDAEREK	K	D	95.00%	3.41	0.308	0	1	1	1	2	1,694.70	863	876	TRUE	
SNU216LR_PC2_03	Isoform 2 of Pre-mRNA-processing factor 40 hom	IPI00337385,IPI00337386,IP	106,909.00	100.00%	3	5	5	0.03%	3.72%	SDSPESDAEREK	K	D	92.70%	1.64	0.29	0	1	0	0	2	1,509.51	865	876	TRUE	
SNU216LR_PC2_03	KIAA0802 protein	IPI00411635	179,577.30	99.30%	2	2	2	0.01%	1.87%	EDVTPPLSPDDLK	K	Y	86.70%	2.13	0.177	0	1	0	0	2	1,585.64	1049	1061	TRUE	
SNU216LR_PC2_03	KIAA0802 protein	IPI00411635	179,577.30	99.30%	2	2	2	0.01%	1.87%	REGPVGGESDSEEMFEK	K	T	95.00%	3.1	0.268	0	1	0	0	2	1,962.78	403	419	TRUE	
SNU216LR_PC2_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	2	2	2	0.01%	4.55%	LRLSPSPTSQR	R	S	95.00%	1.99	0.286	0	1	0	0	2	1,401.63	387	397	TRUE	
SNU216LR_PC2_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	2	2	2	0.01%	4.55%	NKSNEDQSMGNWQIK	R	R	95.00%	4	0.353	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216LR_PC2_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	99.80%	2	2	2	0.01%	1.10%	KGSDSSIPDEEK	R	M	95.00%	3.09	0.211	0	1	0	0	2	1,371.57	315	326	TRUE	
SNU216LR_PC2_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	99.80%	2	2	2	0.01%	1.10%	TSPLVSQNNEQGSTLR	R	D	95.00%	3.65	0.403	0	1	0	0	2	1,810.83	2052	2067	TRUE	
SNU216LR_PC2_03	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.80%	2	2	2	0.01%	3.44%	SKSPRDPDANWDSPSR	R	V	95.00%	3.64	0.361	0	0	1	0	2	1,894.81	210	225	TRUE	
SNU216LR_PC2_03	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.80%	2	2	2	0.01%	3.44%	VNPHKVSPASSVDSNIPSSQGYKK	K	E	95.00%	3.94	0.363	0	0	1	0	2	2,606.26	481	504	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	3	0.02%	1.71%	KNSLISSLEEEVSILNR	R	Q	95.00%	3.96	0.384	0	0	1	0	2	2,011.01	1223	1239	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	3	0.02%	1.71%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.1	0.421	0	2	0	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	99.90%	2	2	2	0.01%	8.16%	ITFITSFGGSDEEAAAAAAAAAASGVTTGKP	K	N	95.00%	5.78	0.478	0	0	0	1	2	4,099.98	311	354	TRUE	
SNU216LR_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	99.90%	2	2	2	0.01%	8.16%	RDSPTYDPYKR	R	S	95.00%	2.51	0.372	0	0	1	0	2	1,477.65	277	287	TRUE	
SNU216LR_PC2_03	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	6	0.04%	3.37%	FSGFSAKPNNSGEAPSSPTPK	K	R	95.00%	3.37	0.316	0	0	1	0	2	2,186.98	139	159	TRUE	
SNU216LR_PC2_03	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	6	0.04%	3.37%	KFSGFSAKPNNSGEAPSSPTPK	K	R	95.00%	5.3	0.382	0	1	2	0	2	2,315.07	138	159	TRUE	
SNU216LR_PC2_03	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	6	0.04%	3.37%	LTTTGQVTSPVK	K	G	95.00%	2.51	0.185	0	1	0	0	2	1,311.66	115	126	TRUE	
SNU216LR_PC2_03	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	6	0.04%	3.37%	PNNSGEAPSSPTPK	K	R	95.00%	3.82	0.504	0	1	0	0	2	1,462.62	146	159	TRUE	
SNU216LR_PC2_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	5	5	0.03%	2.12%	AQSLVISPPAPSPR	K	K	95.00%	2.29	0.291	0	1	0	0	2	1,579.73	573	586	TRUE	
SNU216LR_PC2_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	5	5	0.03%	2.12%	MKTPVQYSQQQNSPQK	K	H	95.00%	3.21	0.252	0	0	1	0	2	2,051.87	345	360	TRUE	
SNU216LR_PC2_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	5	5	0.03%	2.12%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.27	0.415	0	0	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC2_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	5	5	0.03%	2.12%	TPVQYSQQQNSPQK	K	H	95.00%	3.28	0.343	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC2_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	5	5	0.03%	2.12%	TSGETTQTHTEPTGDSK	R	S	83.80%	2.78	0.0904	0	1	0	0	2	1,856.75	2504	2520	TRUE	
SNU216LR_PC2_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	7	0.04%	6.11%	GVPAGNSDTEGGQPGR	K	K	95.00%	3.09	0.464	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216LR_PC2_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	7	0.04%	6.11%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.24	0.421	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216LR_PC2_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	7	0.04%	6.11%	SLSPGVSR	K	D	95.00%	1.41	0.41	0	1	0	0	2	962.3744	655	662	TRUE	
SNU216LR_PC2_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	7	0.04%	6.11%	SSSISEEKGDSDDEKPR	K	K	95.00%	3.35	0.44	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC2_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	7	0.04%	6.11%	TAQVPSPPR	R	G	95.00%	2.27	0.326	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC2_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.90%	1	1	1	0.01%	0.77%	VDHGAEIITQSPGR	R	S	95.00%	3.2	0.474	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC2_03	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	1	1	1	0.01%	1.78%	TSSAFVGKTPEASPEPK	K	D	95.00%	3.46	0.447	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216LR_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	12	0.08%	11.60%	EVEEDSEDEEMSEDEEDDSSGEEVVIPQKK	K	G	95.00%	4.07	0.271	0	0	2	0	2	3,521.37	23	52	TRUE	
SNU216LR_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	12	0.08%	11.60%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	5.49	0.687	0	0	3	2	2	4,279.38	119	153	TRUE	
SNU216LR_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	12	0.08%	11.60%	KVVVSPTKK	K	V	95.00%	2.16	0.264	0	1	0	0	2	1,065.61	63	71	TRUE	
SNU216LR_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	12	0.08%	11.60%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	K	95.00%	3.46	0.224	0	0	1	0	2	4,094.57	17	51	TRUE	
SNU216LR_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	12	0.08%	11.60%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	G	95.00%	5.27	0.462	0	0	1	2	2	4,142.70	17	52	TRUE	
SNU216LR_PC2_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	3	3	4	0.03%	4.03%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	3.6	0.218	0	0	1	0	2	2,891.35	664	689	TRUE	
SNU216LR_PC2_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	3	3	4	0.03%	4.03%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.37	0.4	0	0	2	0	2	2,380.14	381	401	TRUE	
SNU216LR_PC2_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	3	3	4	0.03%	4.03%	LYNSEESRPYTNK	R	V	95.00%	2.59	0.197	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	117,494.20	99.80%	2	3	3	0.02%	3.79%	ADSEYTDKLQHYTSGHMTPGMK	R	I	95.00%	3.43	0.277	0	0	1	1	2	2,577.08	573	594	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	117,494.20	99.80%	2	3	3	0.02%	3.79%	FLEDDTSDPTYTSALGGK	R	I	95.00%	2.65	0.413	0	1	0	0	2	1,996.84	770	787	TRUE	
SNU216LR_PC2_03	Isoform 1 of Cullin-4B	IPI00179057,IPI00480142,IP	102,760.40	100.00%	1	1	1	0.01%	1.79%	SATDGNTSTTPPTSAK	R	K	85.00%	3.46	0.0215	0	1	0	0	2	1,615.68	27	42	TRUE	
SNU216LR_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	13	25	0.16%	14.50%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	5.89	0.524	0	0	4	0	2	3,233.27	668	695	TRUE	
SNU216LR_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	13	25	0.16%	14.50%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	7.55	0.6	0	1	2	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	13	25	0.16%	14.50%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.8	0.503	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216LR_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	13	25	0.16%	14.50%	LRSPPEALVQGR	R	Y	95.00%	3.02	0.414	0	1	2	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	13	25	0.16%	14.50%	SEVQQPVHPKPLSPDSR	K	A	95.00%	4.06	0.498	0	1	2	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	13	25	0.16%	14.50%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.45	0.491	0	0	5	2	2	3,432.41	666	695	TRUE	
SNU216LR_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	13	25	0.16%	14.50%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.51	0.373	0	1	2	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC2_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	DLSPTLIDNSAAK	R	Q	95.00%	2.36	0.32	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216LR_PC2_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	FQSQADQDQQASGLQSPPSR	K	D	95.00%	3.68	0.464	0	1	1	0	2	2,254.97	466	485	TRUE	
SNU216LR_PC2_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	4.07	0.333	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC2_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	4	5	5	0.03%	8.45%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	4.68	0.574	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216LR_PC2_03	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.30%	2	2	2	0.01%	3.74%	NESEDNKFSDDSDDDFVQPR	R	K	95.00%	3.38	0.462	0	1	0	0	2	2,518.89	983	1002	TRUE	
SNU216LR_PC2_03	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.30%	2	2	2	0.01%	3.74%	SEWLDPSQKSPLHVGETR	K	K	86.50%	2.74	0.171	0	0	1	0	2	2,146.00	768	785	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.95	0.474	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216LR_PC2_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	3.48	0.269	0	0	1	0	2	2,089.00	609	627	TRUE	
SNU216LR_PC2_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.73	0.57	0	0	2	0	2	2,992.36	1263	1291	TRUE	
SNU216LR_PC2_03	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.7	0.313	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216LR_PC2_03	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	5.53	0.454	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	ASPIKMDLAPSK	R	D	80.00%	2.05	0.194	0	1	0	0	2	1,337.65	385	396	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	ASPSKPASAPASR	R	S	95.00%	2.46	0.31	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.63	0.147	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	DMESPTKLDVTLAK	K	D	95.00%	3.48	0.433	0	1	1	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	DMSPLSETEMALGK	K	D	95.00%	3.11	0.442	0	4	0	0	2	1,604.66	533	546	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	5.36	0.442	0	0	3	0	2	3,106.50	533	560	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	DVTPPPETEVVLIK	K	N	95.00%	2.5	0.349	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	ETERASPIKMDLAPSK	K	D	95.00%	3.69	0.417	0	1	2	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	6.71	0.0331	0	0	1	1	2	3,569.64	628	661	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	RASPSKPASAPASR	K	S	95.00%	2.92	0.44	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	SPSTLLPK	R	K	95.00%	1.64	0.257	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216LR_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	22	0.14%	15.60%	VGSLDNVGHLPAGGAVK	K	I	92.70%	2.43	0.2	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC2_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	6	6	0.04%	5.86%	ATLSSTSGLDLMSESGEGEISPQR	K	E	95.00%	4.51	0.418	0	1	0	0	2	2,532.12	672	695	TRUE	
SNU216LR_PC2_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	6	6	0.04%	5.86%	SASVNKEPVSLPGIMR	R	R	95.00%	2.96	0.315	0	1	1	0	2	1,764.87	1157	1172	TRUE	
SNU216LR_PC2_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	6	6	0.04%	5.86%	SHSPSASQSGSSQLR	R	N	95.00%	3	0.399	0	1	1	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC2_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	4	6	6	0.04%	5.86%	VTTEIQLPSQSPVEEQSPASLSSLR	R	S	83.90%	4.82	0.0467	0	0	1	0	2	2,763.35	523	547	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	23.30%	AGLGSPERPPK	R	T	95.00%	2.32	0.257	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	23.30%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.38	0.181	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	23.30%	LGGLRPESPESLTSVSR	R	T	95.00%	2.88	0.283	0	1	1	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	23.30%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.85	0.574	0	1	0	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	5	6	6	0.04%	23.30%	QPEYSPESPR	R	C	87.20%	2	0.209	0	1	0	0	2	1,269.51	106	115	TRUE	
SNU216LR_PC2_03	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	41,802.00	99.80%	2	3	3	0.02%	1.84%	GSPSSHLLGADHGLR	R	K	95.00%	3.42	0.441	0	1	1	0	2	1,583.73	257	271	TRUE	
SNU216LR_PC2_03	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	41,802.00	99.80%	2	3	3	0.02%	1.84%	GSPSSHLLGADHGLRK	R	A	95.00%	2.75	0.234	0	0	1	0	2	1,711.83	257	272	TRUE	
SNU216LR_PC2_03	Signal-induced proliferation-associated protein 1	IPI00305305	112,150.80	99.70%	2	2	2	0.01%	2.78%	AHSHEEASRPAATSTR	R	L	95.00%	3.05	0.18	0	0	0	1	2	1,787.78	72	87	TRUE	
SNU216LR_PC2_03	Signal-induced proliferation-associated protein 1	IPI00305305	112,150.80	99.70%	2	2	2	0.01%	2.78%	TEFLHSQNSLSPR	R	S	94.60%	1.91	0.253	0	1	0	0	2	1,595.72	829	841	TRUE	
SNU216LR_PC2_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	7	0.04%	9.11%	DIEISTEEEKDTGDLKDSSLLK	R	T	95.00%	3.62	0.456	0	1	0	0	2	2,625.15	333	354	TRUE	
SNU216LR_PC2_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	7	0.04%	9.11%	KRSSSEDAESLAPR	R	S	95.00%	3.84	0.363	0	2	2	0	2	1,612.73	296	309	TRUE	
SNU216LR_PC2_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	7	0.04%	9.11%	SRPTSEGSDIESTEPQK	R	Q	95.00%	3.27	0.158	0	1	0	0	2	1,927.83	254	270	TRUE	
SNU216LR_PC2_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	7	0.04%	9.11%	SSSEDAESLAPR	R	S	95.00%	3.14	0.364	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216LR_PC2_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	5	5	0.03%	6.90%	ADIPVKSSPQAAVPYKK	K	D	95.00%	3.01	0.324	0	0	1	0	2	1,878.97	601	617	TRUE	
SNU216LR_PC2_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	5	5	0.03%	6.90%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	4.28	0.391	0	1	1	0	2	2,296.94	948	966	TRUE	
SNU216LR_PC2_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	5	5	0.03%	6.90%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	95.00%	5.06	0.461	0	0	1	1	2	4,426.91	1057	1096	TRUE	
SNU216LR_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	98.80%	1	1	1	0.01%	2.79%	SGTLKSPPKGFDTTAINK	K	S	95.00%	3.33	0.218	0	0	1	0	2	1,941.97	74	91	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	11	0.07%	24.90%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	3.83	0.206	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	11	0.07%	24.90%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.81	0.417	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	11	0.07%	24.90%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.04	0.49	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	11	0.07%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.07	0.321	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	11	0.07%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.71	0.642	0	0	1	5	2	3,735.89	46	80	TRUE	
SNU216LR_PC2_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	4	6	7	0.04%	5.22%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.2	0.446	0	0	2	0	2	2,262.99	1355	1377	TRUE	
SNU216LR_PC2_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	4	6	7	0.04%	5.22%	EASPAPLAQGEPGREDLPTR	R	L	92.50%	2.14	0.216	0	0	1	0	2	2,171.01	1200	1219	TRUE	
SNU216LR_PC2_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	4	6	7	0.04%	5.22%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	4.17	0.341	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216LR_PC2_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	4	6	7	0.04%	5.22%	LPALGEAHVSPEVATADK	R	A	95.00%	3.27	0.356	0	1	1	0	2	1,884.91	1220	1237	TRUE	
SNU216LR_PC2_03	Isoform 1 of Cullin-4A	IPI00419273	88,238.40	99.80%	1	1	1	0.01%	1.31%	KGSFSALVGR	R	T	95.00%	1.86	0.301	0	1	0	0	2	1,101.55	8	17	TRUE	
SNU216LR_PC2_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.21	0.354	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC2_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.08	0.329	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	12.50%	AGLESGAEPGDGDSDTTK	K	K	95.00%	2.98	0.34	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	12.50%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.08	0.27	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	12.50%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	3.64	0.233	0	0	1	0	2	2,042.89	480	499	TRUE	
SNU216LR_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	12.50%	KRESESESDETPPAAPQLIK	R	K	95.00%	3.04	0.259	0	0	1	0	2	2,452.01	447	466	TRUE	
SNU216LR_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	12.50%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	5.23	0.533	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	12.50%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	2.93	0.188	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	AAVLSDSEDEEKASAK	K	K	95.00%	3.33	0.296	0	1	1	0	2	1,809.72	394	409	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	AAVLSDSEDEEKASAKK	K	S	95.00%	3.36	0.425	0	1	0	0	2	1,937.81	394	410	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	EAEDSDSDDNIKR	K	G	95.00%	2.45	0.351	0	2	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	EKTIASDSEEEAGK	R	E	95.00%	2.67	0.325	0	1	0	0	2	1,653.63	433	446	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	EKTIASDSEEEAGKELSDK	R	K	95.00%	3.04	0.352	0	1	0	0	2	2,225.91	433	451	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	FHSSDSEEEEHK	K	K	95.00%	1.55	0.43	0	1	0	0	2	1,700.49	360	371	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	FHSSDSEEEEHKK	K	Q	94.00%	1.63	0.305	0	1	0	0	2	1,828.59	360	372	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	GPASDSETEDASR	K	H	95.00%	2.34	0.47	0	3	0	0	2	1,401.52	310	322	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	HQASDSENEELPKPR	R	I	95.00%	3.91	0.384	0	1	1	0	2	1,816.79	232	246	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	HQASDSENEEPPKPR	R	M	95.00%	3.39	0.398	0	3	1	0	2	1,800.76	193	207	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	ISDSESEDPPR	R	H	95.00%	1.96	0.338	0	2	0	0	2	1,311.51	247	257	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	ISDSESEDPPRHQASDSENEELPKPR	R	I	83.40%	2.39	0.228	0	0	1	0	2	3,189.24	247	272	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	KAAVLSDSEDEEK	K	A	95.00%	2.84	0.388	0	1	0	0	2	1,580.61	393	405	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	MDSDEDEKEGEEEK	K	V	95.00%	3.1	0.361	0	2	1	0	2	1,749.60	375	388	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	MDSDEDEKEGEEEKVAK	K	R	95.00%	4	0.318	0	1	1	0	2	2,047.81	375	391	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	NQASDSENEELPKPR	R	V	95.00%	2.49	0.312	0	2	0	0	2	1,873.74	284	298	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	TIASDSEEEAGK	K	E	95.00%	1.86	0.445	0	1	0	0	2	1,396.49	435	446	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	TIASDSEEEAGKELSDK	K	K	95.00%	3.8	0.335	0	1	1	0	2	1,968.77	435	451	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	TIASDSEEEAGKELSDKK	K	N	95.00%	3.11	0.207	0	1	0	0	2	2,096.87	435	452	TRUE	
SNU216LR_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	26	34	0.22%	21.50%	VSDSESEGPQK	R	G	95.00%	2.34	0.479	0	1	0	0	2	1,242.49	299	309	TRUE	
SNU216LR_PC2_03	Isoform 1 of Hepatocyte growth factor receptor p	IPI00029273,IPI00294528	155,529.20	100.00%	1	1	2	0.01%	1.22%	SVSPTTEMVSNESVDYR	R	A	95.00%	2.92	0.276	0	2	0	0	2	1,980.83	988	1004	TRUE	
SNU216LR_PC2_03	Isoform 1 of NMDA receptor-regulated protein 1	IPI00386189	101,277.90	100.00%	1	1	1	0.01%	2.08%	ITVNGDSSAEAEELANEI	K	-	94.60%	2.3	0.2	0	1	0	0	2	1,941.83	849	866	TRUE	
SNU216LR_PC2_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	2	3	3	0.02%	2.64%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.73	0.412	0	1	1	0	2	2,114.05	687	705	TRUE	
SNU216LR_PC2_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	2	3	3	0.02%	2.64%	MHLPSPTDSNFYR	R	A	95.00%	2.48	0.432	0	1	0	0	2	1,644.69	987	999	TRUE	
SNU216LR_PC2_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	99.80%	2	2	2	0.01%	9.09%	GNSRPGTPSAEGGSTSSTLR	R	A	95.00%	2.38	0.279	0	1	0	0	2	2,078.85	383	402	TRUE	
SNU216LR_PC2_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	99.80%	2	2	2	0.01%	9.09%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	5.93	0.562	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216LR_PC2_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	99.40%	3	3	3	0.02%	2.46%	SATSSSPGSPLHSLETSL	K	-	95.00%	2.4	0.234	0	2	0	0	2	1,837.82	1232	1249	TRUE	
SNU216LR_PC2_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	99.40%	3	3	3	0.02%	2.46%	SSIHNFMTHPEFR	R	I	88.00%	2.53	0.17	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	3	0.02%	7.72%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	5.41	0.593	0	1	1	0	2	3,107.21	566	591	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	3	0.02%	7.72%	SWASLFHDSKPSSSSPVAYVETKYSPPAISPL	K	Q	95.00%	6.49	0.0645	0	0	0	1	2	3,958.92	346	381	TRUE	
SNU216LR_PC2_03	Rho/Rac guanine nucleotide exchange factoR 2	IPI00291316,IPI00412782,IP	111,474.90	99.70%	2	2	2	0.01%	3.15%	EPALPLEPDSGGNTSPGVTANGEAR	R	T	95.00%	3.17	0.227	0	1	0	0	2	2,516.13	681	705	TRUE	
SNU216LR_PC2_03	Rho/Rac guanine nucleotide exchange factoR 2	IPI00291316,IPI00412782,IP	111,474.90	99.70%	2	2	2	0.01%	3.15%	QELGSPEER	R	L	93.00%	1.93	0.211	0	1	0	0	2	1,124.46	927	935	TRUE	
SNU216LR_PC2_03	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	4	4	0.03%	5.35%	AQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	3.93	0.481	0	0	1	0	2	2,948.10	273	297	TRUE	
SNU216LR_PC2_03	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	4	4	0.03%	5.35%	FAEDEEKSENSSEDGDITDK	R	S	95.00%	2.93	0.523	0	1	1	0	2	2,484.83	310	329	TRUE	
SNU216LR_PC2_03	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	4	4	0.03%	5.35%	KAQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	4.93	0.545	0	0	1	0	2	3,156.16	272	297	TRUE	
SNU216LR_PC2_03	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	3	3	0.02%	3.78%	LIHTLDDRTQLWASEPGTPPLPTSLPSQNPIL	K	N	95.00%	5.87	0.166	0	0	0	1	2	3,715.91	527	559	TRUE	
SNU216LR_PC2_03	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	3	3	0.02%	3.78%	TQLWASEPGTPPLPTSLPSQNPILK	R	N	95.00%	3.93	0.451	0	1	1	0	2	2,752.40	535	559	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	6	6	6	0.04%	6.49%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	4.68	0.533	0	1	0	0	2	2,641.12	541	563	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	6	6	6	0.04%	6.49%	KNGSTAVAESVASPQK	R	T	95.00%	3.06	0.338	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	6	6	6	0.04%	6.49%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	6.81	0.622	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	6	6	6	0.04%	6.49%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	3.89	0.384	0	0	1	0	2	2,457.22	1090	1111	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	6	6	6	0.04%	6.49%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.08	0.523	0	0	1	0	2	3,282.51	1464	1495	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	6	6	6	0.04%	6.49%	SEDMPFSPK	R	A	95.00%	2.08	0.286	0	1	0	0	2	1,117.43	264	272	TRUE	
SNU216LR_PC2_03	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	3	3	3	0.02%	5.87%	ELPSLSPAPDTGLSPSKR	R	T	95.00%	4.02	0.397	0	0	1	0	2	1,931.95	253	270	TRUE	
SNU216LR_PC2_03	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	3	3	3	0.02%	5.87%	RLSEQLAHTPTAFK	R	R	95.00%	3.02	0.223	0	0	1	0	2	1,678.83	494	507	TRUE	
SNU216LR_PC2_03	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	3	3	3	0.02%	5.87%	TASNPKVENEDEPVR	R	L	95.00%	2.87	0.364	0	1	0	0	2	1,764.78	292	306	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	3.87	0.242	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	4.42	0.374	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216LR_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	5	0.03%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFDI	K	Q	95.00%	5.98	0.379	0	0	1	1	2	3,353.45	35	69	TRUE	
SNU216LR_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	5	0.03%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFDI	K	E	95.00%	7.99	0.466	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216LR_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	5	0.03%	5.61%	QTELFAHFIQPAAQKTPTSPLK	K	M	95.00%	4.22	0.381	0	0	1	0	2	2,613.25	98	119	TRUE	
SNU216LR_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	9	0.06%	23.90%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	3.69	0.504	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	9	0.06%	23.90%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	89.60%	5.97	0.0174	0	0	1	0	2	3,473.52	264	296	TRUE	
SNU216LR_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	9	0.06%	23.90%	KSTGSPTQETQAPFIAK	K	R	95.00%	3.54	0.291	0	1	1	0	2	1,870.89	67	83	TRUE	
SNU216LR_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	9	0.06%	23.90%	QSSPSGSEQLVR	R	R	95.00%	2.7	0.44	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	9	0.06%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQK	R	R	86.90%	5.92	0.0126	0	0	1	0	2	2,910.17	16	40	TRUE	
SNU216LR_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	9	0.06%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	92.70%	7.03	0.007	0	0	1	0	2	3,066.27	16	41	TRUE	
SNU216LR_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	7	9	9	0.06%	23.90%	STGSPTQETQAPFIAK	K	R	95.00%	3.07	0.437	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC2_03	Condensin complex subunit 3	IPI00106495	114,338.40	99.90%	1	1	1	0.01%	1.38%	SKLNLAQFLNEDLS	K	-	95.00%	3	0.181	0	1	0	0	2	1,671.80	1002	1015	TRUE	
SNU216LR_PC2_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	3	5	0.03%	3.72%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.89	0.351	0	3	1	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC2_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	3	5	0.03%	3.72%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.17	0.379	0	1	0	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC2_03	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	2	2	2	0.01%	4.81%	SESELIDELSEDFDR	R	S	95.00%	3.11	0.324	0	1	0	0	2	1,863.75	342	356	TRUE	
SNU216LR_PC2_03	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	2	2	2	0.01%	4.81%	SLTPAVPVESKPDKPSGK	K	S	95.00%	2.91	0.384	0	0	1	0	2	1,916.97	111	128	TRUE	
SNU216LR_PC2_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	2	3	3	0.02%	1.73%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	3.83	0.452	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216LR_PC2_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	2	3	3	0.02%	1.73%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.72	0.474	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216LR_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	7	8	0.05%	5.51%	HAIMRSPQMVSAIVR	R	T	95.00%	3.11	0.235	0	0	1	0	2	1,775.88	186	200	TRUE	
SNU216LR_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	7	8	0.05%	5.51%	RLSVELTSSLFR	K	T	95.00%	3.16	0.37	0	1	1	0	2	1,487.76	673	684	TRUE	
SNU216LR_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	7	8	0.05%	5.51%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.62	0.427	0	1	2	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	7	8	0.05%	5.51%	SPQMVSAIVR	R	T	95.00%	2.43	0.301	0	1	0	0	2	1,167.56	191	200	TRUE	
SNU216LR_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	7	8	0.05%	5.51%	TSMGGTQQQFVEGVR	K	M	95.00%	2.96	0.497	0	1	0	0	2	1,720.74	551	565	TRUE	
SNU216LR_PC2_03	Ubiquitin-activating enzyme E1	IPI00645078	117,850.30	100.00%	1	1	1	0.01%	1.23%	ATLPSPDKLPGFK	K	M	95.00%	2.17	0.334	0	1	0	0	2	1,450.73	831	843	TRUE	
SNU216LR_PC2_03	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.59	0.398	0	0	1	0	2	1,656.70	340	354	TRUE	
SNU216LR_PC2_03	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.19	0.299	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216LR_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	7	10	12	0.08%	5.02%	GEEGSDDDETENGPKPK	K	K	95.00%	4.03	0.47	0	1	2	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	7	10	12	0.08%	5.02%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	3.94	0.437	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216LR_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	7	10	12	0.08%	5.02%	HPKGEEGSDDDETENGPKPK	R	K	95.00%	3.65	0.276	0	0	1	0	2	2,245.93	985	1004	TRUE	
SNU216LR_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	7	10	12	0.08%	5.02%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	5.16	0.556	0	1	0	0	2	2,436.01	935	955	TRUE	
SNU216LR_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	7	10	12	0.08%	5.02%	KGSGSEQEGEDEEGGER	R	K	95.00%	4.7	0.603	0	2	1	0	2	1,859.69	961	977	TRUE	
SNU216LR_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	7	10	12	0.08%	5.02%	KGSGSEQEGEDEEGGERK	R	K	95.00%	3.29	0.445	0	1	0	0	2	2,067.75	961	978	TRUE	
SNU216LR_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	7	10	12	0.08%	5.02%	RKGSGSEQEGEDEEGGER	R	K	95.00%	2.96	0.343	0	1	1	0	2	2,095.76	960	977	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.82	0.151	0	0	0	2	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	GSPTSAYPER	K	K	90.10%	1.62	0.272	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	HGSDPAFAPGPR	R	G	95.00%	2.47	0.38	0	0	1	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	KGSPTPGFSTR	R	R	95.00%	2.38	0.34	0	1	1	0	2	1,214.56	879	889	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	RGSLTLTISGESPK	R	A	95.00%	2.9	0.246	0	1	1	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	RGSPTTGFIEQK	R	G	95.00%	2.7	0.263	0	0	1	0	2	1,400.66	890	901	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	RGSPVPPVPERR	R	S	95.00%	3.27	0.26	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	RLSLGQGDSTEAATEER	R	G	95.00%	3.86	0.427	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	3.47	0.259	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	RSSPVPPVPERR	R	G	95.00%	3.03	0.269	0	0	1	0	2	1,456.74	923	934	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	SSPVPPVPER	R	R	92.80%	2.04	0.215	0	1	0	0	2	1,144.54	924	933	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	15	16	0.10%	14.90%	VPAAFPTKVPVPGPGSGGNGPER	R	E	95.00%	3.34	0.349	0	0	1	0	2	2,268.12	632	654	TRUE	
SNU216LR_PC2_03	smooth muscle cell associated protein-1 isoform	IPI00072534	103,078.90	100.00%	1	2	2	0.01%	1.48%	PATPGASSVEQLRK	R	E	95.00%	3.47	0.449	0	1	1	0	2	1,520.75	13	26	TRUE	
SNU216LR_PC2_03	Protein AATF	IPI00302238	63,293.10	100.00%	2	3	3	0.02%	8.19%	AGDRNSEDDGVVMTFSSVK	R	V	95.00%	4.05	0.382	0	1	1	0	2	2,093.88	198	216	TRUE	
SNU216LR_PC2_03	Protein AATF	IPI00302238	63,293.10	100.00%	2	3	3	0.02%	8.19%	YLVDGTKPNAGSEEISSEDDELVEEKK	R	Q	82.70%	3.13	0.14	0	0	1	0	2	3,221.31	305	331	TRUE	
SNU216LR_PC2_03	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	2	3	3	0.02%	3.32%	DTTSPMELAALEK	K	I	95.00%	2.6	0.269	0	1	0	0	2	1,485.65	427	439	TRUE	
SNU216LR_PC2_03	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	2	3	3	0.02%	3.32%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	3.39	0.339	0	1	1	0	2	2,045.97	488	506	TRUE	
SNU216LR_PC2_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	4	6	0.04%	5.02%	EEDFRRPSEEDFR	R	R	95.00%	2.88	0.201	0	0	1	0	2	1,791.73	584	596	TRUE	
SNU216LR_PC2_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	4	6	0.04%	5.02%	FPPEDFRHSPEDFR	R	R	95.00%	3.3	0.252	0	0	3	0	2	1,855.78	567	580	TRUE	
SNU216LR_PC2_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	4	6	0.04%	5.02%	SRSPLGFYVHLK	R	N	95.00%	3.08	0.261	0	1	1	0	2	1,483.75	278	289	TRUE	
SNU216LR_PC2_03	Postreplication repair protein RAD18	IPI00024579	56,195.70	99.40%	2	2	2	0.01%	6.46%	NDLQDTEISPR	K	Q	95.00%	2.67	0.288	0	1	0	0	2	1,367.58	463	473	TRUE	
SNU216LR_PC2_03	Postreplication repair protein RAD18	IPI00024579	56,195.70	99.40%	2	2	2	0.01%	6.46%	NHLLQFALESPAKSPASSSSK	R	N	88.70%	4.63	0.0529	0	0	1	0	2	2,279.11	90	110	TRUE	
SNU216LR_PC2_03	COPA protein	IPI00646493	139,327.40	100.00%	1	1	1	0.01%	0.97%	NLSPGAVESDVR	K	G	95.00%	2.97	0.436	0	1	0	0	2	1,323.59	171	182	TRUE	
SNU216LR_PC2_03	mucin 16	REVERSE_IPI00103552-R	1,389,477.90	99.80%	2	2	3	0.02%	0.29%	EVSLPSPWSVDEPGR	K	S	88.30%	2.47	0.145	0	2	0	0	2	1,734.77	3912	3926	TRUE	
SNU216LR_PC2_03	mucin 16	REVERSE_IPI00103552-R	1,389,477.90	99.80%	2	2	3	0.02%	0.29%	TPWTDMTPFVPTPVSTSALTTRVR	R	S	95.00%	2.98	0.264	0	0	0	1	2	2,741.34	12434	12457	TRUE	
SNU216LR_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein l	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	6.14%	AYTPVVVTLWYR	K	A	95.00%	2.95	0.222	0	1	0	0	2	1,547.77	593	604	TRUE	
SNU216LR_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein l	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	6.14%	GTSPRPPEGGLGYSQLGDDDLK	R	E	95.00%	3.57	0.352	0	0	1	0	2	2,339.06	750	771	TRUE	
SNU216LR_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein l	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	6.14%	RDSLEEGELRDHR	K	M	95.00%	2.34	0.209	0	0	0	1	2	1,691.75	45	57	TRUE	
SNU216LR_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein l	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	6.14%	RGTSPRPPEGGLGYSQLGDDDLK	K	E	95.00%	3.13	0.26	0	0	1	0	2	2,495.16	749	771	TRUE	
SNU216LR_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	10	15	0.10%	5.71%	AGAGMITQHSSNASPINR	R	I	95.00%	3.27	0.32	0	1	0	0	2	1,891.85	989	1006	TRUE	
SNU216LR_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	10	15	0.10%	5.71%	DGQDAIAQSPEK	K	E	95.00%	2.86	0.351	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216LR_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	10	15	0.10%	5.71%	DGQDAIAQSPEKESK	K	D	95.00%	3.86	0.327	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	10	15	0.10%	5.71%	DGQDAIAQSPEKESKDYEMNANHK	K	D	95.00%	5.35	0.485	0	0	1	1	2	2,785.18	281	304	TRUE	
SNU216LR_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	10	15	0.10%	5.71%	ISSKSPGHMVILDQTK	R	G	95.00%	3.99	0.495	0	2	4	0	2	1,820.90	549	564	TRUE	
SNU216LR_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	10	15	0.10%	5.71%	SPGHMVILDQTK	K	G	95.00%	2.78	0.309	0	1	1	0	2	1,405.65	553	564	TRUE	
SNU216LR_PC2_03	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	KVSPIKINLK	R	N	95.00%	3.23	0.472	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216LR_PC2_03	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	3.88	0.435	0	1	0	0	2	1,941.82	934	951	TRUE	
SNU216LR_PC2_03	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	3	4	7	0.04%	6.22%	EMDESLANLSEDEYYSEEER	R	N	95.00%	3.95	0.0796	0	1	0	0	2	2,517.95	122	141	TRUE	
SNU216LR_PC2_03	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	3	4	7	0.04%	6.22%	KLPPPPPQAPPEEENESEPEEPSGVEGAAFQ	K	L	95.00%	5.64	0.552	0	0	3	2	2	3,606.63	150	182	TRUE	
SNU216LR_PC2_03	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	3	4	7	0.04%	6.22%	LPPPPPQAPPEEENESEPEEPSGVEGAAFQS	K	L	95.00%	3.7	0.244	0	0	1	0	2	3,478.53	151	182	TRUE	
SNU216LR_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	8	0.05%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.39	0.46	0	1	2	3	2	2,598.14	186	207	TRUE	
SNU216LR_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	8	0.05%	4.25%	SYSPDGKESPSDK	R	K	95.00%	3.35	0.504	0	0	1	0	2	1,476.59	596	608	TRUE	
SNU216LR_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	8	0.05%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.37	0.326	0	1	0	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC2_03	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.52	0.461	0	1	0	0	2	2,816.14	239	264	TRUE	
SNU216LR_PC2_03	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	4.93	0.468	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216LR_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	6	0.04%	1.45%	KHSPSPPPPTPTESR	R	K	95.00%	3.51	0.528	0	2	3	0	2	1,774.76	326	340	TRUE	
SNU216LR_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	6	0.04%	1.45%	RKHSPSPPPPTPTESR	K	K	95.00%	3.9	0.46	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216LR_PC2_03	Isoform 1 of Mitogen-activated protein kinase kir	IPI00329638	91,285.20	100.00%	3	3	3	0.02%	6.62%	SQSNPILGSPFFSHFDGQDSYAAAVR	R	R	95.00%	5.6	0.465	0	0	0	1	2	2,878.28	592	617	TRUE	
SNU216LR_PC2_03	Isoform 1 of Mitogen-activated protein kinase kir	IPI00329638	91,285.20	100.00%	3	3	3	0.02%	6.62%	SSSPTQYGLTK	R	N	95.00%	2.08	0.317	0	1	0	0	2	1,248.55	636	646	TRUE	
SNU216LR_PC2_03	Isoform 1 of Mitogen-activated protein kinase kir	IPI00329638	91,285.20	100.00%	3	3	3	0.02%	6.62%	VSQSALNPHQSPDFKR	R	S	95.00%	3.46	0.301	0	0	1	0	2	1,890.89	718	733	TRUE	
SNU216LR_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	9	9	0.06%	15.80%	EKVSSIDLEIDSLSSLLDDMTK	K	N	95.00%	6.3	0.521	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	9	9	0.06%	15.80%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.79	0.376	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216LR_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	9	9	0.06%	15.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	94.10%	2.92	0.178	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	9	9	0.06%	15.80%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	4.44	0.474	0	0	1	0	2	1,912.96	264	282	TRUE	
SNU216LR_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	9	9	0.06%	15.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.23	0.235	0	1	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	9	9	0.06%	15.80%	SPGAPGPLTLK	R	E	95.00%	2.12	0.447	1	1	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC2_03	Isoform 2 of Nuclear factor NF-kappa-B p100 sub	IPI00411715	44,253.60	99.80%	1	2	2	0.01%	7.44%	ASDGSFSLPLKPVISQPIHDSKSPGASNLK	R	I	95.00%	5.19	0.494	0	0	1	1	2	3,157.59	200	229	TRUE	
SNU216LR_PC2_03	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	1	1	1	0.01%	1.97%	PIRPGQHPAASPTHPSAIR	K	G	95.00%	2.53	0.413	0	0	0	1	2	2,070.04	923	941	TRUE	
SNU216LR_PC2_03	Isoform 3 of Double-stranded RNA-specific adenc	IPI00025058	131,102.00	100.00%	1	1	1	0.01%	1.52%	TAESQTPTPSATSFFSGK	K	S	88.40%	3.13	0.0662	0	1	0	0	2	1,923.84	596	613	TRUE	
SNU216LR_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	6	7	8	0.05%	11.50%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	2.85	0.646	0	1	1	0	2	2,580.79	423	442	TRUE	
SNU216LR_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	6	7	8	0.05%	11.50%	QEEMNSQQEEEEMETDAR	R	S	95.00%	3.97	0.445	0	1	0	0	2	2,292.83	284	301	TRUE	
SNU216LR_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	6	7	8	0.05%	11.50%	SRGSDSPAADVEIEYVTEEPEIYEPNFIFFK	R	R	90.00%	6.08	0.0151	0	0	1	0	2	3,658.65	357	387	TRUE	
SNU216LR_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	6	7	8	0.05%	11.50%	SSLGQSASETEEDTVSVSK	R	K	82.90%	3.17	0.0435	0	1	0	0	2	2,020.86	302	320	TRUE	
SNU216LR_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	6	7	8	0.05%	11.50%	SSLGQSASETEEDTVSVSKK	R	E	95.00%	3.75	0.131	0	2	0	0	2	2,148.95	302	321	TRUE	
SNU216LR_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	6	7	8	0.05%	11.50%	VRGVSSESSGDREK	R	D	95.00%	2.47	0.273	0	0	1	0	2	1,572.70	339	352	TRUE	
SNU216LR_PC2_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	5	7	7	0.04%	19.80%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	3.65	0.374	0	0	1	0	2	2,490.05	106	126	TRUE	
SNU216LR_PC2_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	5	7	7	0.04%	19.80%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	4.39	0.51	0	1	1	0	2	2,786.98	127	147	TRUE	
SNU216LR_PC2_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	5	7	7	0.04%	19.80%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	3.44	0.333	0	0	1	0	2	2,722.03	44	64	TRUE	
SNU216LR_PC2_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	5	7	7	0.04%	19.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	3.69	0.343	0	0	1	0	2	2,850.13	44	65	TRUE	
SNU216LR_PC2_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	5	7	7	0.04%	19.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.34	0.616	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	3	4	4	0.03%	2.27%	ERSDSGGSSSEPFDR	R	H	95.00%	2.93	0.17	0	1	0	0	2	1,692.65	757	771	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	3	4	4	0.03%	2.27%	KGNSPNSEPPTPK	K	T	95.00%	3.28	0.25	0	1	0	0	2	1,432.65	377	389	TRUE	
SNU216LR_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	3	4	4	0.03%	2.27%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	3.35	0.42	0	0	1	1	2	2,537.95	339	359	TRUE	
SNU216LR_PC2_03	Isoform Short of TATA-binding protein-associatec	IPI00020194,IPI00294426	61,558.80	100.00%	1	1	1	0.01%	2.38%	DGRGPMTGSSGGDR	K	G	95.00%	2.44	0.24	0	1	0	0	2	1,429.55	190	203	TRUE	
SNU216LR_PC2_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	99.40%	1	1	1	0.01%	4.27%	VAHEPVAPPEDKESESEAK	R	V	95.00%	5.07	0.445	0	0	1	0	2	2,128.94	8	26	TRUE	
SNU216LR_PC2_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	4	0.03%	2.55%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	4.31	0.385	0	0	2	0	2	2,077.98	64	85	TRUE	
SNU216LR_PC2_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	4	0.03%	2.55%	RGSQKSTDSPGADAELPESAAR	R	D	95.00%	3.12	0.276	0	0	1	0	2	2,469.97	14	35	TRUE	
SNU216LR_PC2_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	4	0.03%	2.55%	STDSPGADAELPESAAR	K	D	95.00%	3.04	0.503	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216LR_PC2_03	septin 9	IPI00748715	63,634.10	99.80%	1	1	1	0.01%	2.82%	SFEVEEVETPNSTPPR	R	R	95.00%	3.87	0.431	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC2_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	2	2	2	0.01%	4.19%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	4.43	0.511	0	0	1	0	2	2,585.34	199	222	TRUE	
SNU216LR_PC2_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	2	2	2	0.01%	4.19%	SASQSSLDKLDQELK	R	E	95.00%	3.35	0.327	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216LR_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	10	0.06%	4.33%	QEEIDESDDDLDDKPSPIK	R	K	95.00%	4.15	0.342	0	1	0	0	2	2,267.94	714	732	TRUE	
SNU216LR_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	10	0.06%	4.33%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	4.85	0.507	0	1	2	0	2	2,476.01	714	733	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	10	0.06%	4.33%	SHPLDLSPNVQSR	K	D	95.00%	2.15	0.278	0	1	0	0	2	1,529.71	1024	1036	TRUE	
SNU216LR_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	10	0.06%	4.33%	TLSDPPSPLPHGPPNK	R	G	95.00%	3.15	0.306	0	2	3	0	2	1,733.83	840	855	TRUE	
SNU216LR_PC2_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.80%	1	2	2	0.01%	2.02%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.67	0.185	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC2_03	GRIP and coiled-coil domain-containing protein 1	IPI00165138	87,813.00	99.10%	2	2	2	0.01%	6.71%	QDLEDASNK	K	A	82.40%	1.66	0.0973	1	0	0	0	2	1,099.43	195	203	TRUE	
SNU216LR_PC2_03	GRIP and coiled-coil domain-containing protein 1	IPI00165138	87,813.00	99.10%	2	2	2	0.01%	6.71%	SPVGGGGPGDPADTSSSDSLTQALQLAAAI	R	K	95.00%	3.83	0.237	0	0	0	1	2	4,387.04	620	662	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.72%	DSALAEAPEGLSPAPPAR	R	S	95.00%	3.06	0.343	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216LR_PC2_03	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.72%	HAPEHHPGHGDRLSPGER	R	R	95.00%	2.76	0.277	0	0	0	1	2	2,065.91	994	1011	TRUE	
SNU216LR_PC2_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	5	5	0.03%	4.87%	GDLSDVEEEEEEEEMDVDEATGAVK	R	K	95.00%	5.11	0.429	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216LR_PC2_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	5	5	0.03%	4.87%	GDLSDVEEEEEEEEMDVDEATGAVKK	R	H	95.00%	4.63	0.343	0	0	1	0	2	2,833.15	829	853	TRUE	
SNU216LR_PC2_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	5	5	0.03%	4.87%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	4.32	0.279	0	0	1	1	2	4,089.02	277	313	TRUE	
SNU216LR_PC2_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	0.79%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	2.49	0.362	0	0	1	0	2	2,327.88	548	567	TRUE	
SNU216LR_PC2_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	0.79%	TDDTSGEDNDEKEAVASK	K	G	95.00%	2.48	0.431	0	1	0	0	2	2,070.74	550	567	TRUE	
SNU216LR_PC2_03	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	4	0.03%	6.27%	LEPVYSPPGSPPPGDPR	R	I	95.00%	2.97	0.338	0	2	0	0	2	1,841.85	338	354	TRUE	
SNU216LR_PC2_03	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	4	0.03%	6.27%	SAMMQQVELDLR	R	E	89.20%	2.51	0.187	0	0	1	0	2	1,644.62	396	407	TRUE	
SNU216LR_PC2_03	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	4	0.03%	6.27%	SSPPLRTPDVLESSGPAVR	R	S	95.00%	4.11	0.486	0	0	1	0	2	2,045.01	675	693	TRUE	
SNU216LR_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	5	5	0.03%	8.60%	DRTPPLLYR	R	D	95.00%	2.9	0.299	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216LR_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	5	5	0.03%	8.60%	GGSREYDTGGGSSSSR	R	L	95.00%	1.65	0.328	0	1	0	0	2	1,639.63	107	122	TRUE	
SNU216LR_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	5	5	0.03%	8.60%	LKSPSQKQDGGTAPVASASPK	K	L	95.00%	4.02	0.286	0	0	1	0	2	2,134.05	763	783	TRUE	
SNU216LR_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	5	5	0.03%	8.60%	SRSPLDKDTYPPSASVVGASVGGHR	R	H	81.50%	2.87	0.16	0	0	0	1	2	2,700.22	257	281	TRUE	
SNU216LR_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	5	5	0.03%	8.60%	TTAPTEGKSPLKK	R	E	95.00%	2.95	0.316	0	1	0	0	2	1,437.74	733	745	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.03%	8.48%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.2	0.254	0	0	0	1	2	2,681.12	47	69	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.03%	8.48%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	3.67	0.259	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216LR_PC2_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.03%	8.48%	TTQSMQDFPVVDSEEEAEEEFQK	R	E	95.00%	5.7	0.478	0	1	1	0	2	2,783.13	198	220	TRUE	
SNU216LR_PC2_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	6.91	0.58	0	0	1	1	2	3,923.85	419	453	TRUE	
SNU216LR_PC2_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.46	0.418	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216LR_PC2_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	K	G	85.70%	4.19	0.106	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216LR_PC2_03	Lamin-B1	IPI00217975	66,278.40	100.00%	1	1	1	0.01%	2.05%	AGGPTTPLSPTR	R	L	91.60%	2.41	0.146	0	1	0	0	2	1,234.58	14	25	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	99.80%	2	2	2	0.01%	2.47%	ELEQHIQTSDPENFQSEER	R	S	95.00%	4.35	0.459	0	0	1	0	2	2,396.00	837	855	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	99.80%	2	2	2	0.01%	2.47%	LFVLLPEQSPVSYSK	R	R	95.00%	3.16	0.245	0	1	0	0	2	1,786.90	736	750	TRUE	
SNU216LR_PC2_03	103 kDa protein	IPI00646058	102,769.00	100.00%	3	5	7	0.04%	5.57%	MSSPEDDSDTKR	K	L	95.00%	2.32	0.39	0	3	1	0	2	1,527.51	382	393	TRUE	
SNU216LR_PC2_03	103 kDa protein	IPI00646058	102,769.00	100.00%	3	5	7	0.04%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	7.27	0.504	0	0	1	1	2	3,056.37	227	253	TRUE	IPI00005648
SNU216LR_PC2_03	103 kDa protein	IPI00646058	102,769.00	100.00%	3	5	7	0.04%	5.57%	SVVSFDKVKEPR	R	K	95.00%	2.66	0.397	0	1	0	0	2	1,470.74	601	612	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	EISDDEAEEEK	K	G	95.00%	3.08	0.442	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	EISDDEAEEEKGEK	K	E	95.00%	3.7	0.469	0	1	1	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	EKEISDDEAEEEK	K	G	95.00%	2.97	0.394	0	2	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	3.79	0.416	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	EREKEISDDEAEEEK	K	G	95.00%	2.56	0.267	0	1	1	0	2	1,915.78	219	233	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	2.67	0.35	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	4.1	0.481	0	3	2	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	23	0.15%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.26	0.479	0	3	4	1	2	2,025.76	249	265	TRUE	
SNU216LR_PC2_03	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	98.80%	1	1	1	0.01%	3.03%	KYIEIDSDEEPRGELLSLR	R	D	94.90%	2.79	0.169	0	0	1	0	2	2,342.13	519	537	TRUE	
SNU216LR_PC2_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	4	4	0.03%	3.55%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.57	0.575	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216LR_PC2_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	4	4	0.03%	3.55%	LSTGTTVEDVQK	R	I	95.00%	2.81	0.425	0	1	0	0	2	1,357.62	494	505	TRUE	
SNU216LR_PC2_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	3	4	4	0.03%	3.55%	SGAASMPSSPK	R	Q	94.00%	1.58	0.271	1	0	0	0	2	1,099.45	223	233	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	DEPAESPSETPGPR	R	P	95.00%	2.2	0.231	0	1	0	0	2	1,548.62	592	605	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	DEPAESPSETPGPRPAGPAGDEPAESPSETP	R	P	95.00%	5.55	0.546	0	0	1	0	2	3,448.48	592	625	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	EGTPGSPSETPGPSPAGPAGDEPAESPSETP	K	P	81.40%	5.45	0.0191	0	0	1	0	2	3,279.40	512	545	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	KVDEGAGDSAAVASGGAQTLALAGSPAPS	R	A	95.00%	6.63	0.493	0	0	1	1	2	3,054.45	460	492	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.21	0.512	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	PAGPAGDEPAESPSETPGPR	R	P	95.00%	3.73	0.429	0	1	0	0	2	1,998.84	546	565	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.67	0.376	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216LR_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	8	10	10	0.06%	25.60%	SVEPQDAGPLER	R	S	95.00%	2.72	0.272	0	1	0	0	2	1,377.60	349	360	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.80%	2	2	2	0.01%	2.71%	APSPPLSQVFQTR	R	A	95.00%	2.21	0.265	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.80%	2	2	2	0.01%	2.71%	SSPVESLKK	R	E	95.00%	1.89	0.253	0	1	0	0	2	1,054.52	77	85	TRUE	
SNU216LR_PC2_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	5	5	0.03%	10.10%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	4.6	0.368	0	1	1	1	2	2,616.22	446	467	TRUE	
SNU216LR_PC2_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	5	5	0.03%	10.10%	SANGGSESDGEENIGWSTVNLDEEK	R	Q	95.00%	4.89	0.552	0	1	0	0	2	2,704.09	591	615	TRUE	
SNU216LR_PC2_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	5	5	0.03%	10.10%	VENMDISDEEEGGAPPPGSPQVLEEDEAELI	R	Q	95.00%	4.17	0.28	0	0	1	0	2	3,840.60	468	501	TRUE	
SNU216LR_PC2_03	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	98.70%	1	1	1	0.01%	3.25%	AGGASPAASSTAQPPTQHR	R	L	95.00%	3.78	0.502	0	1	0	0	2	1,871.84	449	467	TRUE	
SNU216LR_PC2_03	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	2	2	2	0.01%	9.77%	ARPSQFPEQSSSAQQNGSVSDISPVQAAK	R	K	95.00%	5.85	0.436	0	0	1	0	2	3,081.43	98	126	TRUE	
SNU216LR_PC2_03	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	2	2	2	0.01%	9.77%	ELTVDPTAAGDVRPIMHHPPNQIDDLETQV	K	D	95.00%	5	0.364	0	0	0	1	2	4,243.99	532	569	TRUE	
SNU216LR_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.34%	AEEEHLSSSGGLAK	R	N	95.00%	2.76	0.287	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216LR_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.34%	ATSFEESER	R	K	90.90%	1.62	0.31	0	1	0	0	2	1,135.43	947	955	TRUE	
SNU216LR_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.34%	EPPSPSETGPNSLGTFKK	R	T	95.00%	3.24	0.334	0	0	1	0	2	1,952.90	586	603	TRUE	
SNU216LR_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.34%	HLNSSQPSGFGPANSLEDVVR	K	L	95.00%	5.09	0.521	0	0	1	0	2	2,291.05	485	505	TRUE	
SNU216LR_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	5	5	5	0.03%	6.34%	SLFFSSKEDIHTSESESK	K	I	95.00%	3.44	0.295	0	0	1	0	2	2,137.93	925	942	TRUE	
SNU216LR_PC2_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	7	7	0.04%	11.40%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.26	0.055	0	1	1	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC2_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	7	7	0.04%	11.40%	DGAEQQGPEATVEEAEAAAFGSEKPQSMFI	R	R	95.00%	5.81	0.452	0	0	1	1	2	4,396.94	827	867	TRUE	
SNU216LR_PC2_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	7	7	0.04%	11.40%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	4.06	0.447	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216LR_PC2_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	7	7	0.04%	11.40%	QVLQSTQSPR	R	T	95.00%	2.71	0.219	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC2_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	100.00%	5	7	7	0.04%	11.40%	VKPPPSPTTEGPSLQPDLAPEEAAGTQRPK	K	N	95.00%	3.4	0.197	0	0	0	1	2	3,175.57	1004	1033	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	AEASSPVPYLSPETNPASSTSAVNHNVNLTI	K	L	85.90%	5.66	0.0197	0	0	1	0	2	3,503.64	923	955	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.1	0.53	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	3.9	0.337	0	0	2	0	2	2,290.07	266	286	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	DDISEIQSLASDHSGR	R	S	85.10%	2.62	0.114	0	1	0	0	2	1,809.77	287	302	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	95.00%	4.02	0.385	0	0	0	1	2	3,211.37	883	909	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	3.84	0.345	0	0	0	1	2	2,165.08	346	365	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.44	0.223	0	0	0	1	2	3,651.55	111	140	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	4.45	0.423	0	0	0	1	2	3,866.70	877	909	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	SVASSQPAKPTK	R	V	95.00%	2.14	0.363	0	2	0	0	2	1,360.59	175	186	TRUE	
SNU216LR_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	10	10	13	0.08%	10.90%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	5.32	0.398	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216LR_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00185326,IPI00455183,IP	149,265.20	99.80%	2	2	2	0.01%	2.84%	TENSLANENQQPIKSEPESEGEEPK	R	R	95.00%	4.39	0.383	0	0	1	0	2	2,864.25	964	988	TRUE	
SNU216LR_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00185326,IPI00455183,IP	149,265.20	99.80%	2	2	2	0.01%	2.84%	VISRPPPSVSPPK	R	C	95.00%	2.48	0.325	0	0	1	0	2	1,440.76	1025	1037	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	RVNDAEPGSPEAPQGK	R	R	95.00%	3.34	0.441	0	1	0	0	2	1,731.77	75	90	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	VNDAEPGSPEAPQGK	R	R	95.00%	2.84	0.363	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216LR_PC2_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	20	0.13%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	4.64	0.552	0	3	2	0	2	2,141.98	652	670	TRUE	
SNU216LR_PC2_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	20	0.13%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.68	0.56	0	11	2	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC2_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	20	0.13%	4.08%	TSVQTEDDQLIAGQSAR	R	A	95.00%	3.51	0.382	0	2	0	0	2	1,898.85	654	670	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	APQTSSSPPPVR	R	R	95.00%	2.66	0.317	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	HRPSPPATPPPK	R	T	95.00%	3.27	0.466	0	2	5	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	KEKTPELPEPSVK	K	V	95.00%	2.99	0.33	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	KETESEAEDNLDDLEK	K	H	95.00%	4.67	0.453	0	3	2	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.16	0.428	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.78	0.165	0	0	2	1	2	2,791.42	772	797	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	KVELSESEEDKGGK	R	M	95.00%	2.89	0.304	0	2	0	0	2	1,614.73	454	467	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	RRSPSPAPPPR	R	R	92.20%	2.26	0.248	0	0	1	0	2	1,377.62	567	577	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	RRTPSPPPR	R	R	92.00%	1.75	0.273	0	0	1	0	2	1,223.54	588	596	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	RRTPTPPPR	R	R	82.70%	1.77	0.233	0	1	0	0	2	1,237.56	579	587	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	RSPSPAPPPRR	R	R	95.00%	2.27	0.264	0	0	1	0	2	1,297.65	568	578	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	RTASPPPPPK	R	R	88.10%	2.11	0.163	0	1	0	0	2	1,127.56	622	631	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	SPSPAPPPR	R	R	86.90%	1.54	0.272	0	1	0	0	2	1,065.42	569	577	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	SVSGSPEPAAK	R	K	95.00%	2.15	0.353	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	TASPPPPPK	R	R	95.00%	1.91	0.281	0	1	0	0	2	1,051.43	623	631	TRUE	
SNU216LR_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	16	21	32	0.20%	17.60%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.21	0.489	0	1	2	0	2	1,977.99	247	263	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	4.22	0.339	0	0	1	0	2	2,989.46	206	231	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	4.67	0.436	0	0	1	0	2	2,522.20	2140	2161	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	SPGSISYLPSFFTK	R	L	95.00%	2.48	0.273	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216LR_PC2_03	nucleoporin 214kDa	IPI00643352	213,619.00	99.80%	2	2	3	0.02%	1.48%	ITPPAAKPGSPQAK	R	S	95.00%	2.14	0.363	0	1	0	0	2	1,442.74	669	682	TRUE	
SNU216LR_PC2_03	nucleoporin 214kDa	IPI00643352	213,619.00	99.80%	2	2	3	0.02%	1.48%	SPGSTPTTPTSSQAPQK	K	L	95.00%	3.04	0.41	0	2	0	0	2	1,751.79	430	446	TRUE	
SNU216LR_PC2_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.03%	4.23%	IESDEEEDFENVGK	R	V	95.00%	3.36	0.348	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216LR_PC2_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.03%	4.23%	KPDSPPKVLEPENK	K	Q	95.00%	3.37	0.338	0	0	1	0	2	1,657.82	704	717	TRUE	
SNU216LR_PC2_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.03%	4.23%	SVTPTKEFLKDEIK	K	Q	95.00%	3.27	0.313	0	0	1	0	2	1,714.87	365	378	TRUE	
SNU216LR_PC2_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	4	4	4	0.03%	4.23%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	3.37	0.197	0	0	1	0	2	2,263.14	553	571	TRUE	
SNU216LR_PC2_03	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	99.80%	2	2	2	0.01%	2.60%	HSPIAPSSPSPQVLAQK	R	Y	95.00%	4.14	0.308	0	1	0	0	2	1,823.91	305	321	TRUE	
SNU216LR_PC2_03	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	99.80%	2	2	2	0.01%	2.60%	TDSQSVRHSPIAPSSPSPQVLAQK	R	Y	95.00%	5.47	0.0795	0	0	1	0	2	2,597.27	298	321	TRUE	
SNU216LR_PC2_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	99.70%	2	2	2	0.01%	3.62%	ASALLFSSDEEDQWNIPASQTHLASDSR	K	S	95.00%	3.45	0.335	0	0	1	0	2	3,155.40	507	534	TRUE	
SNU216LR_PC2_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	99.70%	2	2	2	0.01%	3.62%	RTPSDDEEDNLFAPPK	R	L	94.70%	2.65	0.155	0	1	0	0	2	1,910.82	224	239	TRUE	
SNU216LR_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	3.83	0.358	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216LR_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.49	0.384	0	0	1	0	2	2,172.03	344	362	TRUE	
SNU216LR_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	5.22	0.476	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216LR_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.03%	6.46%	VGNESPVQELK	K	Q	95.00%	2.51	0.273	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216LR_PC2_03	Zinc finger protein 295	IPI00008137	118,871.60	99.80%	2	2	2	0.01%	3.28%	IKTEPSSPLSDPSDIIR	R	V	95.00%	3.41	0.305	0	0	1	0	2	1,934.95	429	445	TRUE	
SNU216LR_PC2_03	Zinc finger protein 295	IPI00008137	118,871.60	99.80%	2	2	2	0.01%	3.28%	SLSMDSQVPVYSPSIDLK	R	S	95.00%	2.9	0.386	0	1	0	0	2	2,045.95	343	360	TRUE	
SNU216LR_PC2_03	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTK	K	R	95.00%	3.9	0.235	0	0	1	0	2	2,971.13	299	323	TRUE	
SNU216LR_PC2_03	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTKR	K	R	95.00%	3.67	0.309	0	0	1	0	2	3,127.23	299	324	TRUE	
SNU216LR_PC2_03	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	2.78%	AQLGINEDHSEGDEKSEK	R	E	95.00%	3.85	0.381	0	1	0	0	2	2,065.87	211	228	TRUE	
SNU216LR_PC2_03	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	2.78%	RSSTSSEPTPTVK	R	T	94.00%	2.61	0.222	0	1	0	0	2	1,456.67	830	842	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to dynein, axonemal, heavy pc	REVERSE_IPI00743023-R	461,977.50	99.50%	2	2	2	0.01%	1.31%	KYAYPVQVKPEFTSPSATPFR	R	L	89.70%	2.62	0.197	0	0	0	1	2	2,573.19	4035	4055	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to dynein, axonemal, heavy pc	REVERSE_IPI00743023-R	461,977.50	99.50%	2	2	2	0.01%	1.31%	SMRMTEAFRLLDNMPDSGASNIFILPTLCD	K	Y	95.00%	3.86	0.143	0	0	0	1	2	4,001.66	457	489	TRUE	
SNU216LR_PC2_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	1	2	2	0.01%	3.21%	DKSPVREPIDNLTPEER	K	D	95.00%	4.32	0.44	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC2_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	2	3	3	0.02%	3.16%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.15	0.552	0	1	1	0	2	2,016.94	789	806	TRUE	
SNU216LR_PC2_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	2	3	3	0.02%	3.16%	EQTLSPTITSGLHNIAR	R	S	95.00%	3.74	0.282	0	0	1	0	2	1,917.94	1159	1175	TRUE	
SNU216LR_PC2_03	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	99.80%	1	1	1	0.01%	1.33%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.44	0.0884	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216LR_PC2_03	NOL1/NOP2/Sun domain family 2 protein	IPI00306369	86,472.80	100.00%	1	2	2	0.01%	2.61%	ESTQLSPADLTEGKPTDPSK	R	L	95.00%	3.62	0.276	0	1	1	0	2	2,181.00	451	470	TRUE	
SNU216LR_PC2_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	99.80%	1	1	1	0.01%	6.15%	RGSSPDVHALLEITEESDAVLVDK	R	S	95.00%	4.09	0.295	0	0	1	0	2	2,740.25	363	386	TRUE	
SNU216LR_PC2_03	phosphoglucomutase 1	IPI00219526	61,451.10	99.80%	1	1	1	0.01%	4.09%	AIGGIILTASHNPGGPNGDFGIK	K	F	95.00%	3.03	0.242	0	0	0	1	2	2,286.13	108	130	TRUE	
SNU216LR_PC2_03	Isoform 1 of DNA	IPI00031519	189,570.80	99.90%	1	1	1	0.01%	1.13%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.57	0.407	0	1	0	0	2	2,224.85	760	778	TRUE	
SNU216LR_PC2_03	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	3	4	4	0.03%	7.24%	RRSSTVAPAQPDGAESEWTDVETR	K	C	95.00%	5.01	0.48	0	0	1	0	2	2,805.19	805	828	TRUE	
SNU216LR_PC2_03	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	3	4	4	0.03%	7.24%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	4.54	0.542	0	1	1	0	2	2,339.18	682	702	TRUE	
SNU216LR_PC2_03	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	3	4	4	0.03%	7.24%	YMLTHQELASDGEIETK	K	L	95.00%	3.19	0.327	0	1	0	0	2	2,044.89	754	770	TRUE	
SNU216LR_PC2_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	3	4	0.03%	1.26%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.37	0.184	0	0	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	3	4	0.03%	1.26%	GYYSPYSVSGSGSTAGSR	K	T	86.70%	3.73	0.0016	0	1	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	3	4	0.03%	1.26%	SSSVGSSSSYPISPAVSR	R	T	95.00%	4.02	0.0374	0	2	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC2_03	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.80%	2	3	3	0.02%	5.24%	KVTAEADSSSPTGILATSESK	R	S	95.00%	4.13	0.452	0	1	1	0	2	2,159.01	485	505	TRUE	
SNU216LR_PC2_03	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.80%	2	3	3	0.02%	5.24%	SMPVLGSVSSVTK	K	T	95.00%	2.31	0.345	0	1	0	0	2	1,371.66	506	518	TRUE	
SNU216LR_PC2_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	1	1	1	0.01%	5.49%	TVQSLEIDLDSMRNLKASLENSLR	R	E	91.60%	3.31	0.192	0	0	0	1	2	2,892.36	309	332	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	V	95.00%	3.18	0.496	0	1	0	0	2	1,572.68	120	133	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.21	0.442	0	0	1	0	2	3,054.38	478	503	TRUE	
SNU216LR_PC2_03	U3 small nucleolar ribonucleoprotein protein MPF	IPI00012149	78,866.80	98.50%	1	1	1	0.01%	4.41%	KDDNDEEEEDIDFFEDIDSDEDEGGLFGSK	R	K	95.00%	6.44	0.634	0	0	1	0	2	3,533.34	224	253	TRUE	
SNU216LR_PC2_03	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	3.10%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	4.73	0.308	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216LR_PC2_03	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	3.10%	GTNVMVTHYFLPPDDAVPSDDDLGTVPDY	K	K	95.00%	5.19	0.458	0	0	1	0	2	3,713.67	1751	1783	TRUE	
SNU216LR_PC2_03	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	3.10%	GTNVMVTHYFLPPDDAVPSDDDLGTVPDY	K	Q	95.00%	4.83	0.266	0	0	0	1	2	3,841.77	1751	1784	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ran-binding protein 9	IPI00465275,IPI00513912	77,847.60	99.80%	1	1	1	0.01%	4.39%	SQDSYPVSPRPFSSPSMSPSHGMNIHNLAS	K	G	95.00%	4.6	0.148	0	0	0	1	2	3,479.55	470	501	TRUE	
SNU216LR_PC2_03	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	2	2	2	0.01%	3.62%	HYGITSPISLAAPK	K	E	95.00%	4	0.474	0	1	0	0	2	1,534.77	19	32	TRUE	
SNU216LR_PC2_03	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	2	2	2	0.01%	3.62%	TSPLNSSGSSQGR	K	N	95.00%	2.89	0.481	0	1	0	0	2	1,357.57	544	556	TRUE	
SNU216LR_PC2_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	5	5	0.03%	4.21%	DSEDVSERDSDKEMATK	R	S	95.00%	3.25	0.358	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216LR_PC2_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	5	5	0.03%	4.21%	LSAEYEKVELPSEEQVSGSQGPSEEKPAPLA	R	I	95.00%	4.41	0.261	0	0	0	1	2	4,213.96	369	406	TRUE	
SNU216LR_PC2_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	5	5	0.03%	4.21%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	3.75	0.264	0	0	1	1	2	3,085.39	349	375	TRUE	
SNU216LR_PC2_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	5	5	0.03%	4.21%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	4.21	0.372	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	3	3	3	0.02%	2.82%	DKPRSTSPAGQHHSPISSR	R	H	86.10%	2.53	0.164	0	0	1	0	2	2,284.93	312	330	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	3	3	3	0.02%	2.82%	EVSPEVVR	K	S	95.00%	1.69	0.364	0	1	0	0	2	994.4605	196	203	TRUE	
SNU216LR_PC2_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	3	3	3	0.02%	2.82%	HHSSSSQSGSSIQRHSPSPR	R	R	95.00%	2.66	0.188	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216LR_PC2_03	DEAH (Asp-Glu-Ala-His) box polypeptide 36	IPI00027415,IPI00217760	114,779.80	99.80%	1	1	1	0.01%	0.69%	FQDGYYS	R	-	95.00%	1.2	0.32	1	0	0	0	2	959.3183	1002	1008	TRUE	
SNU216LR_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	9	0.06%	6.73%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.25	0.398	0	4	0	0	2	2,103.90	515	533	TRUE	
SNU216LR_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	9	0.06%	6.73%	EEPVSSGPEEAVGK	K	S	95.00%	2.57	0.34	0	1	0	0	2	1,494.64	565	578	TRUE	
SNU216LR_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	9	0.06%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.01	0.368	0	2	0	0	2	1,856.83	562	578	TRUE	
SNU216LR_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	9	0.06%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC2_03	Isoform 1 of High-affinity cAMP-specific and IBM	IPI00030976,IPI00182447,IP	93,306.40	99.80%	1	2	2	0.01%	1.45%	RLSGNEYVLSTK	R	N	95.00%	2.53	0.307	0	1	1	0	2	1,446.70	455	466	TRUE	
SNU216LR_PC2_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.67	0.293	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC2_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.96	0.485	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC2_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.26	0.482	0	1	0	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC2_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	91.40%	5.68	0.0318	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00000728	112,423.40	100.00%	1	1	1	0.01%	1.22%	SPGASNFSTLPK	K	I	95.00%	1.99	0.299	0	1	0	0	2	1,285.58	229	240	TRUE	
SNU216LR_PC2_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	4	5	0.03%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.52	0.361	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216LR_PC2_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	4	5	0.03%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.88	0.344	0	2	1	0	2	1,896.75	495	510	TRUE	
SNU216LR_PC2_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	4	5	0.03%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.57	0.454	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216LR_PC2_03	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	1	1	1	0.01%	0.69%	EAALPPVSPLK	R	A	95.00%	2.34	0.175	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216LR_PC2_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.33	0.384	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216LR_PC2_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	4.26	0.401	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	DNIQPTTE	K	-	95.00%	1.69	0.187	1	0	0	0	2	997.3876	948	955	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	ERSPALKSPLQSVVVR	R	R	95.00%	3.4	0.426	0	2	3	1	2	1,845.99	246	261	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	FSGEEGEIEDDESGTENREEKDNIQPTTE	K	-	95.00%	4.31	0.34	0	0	1	0	2	3,364.35	927	955	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	HGLAHDEMKSPR	K	E	95.00%	2.88	0.275	0	0	1	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	HGLAHDEMKSPREPGYK	K	A	95.00%	3.17	0.297	0	1	1	2	2	2,031.91	689	705	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	IDISPSTFR	R	K	95.00%	2.07	0.287	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	KHGLAHDEMKSPR	R	E	95.00%	2.63	0.278	0	1	0	0	2	1,585.73	688	700	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	KSPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.59	0.391	0	0	1	0	2	2,059.97	314	333	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	PSPPLSSTSQMGSTLPSGAGYQSGTHQGQI	K	K	90.50%	3.82	0.135	0	0	0	1	2	4,124.83	273	313	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	RIDISPSTFR	R	K	95.00%	2.08	0.275	0	0	1	0	2	1,271.61	678	687	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	SPALKSPLQSVVVR	R	R	95.00%	2.68	0.416	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	SPPSTGSTYGSSQK	K	E	95.00%	2.68	0.386	0	1	0	0	2	1,463.61	320	333	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	SPSELFAQHIVTIVHHVK	K	E	95.00%	3.05	0.482	0	0	1	0	2	2,122.08	622	639	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.87	0.128	0	2	0	0	2	1,931.87	315	333	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	TDSEKPFRGSQSPK	K	R	93.80%	2.22	0.202	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	5.78	0.563	0	0	2	0	2	2,717.06	922	944	TRUE	
SNU216LR_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	22	29	0.19%	17.90%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.88	0.343	0	0	2	1	2	3,103.24	922	947	TRUE	
SNU216LR_PC2_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	2	2	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.49	0.479	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216LR_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	2	2	0.01%	5.90%	DVDVSEDSPPPLPER	K	T	95.00%	3.06	0.37	0	1	0	0	2	1,731.75	666	680	TRUE	
SNU216LR_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	2	2	0.01%	5.90%	IADGVNEINTENMISSIEPEKQDSPPPKPPR	K	T	95.00%	5.01	0.375	0	0	0	1	2	3,482.65	309	339	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	7	7	7	0.04%	6.01%	ELSPEGPGK	R	E	95.00%	2.08	0.394	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	7	7	7	0.04%	6.01%	GSTPYKGDDEGIFISR	K	V	95.00%	2.73	0.344	0	1	0	0	2	1,821.81	747	762	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	7	7	7	0.04%	6.01%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.58	0.455	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	7	7	7	0.04%	6.01%	LPLLPPESPGPLR	R	Q	95.00%	2.13	0.233	0	1	0	0	2	1,465.78	846	858	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	7	7	7	0.04%	6.01%	NSLESISSIDR	R	E	95.00%	2.23	0.29	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	7	7	7	0.04%	6.01%	QSPASPPPLGGGAPVR	R	T	95.00%	2.57	0.31	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	7	7	7	0.04%	6.01%	RVSLVGADDLRK	K	M	95.00%	2.71	0.342	0	0	1	0	2	1,408.73	1376	1387	TRUE	
SNU216LR_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	5	5	0.03%	9.52%	EPTPSIASDISLPIATQELR	K	Q	95.00%	3.22	0.163	0	1	1	0	2	2,218.10	723	742	TRUE	
SNU216LR_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	5	5	0.03%	9.52%	GAEPPGISASTQPASAGR	R	A	85.70%	2.12	0.186	0	1	0	0	2	1,813.75	24	41	TRUE	
SNU216LR_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	5	5	0.03%	9.52%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	5.83	0.0621	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216LR_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	5	5	0.03%	9.52%	SSSSLLASPGHISVK	R	E	95.00%	3.45	0.285	0	1	0	0	2	1,549.76	708	722	TRUE	
SNU216LR_PC2_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	3.75%	KPLAAPGDGEGLGQTAQPSPPAR	R	D	95.00%	4.14	0.429	0	0	1	0	2	2,295.11	741	763	TRUE	
SNU216LR_PC2_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	3.75%	MVIQLRPGRSPEPDGPAPAFLR	R	Q	95.00%	3.14	0.321	0	0	0	1	2	2,484.26	774	795	TRUE	
SNU216LR_PC2_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	3.75%	RRSPQEGPTWSR	R	G	95.00%	3.19	0.262	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216LR_PC2_03	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	99.80%	1	1	1	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	3.06	0.403	0	1	0	0	2	1,851.90	937	951	TRUE	
SNU216LR_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.40%	DRSSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.68	0.19	0	0	1	0	2	2,755.34	361	384	TRUE	
SNU216LR_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.40%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	4.56	0.469	0	1	1	0	2	2,253.98	444	462	TRUE	
SNU216LR_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.40%	SNPKSPQKPIVR	R	V	95.00%	3.26	0.427	0	0	1	0	2	1,430.75	147	158	TRUE	
SNU216LR_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	10.40%	SRWSGSHQFEQLSGSILWMAPEVIR	K	M	95.00%	5.12	0.368	0	0	1	0	2	2,981.41	602	626	TRUE	
SNU216LR_PC2_03	HSPC121	IPI00008998	44,424.70	100.00%	2	2	3	0.02%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.91	0.367	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216LR_PC2_03	HSPC121	IPI00008998	44,424.70	100.00%	2	2	3	0.02%	6.17%	WLDESDAEMELR	R	A	95.00%	2.7	0.272	0	2	0	0	2	1,573.62	110	121	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.31%	DSSFTEVPRSPK	R	H	95.00%	2.92	0.426	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216LR_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.31%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.27	0.524	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.31%	SPSFGDPQLSPEARPR	R	C	95.00%	2.45	0.222	0	1	1	0	2	1,900.80	261	276	TRUE	
SNU216LR_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.31%	TPTGEGLLDSPSK	K	T	95.00%	2.99	0.419	0	1	0	0	2	1,381.63	685	697	TRUE	
SNU216LR_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	5	6	6	0.04%	4.31%	YGSFEEAEASYPILNR	K	A	95.00%	3.01	0.175	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216LR_PC2_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	99.80%	2	2	2	0.01%	1.83%	ALTDDSDENEEEEDAFTDQK	K	I	95.00%	4.68	0.558	0	1	0	0	2	2,251.84	1207	1225	TRUE	
SNU216LR_PC2_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	99.80%	2	2	2	0.01%	1.83%	VPDSPENELK	K	S	95.00%	2.2	0.292	0	1	0	0	2	1,207.52	519	528	TRUE	
SNU216LR_PC2_03	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.90%	2	2	2	0.01%	5.70%	GSIDREDGSLQGPIGNQHIYQPVGKPDPAA	R	K	95.00%	3.65	0.177	0	0	0	1	2	3,518.71	842	874	TRUE	
SNU216LR_PC2_03	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.90%	2	2	2	0.01%	5.70%	QATVSWDSGGSDEAPPKPSRPGYPSPR	R	S	95.00%	4.28	0.219	0	0	0	1	2	2,906.31	698	724	TRUE	
SNU216LR_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	5	5	0.03%	5.77%	RYEDDGISDDEIEGK	R	R	93.90%	2.75	0.136	0	1	0	0	2	1,820.72	21	35	TRUE	
SNU216LR_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	5	5	0.03%	5.77%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.15	0.427	0	0	1	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	5	5	0.03%	5.77%	TPQRGDEEGLGGEEEEEEEEEEEDDSAEEGC	R	L	95.00%	8.18	0.702	0	0	1	0	2	3,773.42	844	877	TRUE	
SNU216LR_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	5	5	0.03%	5.77%	YEDDGISDDEIEGK	R	R	95.00%	2.26	0.312	0	1	0	0	2	1,664.62	22	35	TRUE	
SNU216LR_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	5	6	0.04%	6.11%	AAVVTSPPPTTAPHK	R	E	95.00%	2.85	0.485	0	1	1	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	5	6	0.04%	6.11%	SPGSPVGEGTGSPPK	R	W	95.00%	3.23	0.454	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	5	6	0.04%	6.11%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.55	0.442	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216LR_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	5	6	0.04%	6.11%	SRSPGSPVGEGTGSPPK	K	W	95.00%	2.59	0.316	0	2	0	0	2	1,756.73	353	369	TRUE	
SNU216LR_PC2_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.43	0.427	0	1	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC2_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.73	0.381	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216LR_PC2_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	5	5	0.03%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.53	0.517	0	1	1	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC2_03	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	3	3	0.02%	4.89%	AMTLSPQEEVAAGQMASSSR	R	S	95.00%	4.73	0.512	0	1	0	0	2	2,130.92	313	332	TRUE	
SNU216LR_PC2_03	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	3	3	0.02%	4.89%	VSGSPEQAVEENLSSYSLDR	K	R	95.00%	4.4	0.552	0	1	0	0	2	2,246.98	174	193	TRUE	
SNU216LR_PC2_03	Transforming acidic coiled-coil-containing protein	IPI00002135	90,359.70	100.00%	3	3	3	0.02%	4.89%	VSGSPEQAVEENLSSYSLDRR	K	V	95.00%	3	0.295	0	0	1	0	2	2,403.08	174	194	TRUE	
SNU216LR_PC2_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	3.00%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.54	0.384	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216LR_PC2_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	3.00%	LEKSPLAGNK	K	D	95.00%	2.21	0.271	0	1	0	0	2	1,136.57	622	631	TRUE	
SNU216LR_PC2_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	3.00%	LEKSPLAGNKDNK	K	F	95.00%	2.83	0.187	0	0	1	0	2	1,493.74	622	634	TRUE	
SNU216LR_PC2_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	3.00%	SRESASPTIPNLDLLEAHTK	K	E	95.00%	3.24	0.236	0	0	1	0	2	2,259.10	534	553	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	DLDEEGSEKELHENVLDK	K	E	95.00%	4.35	0.415	0	1	0	0	2	2,178.94	573	590	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	EFDEDSDEKEEEEDTVEK	R	V	95.00%	5.01	0.49	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	ELHENVLDKELEENDSENSEFEDDGSEK	K	V	95.00%	4.98	0.361	0	0	1	0	2	3,519.29	582	609	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	ESEDDLNKESEEEVGPTK	K	E	95.00%	3.93	0.391	0	1	0	0	2	2,114.87	520	537	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	LFDEEEDSSEKLFDDSDER	K	G	95.00%	3.2	0.413	0	2	2	0	2	2,464.90	706	724	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	LFEDDDSNEK	K	L	81.60%	1.73	0.0842	1	0	0	0	2	1,291.47	696	705	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	5.32	0.521	0	1	0	0	2	2,600.01	696	716	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	LFEDDDSNEKLFDEEEDSSEKLFDDSDER	K	G	95.00%	3.83	0.207	0	0	1	0	2	3,657.38	696	724	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	LFEESDDKEDEDADGK	K	E	95.00%	4.06	0.252	0	1	0	0	2	1,921.72	672	687	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	5.66	0.533	0	1	2	1	2	2,837.11	672	695	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.39	0.377	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	6.62	0.423	0	0	1	1	2	2,956.18	637	661	TRUE	
SNU216LR_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	13	19	22	0.14%	21.20%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	2.69	0.229	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC2_03	Isoform Beta of Striatin-3	IPI00011461	87,661.80	100.00%	2	2	3	0.02%	5.87%	NLEQILNGGESPK	K	Q	95.00%	2.82	0.189	0	1	0	0	2	1,478.69	219	231	TRUE	
SNU216LR_PC2_03	Isoform Beta of Striatin-3	IPI00011461	87,661.80	100.00%	2	2	3	0.02%	5.87%	SSGDVLETFNFLENADDSDEDEENDMIEGI	R	D	95.00%	4.96	0.566	0	0	2	0	2	3,840.55	240	273	TRUE	
SNU216LR_PC2_03	heterogeneous nuclear ribonucleoprotein U isofo	IPI00644079	90,585.20	100.00%	2	2	2	0.01%	6.06%	LQAALDDEEAGGRPAMEPGNGSLDLGGDS	R	S	95.00%	4.6	0.298	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216LR_PC2_03	heterogeneous nuclear ribonucleoprotein U isofo	IPI00644079	90,585.20	100.00%	2	2	2	0.01%	6.06%	SSGPTSLFAVTVAPPGAR	K	Q	89.70%	2.7	0.14	0	1	0	0	2	1,794.88	187	204	TRUE	
SNU216LR_PC2_03	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	KADTTTPTPTAILAPGSPASPPGSLEPK	R	A	95.00%	5.23	0.438	0	0	2	0	2	2,782.39	282	309	TRUE	
SNU216LR_PC2_03	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEK	K	R	95.00%	3.55	0.196	0	0	1	0	2	3,008.24	622	647	TRUE	
SNU216LR_PC2_03	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEKR	K	Q	95.00%	4.15	0.255	0	0	0	1	2	3,164.34	622	648	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	3	0.02%	2.96%	QNPEQSADEDAEK	K	N	95.00%	2.25	0.253	0	1	0	0	2	1,540.58	161	173	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	3	0.02%	2.96%	QPLLLSEDEEDTKR	K	V	95.00%	2.7	0.291	0	1	1	0	2	1,752.81	34	47	TRUE	
SNU216LR_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	7	9	12	0.08%	14.70%	AQGSDEDKLQNSDDDEK	R	M	95.00%	3.35	0.483	0	2	0	0	2	2,053.73	168	184	TRUE	
SNU216LR_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	7	9	12	0.08%	14.70%	EDKSDQSDDEKIQNSDDEER	R	A	95.00%	2.54	0.414	0	1	1	0	2	2,621.88	148	167	TRUE	
SNU216LR_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	7	9	12	0.08%	14.70%	KLTSDEEGEPSGK	K	R	95.00%	2.34	0.447	0	2	0	0	2	1,536.59	627	639	TRUE	
SNU216LR_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	7	9	12	0.08%	14.70%	KLTSDEEGEPSGKR	K	K	95.00%	2.56	0.393	0	1	1	0	2	1,692.69	627	640	TRUE	
SNU216LR_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	7	9	12	0.08%	14.70%	KYVISDEEEEDDD	K	-	95.00%	2.52	0.402	0	1	0	0	2	1,665.61	654	666	TRUE	
SNU216LR_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	7	9	12	0.08%	14.70%	MQNTDDEERPQLSDDER	K	Q	95.00%	2.39	0.25	0	1	0	0	2	2,237.81	185	201	TRUE	
SNU216LR_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	7	9	12	0.08%	14.70%	NAIASDSEADSDTEVPK	K	D	95.00%	3.43	0.349	0	2	0	0	2	1,828.75	290	306	TRUE	
SNU216LR_PC2_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	99.80%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	4.01	0.498	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC2_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	99.80%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.22	0.404	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC2_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	99.80%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	4.7	0.51	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216LR_PC2_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	4	5	0.03%	3.86%	SKPIPIMPASPQK	K	G	95.00%	3.21	0.345	0	1	1	0	2	1,473.75	596	608	TRUE	
SNU216LR_PC2_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	4	5	0.03%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	5.14	0.613	0	0	1	2	2	3,011.63	596	623	TRUE	
SNU216LR_PC2_03	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	3	6	7	0.04%	8.48%	DGLLSPGAWNGEPSGEGSR	K	S	95.00%	3.4	0.403	0	1	0	0	2	1,965.83	504	522	TRUE	
SNU216LR_PC2_03	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	3	6	7	0.04%	8.48%	ETPRPEGGSPSPAGTPPQPK	R	R	95.00%	3.65	0.348	0	2	1	0	2	2,066.95	476	495	TRUE	
SNU216LR_PC2_03	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	3	6	7	0.04%	8.48%	GAGAAGLPQPPRESPQLHER	R	E	95.00%	3.3	0.427	0	1	1	1	2	2,148.03	456	475	TRUE	
SNU216LR_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	6	8	11	0.07%	14.70%	AGSSAAGASGWTSAGSLNSVPTNSAQQGI	K	G	89.60%	4.7	0.0639	0	0	2	0	2	3,972.70	721	761	TRUE	
SNU216LR_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	6	8	11	0.07%	14.70%	ANFDEENAYFEDEEEDSSNVDLPYIPAENSI	R	Q	95.00%	3.79	0.319	0	0	1	0	2	3,886.58	67	99	TRUE	
SNU216LR_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	6	8	11	0.07%	14.70%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	5.45	0.499	0	0	1	1	2	3,457.45	100	129	TRUE	
SNU216LR_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	6	8	11	0.07%	14.70%	RANFDEENAYFEDEEEDSSNVDLPYIPAENS	K	Q	95.00%	6.47	0.472	0	0	1	0	2	4,042.68	66	99	TRUE	
SNU216LR_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	6	8	11	0.07%	14.70%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	K	95.00%	4.3	0.418	0	0	1	0	2	3,605.52	163	194	TRUE	
SNU216LR_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	6	8	11	0.07%	14.70%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	5.47	0.469	0	0	3	1	2	3,749.61	163	195	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	1	2	2	0.01%	1.45%	HLSPYATLTVGDSSHK	K	T	95.00%	3.94	0.355	0	1	1	0	2	1,792.83	818	833	TRUE	
SNU216LR_PC2_03	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	2	2	2	0.01%	3.98%	QTPMASSPRPK	K	M	95.00%	2.25	0.268	0	1	0	0	2	1,279.59	150	160	TRUE	
SNU216LR_PC2_03	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	2	2	2	0.01%	3.98%	TVNSTRETPPK	R	S	95.00%	2.18	0.253	0	1	0	0	2	1,309.61	44	54	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	99.80%	2	2	2	0.01%	2.15%	VQAYEEPSVASSPNGK	R	E	95.00%	3.32	0.508	0	1	0	0	2	1,742.76	719	734	TRUE	
SNU216LR_PC2_03	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	99.80%	2	2	2	0.01%	2.15%	VQAYEEPSVASSPNGKESDLRR	R	S	95.00%	3.73	0.306	0	0	0	1	2	2,499.15	719	740	TRUE	
SNU216LR_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	7.98%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	6.99	0.594	0	0	1	0	2	3,607.53	769	801	TRUE	
SNU216LR_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	7.98%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.27	0.445	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216LR_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	7.98%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.79	0.416	0	0	1	0	2	2,218.96	5	25	TRUE	
SNU216LR_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	7.98%	KGVLGKSPLSALAR	K	K	95.00%	2.62	0.409	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216LR_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	7.98%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.36	0.32	0	0	2	0	2	2,300.10	1254	1275	TRUE	
SNU216LR_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	7.98%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.02	0.376	0	2	1	0	2	2,172.01	1255	1275	TRUE	
SNU216LR_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	7.98%	SPAPGAPTRSPSTPAK	K	S	95.00%	2.75	0.441	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ23660	IPI00152701	89,259.90	99.80%	2	2	2	0.01%	5.20%	ALSDREEEEEDDEEEEEEVEAAAQR	R	R	95.00%	5.23	0.441	0	0	1	0	2	3,016.17	494	518	TRUE	
SNU216LR_PC2_03	Hypothetical protein FLJ23660	IPI00152701	89,259.90	99.80%	2	2	2	0.01%	5.20%	APSQHIFFVQHIEAVR	R	E	95.00%	3.66	0.422	0	0	1	0	2	1,958.96	103	118	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 2	IPI00015973	112,587.80	100.00%	3	3	3	0.02%	7.06%	EVAENQQNQSSDPEEEKGSQPPPAAESQS	K	R	95.00%	4.89	0.459	0	0	1	0	2	3,533.53	29	60	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 2	IPI00015973	112,587.80	100.00%	3	3	3	0.02%	7.06%	EVRSPTKAPHLQLIEGK	R	K	95.00%	2.7	0.347	0	0	0	1	2	1,983.04	595	611	TRUE	
SNU216LR_PC2_03	Band 4.1-like protein 2	IPI00015973	112,587.80	100.00%	3	3	3	0.02%	7.06%	ITPLSLQTQGSSHETLNIVEEK	R	K	93.50%	3.16	0.238	0	0	1	0	2	2,504.23	672	693	TRUE	
SNU216LR_PC2_03	Zinc finger protein 148	IPI00010833	88,976.40	99.80%	2	2	2	0.01%	2.90%	GGLLTSEEDSGFSTSPK	K	D	95.00%	3.37	0.335	0	1	0	0	2	1,791.77	292	308	TRUE	
SNU216LR_PC2_03	Zinc finger protein 148	IPI00010833	88,976.40	99.80%	2	2	2	0.01%	2.90%	GGLLTSEEDSGFSTSPKDNSLPK	K	K	95.00%	4.24	0.331	0	0	1	0	2	2,446.10	292	314	TRUE	
SNU216LR_PC2_03	GYS1 protein	IPI00157144,IPI00303868	83,787.10	98.60%	1	2	3	0.02%	2.08%	HSSPHQSEDEEDPR	R	N	95.00%	4.25	0.403	0	1	2	0	2	1,729.65	651	664	TRUE	
SNU216LR_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	4.6	0.385	0	0	1	0	2	2,428.13	618	639	TRUE	
SNU216LR_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	GADNDGSGSESGYTTPK	K	K	95.00%	3.97	0.515	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	NDSWGSFDLR	R	A	95.00%	2.18	0.344	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	RTSPQVLGSILK	K	S	95.00%	3.29	0.347	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC2_03	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	3	0.02%	2.90%	DMQPLSPISVHER	R	Y	95.00%	2.37	0.32	0	1	0	0	2	1,588.72	635	647	TRUE	
SNU216LR_PC2_03	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	3	0.02%	2.90%	VKSPVSLTAHSLIGASPK	K	Q	95.00%	4.85	0.478	0	0	2	0	2	1,872.00	747	764	TRUE	
SNU216LR_PC2_03	KH-type splicing regulatory protein	IPI00479786,IPI00759502	73,805.40	100.00%	1	1	1	0.01%	1.83%	VQISPDSGGLPER	K	S	95.00%	2.34	0.41	0	1	0	0	2	1,434.66	178	190	TRUE	
SNU216LR_PC2_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	3	6	8	0.05%	6.12%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	5.95	0.498	0	0	1	1	2	4,118.93	479	519	TRUE	
SNU216LR_PC2_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	3	6	8	0.05%	6.12%	PMEEDGEEKSPSK	R	K	95.00%	3.11	0.488	0	0	1	0	2	1,542.60	373	385	TRUE	
SNU216LR_PC2_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	3	6	8	0.05%	6.12%	RPMEEDGEEKSPSK	K	K	95.00%	3.83	0.529	0	1	3	1	2	1,698.70	372	385	TRUE	
SNU216LR_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	12.10%	FALKVDSPDVKR	K	C	95.00%	2.39	0.251	0	0	1	0	2	1,454.74	484	495	TRUE	
SNU216LR_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	12.10%	GEAERGSGGSSSGDELREDDEPVK	R	K	95.00%	2.1	0.31	0	1	0	0	2	2,615.95	360	382	TRUE	
SNU216LR_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	12.10%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	3.25	0.437	0	1	1	0	2	2,322.91	616	635	TRUE	
SNU216LR_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	12.10%	GSGGSSGDELREDDEPVK	R	K	95.00%	1.69	0.308	0	1	0	0	2	2,073.71	365	382	TRUE	
SNU216LR_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	12.10%	GVMAVTAVTATAASDR	R	M	84.20%	2.09	0.186	0	1	0	0	2	1,600.74	124	139	TRUE	
SNU216LR_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	6	7	7	0.04%	12.10%	KRSEGFSMDR	R	K	95.00%	2.44	0.196	0	0	1	0	2	1,292.55	452	461	TRUE	
SNU216LR_PC2_03	Chromosome 13 open reading frame 10	IPI00166555,IPI00329545	111,147.80	99.80%	1	1	1	0.01%	1.29%	EGSTQQLQTTSPK	R	V	95.00%	2.41	0.309	0	1	0	0	2	1,484.66	607	619	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	5	0.03%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.04	0.47	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC2_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	5	0.03%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.87	0.218	0	1	1	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.71	0.434	0	3	2	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.39	0.226	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	FGFGAKSPK	K	A	94.90%	2.04	0.202	0	1	0	0	2	1,018.48	2051	2059	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	FKAEAPLPSPK	K	L	95.00%	2.49	0.22	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	GGVTGSPEASISGSK	K	G	95.00%	2.88	0.458	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	GHYEVTGSDDETGK	K	L	95.00%	2.39	0.474	0	1	1	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.41	0.456	0	1	1	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	95.00%	3.66	0.329	0	0	1	0	2	2,730.26	2905	2930	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	GKGGVTGSPEASISGSK	K	G	95.00%	3.71	0.11	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	GPAFNMASPESDFGINLK	K	G	95.00%	3.74	0.327	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	ISAPNVDFNLEGPK	R	V	95.00%	2.41	0.401	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	ISMQDVDLSLGSPK	K	L	95.00%	3.06	0.324	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	SKGHYEVTGSDDETGK	K	L	95.00%	3.31	0.469	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.19	0.101	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.61	0.121	0	1	0	0	2	2,194.92	2816	2836	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	VKTPEMIIQKPK	K	I	95.00%	3.09	0.338	0	1	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	17	24	27	0.17%	5.64%	VSVGAPDLSLEASEGSIKLPK	K	M	81.10%	2.76	0.155	0	0	1	0	2	2,177.11	2456	2476	TRUE	
SNU216LR_PC2_03	Isoform 1 of Dynamin-2	IPI00033022,IPI00181352,IP	98,024.70	100.00%	1	1	1	0.01%	4.48%	EALNIIGDISTSTVSTPVPPPVDDTWLQSASS	K	R	95.00%	7.66	0.0207	0	0	1	0	2	4,181.01	731	769	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	6	9	10	0.06%	17.90%	AASEQQADTSGGDSPK	K	D	95.00%	2.77	0.332	0	1	0	0	2	1,628.64	123	138	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	6	9	10	0.06%	17.90%	EEAPASPLRPLYPQISPLK	K	I	95.00%	2.82	0.277	0	1	1	0	2	2,266.09	45	63	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	6	9	10	0.06%	17.90%	EGSPIPHDPEFGSK	R	L	95.00%	3.12	0.39	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	6	9	10	0.06%	17.90%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	4.79	0.171	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	6	9	10	0.06%	17.90%	SAPASPTHPGLMSPR	R	S	95.00%	2.71	0.342	0	1	2	0	2	1,585.72	253	267	TRUE	
SNU216LR_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	6	9	10	0.06%	17.90%	YSQSAPGSPVSAQPVIMAVPPRPSSLVAK	R	P	95.00%	3.23	0.256	0	0	1	0	2	3,001.52	302	330	TRUE	
SNU216LR_PC2_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	2	2	2	0.01%	1.46%	ALQHTESPSETNKPHSK	K	S	95.00%	2.82	0.241	0	0	0	1	2	1,970.90	94	110	TRUE	
SNU216LR_PC2_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	2	2	2	0.01%	1.46%	SESPPAELPSLR	R	R	95.00%	1.81	0.382	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216LR_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	5	0.03%	8.45%	EESEESEAEPVQR	R	T	95.00%	2.69	0.251	0	2	0	0	2	1,598.62	194	206	TRUE	
SNU216LR_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	5	0.03%	8.45%	ESEQESEEEILAQK	K	K	95.00%	3.41	0.403	0	1	0	0	2	1,728.72	222	235	TRUE	
SNU216LR_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	5	0.03%	8.45%	EVSDSEAGGGPQGERK	R	N	95.00%	2.4	0.31	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216LR_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	5	0.03%	8.45%	SLKESEQESEEEILAQKK	K	E	95.00%	3	0.188	0	0	1	0	2	2,264.99	219	236	TRUE	
SNU216LR_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	5	5	5	0.03%	11.50%	DYLLSESEDEGDNDGER	K	K	95.00%	2.83	0.508	0	1	0	0	2	2,102.71	25	41	TRUE	
SNU216LR_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	5	5	5	0.03%	11.50%	DYLLSESEDEGDNDGERK	K	H	95.00%	3.03	0.339	0	1	0	0	2	2,230.81	25	42	TRUE	
SNU216LR_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	5	5	5	0.03%	11.50%	EAATQEDPEQLPELEAHGVSESEGEERPVAE	K	E	95.00%	5.03	0.263	0	0	0	1	2	4,195.92	386	422	TRUE	
SNU216LR_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	5	5	5	0.03%	11.50%	EQMIDLQNLLTTQSPSVK	K	S	95.00%	3.08	0.18	0	1	0	0	2	2,125.03	556	573	TRUE	
SNU216LR_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	5	5	5	0.03%	11.50%	SELSQDAEPAGSQETK	R	D	95.00%	2.91	0.291	0	1	0	0	2	1,756.73	434	449	TRUE	
SNU216LR_PC2_03	Lupus La protein	IPI00009032	46,839.00	99.80%	2	2	2	0.01%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	3.4	0.364	0	0	0	1	2	2,405.96	364	384	TRUE	
SNU216LR_PC2_03	Lupus La protein	IPI00009032	46,839.00	99.80%	2	2	2	0.01%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.27	0.371	0	0	0	1	2	2,635.11	362	384	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	1	1	2	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	6.27	0.081	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216LR_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	2	2	0.01%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	5.47	0.388	0	0	1	0	2	2,780.35	101	124	TRUE	
SNU216LR_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.80%	2	2	2	0.01%	2.28%	SPTSPLNMK	K	L	95.00%	1.71	0.36	0	1	0	0	2	1,054.46	116	124	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	3	3	0.02%	3.19%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	5.05	0.557	0	1	1	0	2	2,778.05	587	608	TRUE	
SNU216LR_PC2_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	3	3	0.02%	3.19%	TEDVMFISDNESFNPSLWEEQRK	R	Q	95.00%	3.93	0.34	0	0	1	0	2	2,881.24	433	455	TRUE	
SNU216LR_PC2_03	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	3	3	0.02%	3.86%	DGEQSPNVSLMQR	R	M	95.00%	2.52	0.304	0	1	0	0	2	1,540.65	332	344	TRUE	
SNU216LR_PC2_03	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	3	3	0.02%	3.86%	DSALQDTDDSDDDPVLIPGAR	R	Y	95.00%	3.87	0.433	0	1	1	0	2	2,374.93	668	688	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	9	0.06%	5.75%	AEPSEVDMNSPK	K	S	95.00%	2.32	0.249	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	9	0.06%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	3.76	0.366	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	9	0.06%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.98	0.513	0	1	0	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	9	0.06%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.64	0.453	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	9	0.06%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	3.81	0.31	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	9	0.06%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	3.81	0.382	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216LR_PC2_03	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	4	5	5	0.03%	6.07%	IHAESLLLDSPAVAK	R	S	95.00%	3.16	0.367	0	1	0	0	2	1,643.84	370	384	TRUE	
SNU216LR_PC2_03	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	4	5	5	0.03%	6.07%	LHSSNPNLSTLDFGEEK	R	N	95.00%	4.17	0.475	0	1	1	0	2	1,967.87	270	286	TRUE	
SNU216LR_PC2_03	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	4	5	5	0.03%	6.07%	QLMEQDASSSPSAQVIGLK	K	N	95.00%	4.07	0.403	0	1	0	0	2	2,068.96	332	350	TRUE	
SNU216LR_PC2_03	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	4	5	5	0.03%	6.07%	RIHAESLLLDSPAVAK	R	S	95.00%	3.86	0.313	0	0	1	0	2	1,799.94	369	384	TRUE	
SNU216LR_PC2_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	2	2	0.01%	4.94%	RASDDGKLTDPSK	R	T	95.00%	2.61	0.188	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216LR_PC2_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	2	2	0.01%	4.94%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.01	0.284	0	0	1	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	3.3	0.206	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	2.54	0.293	0	1	1	0	2	1,912.86	582	599	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.62	0.356	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.89	0.366	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216LR_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	QGSGRESPSLASR	R	E	95.00%	2.25	0.254	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216LR_PC2_03	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	1	1	1	0.01%	2.37%	EESDDEAAVEEEEEEKKPK	K	T	95.00%	4.43	0.405	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216LR_PC2_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	99.80%	2	2	2	0.01%	3.59%	VTPQEEADSDVGEEPDSENTPQK	K	A	95.00%	3.93	0.366	0	1	0	0	2	2,581.05	120	142	TRUE	
SNU216LR_PC2_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	99.80%	2	2	2	0.01%	3.59%	VTPQEEADSDVGEEPDSENTPQKADK	K	D	95.00%	3.99	0.14	0	0	1	0	2	2,895.21	120	145	TRUE	
SNU216LR_PC2_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	2	2	0.01%	1.48%	KVNEEKDGPISPK	K	K	95.00%	2.82	0.326	0	0	1	0	2	1,520.74	901	913	TRUE	
SNU216LR_PC2_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	2	2	0.01%	1.48%	TAFYNEDDSEEEQR	R	Q	95.00%	2.86	0.426	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216LR_PC2_03	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	4	4	0.03%	6.48%	ALSSDSILSPAPDAR	R	A	95.00%	2.29	0.332	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216LR_PC2_03	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	4	4	0.03%	6.48%	ASTPDWVSEGPQPGLR	R	R	95.00%	2.79	0.349	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216LR_PC2_03	Protein C19orf21	IPI00217121	75,355.70	100.00%	3	4	4	0.03%	6.48%	HLSESSGKPLSTK	R	Q	95.00%	2.62	0.285	0	1	1	0	2	1,450.69	469	481	TRUE	
SNU216LR_PC2_03	heterogeneous nuclear ribonucleoprotein L isofor	IPI00027834	64,132.80	100.00%	1	1	1	0.01%	1.87%	ISRPGDSDDSR	K	S	95.00%	2.25	0.37	0	1	0	0	2	1,284.52	179	189	TRUE	
SNU216LR_PC2_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	1	1	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.56	0.363	0	0	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC2_03	Transcription repressor	IPI00382733	82,672.30	100.00%	3	4	7	0.04%	5.45%	IDGATQSSPAEPK	K	S	81.00%	2.52	0.143	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216LR_PC2_03	Transcription repressor	IPI00382733	82,672.30	100.00%	3	4	7	0.04%	5.45%	KKSPVPVETLK	K	D	95.00%	2.19	0.286	0	0	1	0	2	1,305.72	523	533	TRUE	
SNU216LR_PC2_03	Transcription repressor	IPI00382733	82,672.30	100.00%	3	4	7	0.04%	5.45%	RGSGDTSISIIDTEASIR	R	E	95.00%	3.32	0.334	0	3	2	0	2	1,844.84	86	102	TRUE	
SNU216LR_PC2_03	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.90%	3	4	4	0.03%	5.95%	DNEEREQSSDLTPSGDVSPVKPLSR	K	S	89.00%	3.11	0.167	0	0	1	0	2	2,822.28	360	384	TRUE	
SNU216LR_PC2_03	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.90%	3	4	4	0.03%	5.95%	EQSSDLTPSGDVSPVKPLSR	R	S	95.00%	3.59	0.431	0	1	1	0	2	2,179.03	365	384	TRUE	
SNU216LR_PC2_03	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.90%	3	4	4	0.03%	5.95%	YGGDSDHPSDGETSVQPMMTK	K	I	90.10%	3.69	0.0179	0	1	0	0	2	2,398.86	267	287	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	2	3	3	0.02%	7.89%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.03	0.583	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	2	3	3	0.02%	7.89%	VGGVSPEEHPAPEVSTPFPPLPPEPEGGGEE	K	V	95.00%	3.55	0.359	0	0	1	0	2	3,329.53	480	511	TRUE	
SNU216LR_PC2_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	4	4	0.03%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGK	K	D	95.00%	5.17	0.44	0	0	1	0	2	3,323.24	929	957	TRUE	
SNU216LR_PC2_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	4	4	0.03%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGKE	K	-	95.00%	6.78	0.518	0	0	1	0	2	3,916.52	929	962	TRUE	
SNU216LR_PC2_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	4	4	0.03%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	-	95.00%	8.54	0.639	0	0	1	1	2	4,157.70	927	962	TRUE	
SNU216LR_PC2_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.50%	2	3	3	0.02%	9.64%	FIHQQPQSSSPVYGSSAK	R	T	90.60%	3.92	0.0006	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC2_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.50%	2	3	3	0.02%	9.64%	GLEDVRPSVESLLDELESSVPSPVPAITVNQC	R	V	95.00%	8.48	0.578	0	0	1	1	2	4,229.03	209	247	TRUE	
SNU216LR_PC2_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	99.80%	1	1	1	0.01%	0.94%	NSKSPEEHLEEMMK	K	M	95.00%	3.7	0.38	0	0	1	0	2	1,768.73	358	371	TRUE	
SNU216LR_PC2_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	2	2	2	0.01%	3.38%	QPTPPSEAAASK	K	K	95.00%	2.21	0.259	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216LR_PC2_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	2	2	2	0.01%	3.38%	TENVFVDEPLIHATTYIPLMDNADSSPVVDK	K	E	95.00%	5.25	0.225	0	0	0	1	2	3,666.74	218	249	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.75	0.443	0	0	1	0	2	1,792.91	524	539	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	5.82	0.488	0	0	1	0	2	3,607.64	74	113	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	ETESAPGSPR	K	A	92.80%	1.46	0.216	1	0	0	0	2	1,190.41	514	523	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.08	0.306	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	HSSNPPLESHVGWVMDSR	R	E	95.00%	3.91	0.506	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	KNTFTAWSDEESDYEIDDRDVNK	R	I	95.00%	4.53	0.349	0	0	1	0	2	2,857.18	620	642	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.14	0.287	0	0	2	0	2	2,405.19	130	152	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	NTFTAWSDEESDYEIDDR	K	D	94.90%	2.67	0.154	0	1	0	0	2	2,352.82	621	638	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	NTFTAWSDEESDYEIDDRDVNK	K	I	90.30%	3.68	0.105	0	0	1	0	2	2,809.06	621	642	TRUE	
SNU216LR_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	10	13	0.08%	14.70%	SLPTTVPESPNYR	R	N	95.00%	2.88	0.313	0	3	0	0	2	1,540.70	766	778	TRUE	
SNU216LR_PC2_03	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	4.22%	AGSNEDPILAPSGTPPPTIPPDETFGGR	R	V	95.00%	3.86	0.42	0	0	1	0	2	2,870.33	644	671	TRUE	
SNU216LR_PC2_03	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	4.22%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.44	0.29	0	1	0	0	2	1,606.75	478	493	TRUE	
SNU216LR_PC2_03	Novel protein	IPI00384541,IPI00639879	152,879.40	98.80%	1	1	1	0.01%	1.10%	DVEDMELSDVEDDGSK	R	I	95.00%	3.11	0.339	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216LR_PC2_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.38	0.41	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC2_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.32	0.239	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216LR_PC2_03	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	4	4	0.03%	5.00%	AASPPLKGSVSSEASELDKK	K	E	95.00%	3.63	0.243	0	0	1	0	2	2,081.02	537	556	TRUE	
SNU216LR_PC2_03	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	4	4	0.03%	5.00%	EGHETPMDIDSDDSK	K	A	95.00%	3.15	0.287	0	0	1	0	2	1,755.64	522	536	TRUE	
SNU216LR_PC2_03	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	4	4	0.03%	5.00%	LKEGHETPMDIDSDDSK	K	A	95.00%	4.05	0.431	0	1	1	0	2	1,996.82	520	536	TRUE	
SNU216LR_PC2_03	RNA binding motif protein 15B	IPI00175136	97,208.40	99.90%	2	2	2	0.01%	2.70%	DRTPPHLLYSDR	R	D	95.00%	2.89	0.31	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216LR_PC2_03	RNA binding motif protein 15B	IPI00175136	97,208.40	99.90%	2	2	2	0.01%	2.70%	TFLEGDWTSPSK	R	S	95.00%	2.67	0.383	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216LR_PC2_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	2	4	6	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.13	0.437	0	0	2	1	2	2,727.34	846	871	TRUE	
SNU216LR_PC2_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	2	4	6	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.31	0.465	0	0	2	1	2	3,113.52	846	874	TRUE	
SNU216LR_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	4.88%	ARGQGSSPVAMQK	R	A	95.00%	2.79	0.311	0	1	0	0	2	1,396.64	340	352	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	4.88%	DPSASPGDAGEQAIR	R	Q	95.00%	2.89	0.457	0	1	0	0	2	1,550.65	286	300	TRUE	
SNU216LR_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	4.88%	GQGSSPVAMQK	R	A	94.10%	1.9	0.239	0	1	0	0	2	1,169.50	342	352	TRUE	
SNU216LR_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	4.88%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	3.76	0.359	0	0	1	1	2	2,657.30	709	732	TRUE	
SNU216LR_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	4.88%	SLLDASEEAIKK	K	D	95.00%	2.08	0.4	0	1	0	0	2	1,383.68	721	732	TRUE	
SNU216LR_PC2_03	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	6.62%	VAEPGAEATSSTGEESGSEHPPAVPMHNKF	R	K	81.30%	3.13	0.184	0	0	0	1	2	3,139.38	443	472	TRUE	
SNU216LR_PC2_03	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	6.62%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.64	0.396	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216LR_PC2_03	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	5	5	0.03%	10.90%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	4.04	0.379	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216LR_PC2_03	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	5	5	0.03%	10.90%	NNSQIASGQNQPQAAAGSHQLSMGQPHI	R	R	95.00%	4.66	0.34	0	0	0	1	2	3,939.81	593	630	TRUE	
SNU216LR_PC2_03	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	5	5	0.03%	10.90%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	4.68	0.442	0	1	1	1	2	2,687.26	674	699	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein C10orf118	IPI00470582,IPI00639861	50,921.80	99.80%	1	1	1	0.01%	2.78%	SSAEDRSPENTGSSVAVDNFPQVDK	R	A	95.00%	3.38	0.285	0	0	1	0	2	2,716.17	363	387	TRUE	
SNU216LR_PC2_03	Isoform 1 of Putative splicing factor, arginine/seri	IPI00158020,IPI00554436	121,311.60	99.80%	1	1	1	0.01%	3.05%	EAELESPEVMPEEEDEDDEDGGEEAPAPGG	R	S	95.00%	3.96	0.334	0	0	1	0	2	3,510.34	882	914	TRUE	
SNU216LR_PC2_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	3	3	4	0.03%	5.62%	KVTSPLQSPTK	R	A	95.00%	2.94	0.471	0	2	0	0	2	1,265.65	900	910	TRUE	
SNU216LR_PC2_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	3	3	4	0.03%	5.62%	SMPSMGYMTHTVSAPSLHGK	R	S	95.00%	3.4	0.492	0	0	1	0	2	2,198.94	631	650	TRUE	
SNU216LR_PC2_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	100.00%	3	3	4	0.03%	5.62%	TVPLFPHPPVPSLSTSESKPPPQPSPPTSPVR	K	T	95.00%	4.2	0.263	0	0	0	1	2	3,517.72	843	874	TRUE	
SNU216LR_PC2_03	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	2	2	0.01%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	4.57	0.538	0	0	1	0	2	3,332.21	541	570	TRUE	
SNU216LR_PC2_03	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	2	2	0.01%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	5.03	0.395	0	0	0	1	2	4,263.69	541	580	TRUE	
SNU216LR_PC2_03	Isoform Beta of ATP-dependent DNA helicase Q5	IPI00185769	108,859.20	99.80%	2	2	2	0.01%	3.73%	GEVPGGSAHYGGPSPEKK	R	A	95.00%	2.27	0.297	0	1	0	0	2	1,833.82	714	731	TRUE	
SNU216LR_PC2_03	Isoform Beta of ATP-dependent DNA helicase Q5	IPI00185769	108,859.20	99.80%	2	2	2	0.01%	3.73%	YDEGSGGSGDEGRDEAHKR	R	E	95.00%	2.8	0.306	0	0	1	0	2	2,181.79	484	502	TRUE	
SNU216LR_PC2_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.03%	4.51%	GPSQEEEDNHSDEEDR	R	A	95.00%	2.97	0.416	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216LR_PC2_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.03%	4.51%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	3.41	0.201	0	0	1	0	2	2,464.94	57	77	TRUE	
SNU216LR_PC2_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.03%	4.51%	LGVSVSPSR	K	A	95.00%	2.58	0.265	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216LR_PC2_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	4	4	4	0.03%	4.51%	SQDQDSEVNELSR	K	G	95.00%	3.08	0.341	0	1	0	0	2	1,586.63	78	90	TRUE	
SNU216LR_PC2_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.65	0.317	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC2_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.92	0.257	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216LR_PC2_03	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	100.00%	3	4	4	0.03%	5.24%	GDAASSPAPAASVGSSQGGAR	R	K	95.00%	2.63	0.254	0	1	0	0	2	1,880.81	256	276	TRUE	
SNU216LR_PC2_03	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	100.00%	3	4	4	0.03%	5.24%	GGGQLDLLGVSLASLKK	R	Q	95.00%	2.78	0.218	0	0	1	0	2	1,735.94	409	425	TRUE	
SNU216LR_PC2_03	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	100.00%	3	4	4	0.03%	5.24%	VENSPQVDGSPPGLEGLLGGIGEK	R	G	95.00%	4.32	0.485	0	1	1	0	2	2,429.16	1071	1094	TRUE	
SNU216LR_PC2_03	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	ESENSGDSGYPSEK	R	R	95.00%	2.62	0.334	0	1	0	0	2	1,565.56	434	447	TRUE	
SNU216LR_PC2_03	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	KYESDEDSLGSSGR	R	V	95.00%	3.21	0.36	0	2	0	0	2	1,609.64	467	480	TRUE	
SNU216LR_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	6.32%	LGAPENSGISTLER	R	G	95.00%	2.88	0.146	0	1	0	0	2	1,523.71	14	27	TRUE	
SNU216LR_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	6.32%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.89	0.546	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	6.32%	SSSPAPEFLASSPPDNK	K	S	95.00%	3.39	0.442	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216LR_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	6.32%	VSAGEPGSHPSPAPR	K	R	95.00%	3.7	0.518	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216LR_PC2_03	Isoform 1 of GTPase-activating Rap/Ran-GAP dor	IPI00472044	231,687.40	99.80%	2	2	2	0.01%	1.90%	HFSQSEETGNEVFGALNEEQPLPR	R	S	95.00%	3.66	0.409	0	0	1	0	2	2,795.23	818	841	TRUE	
SNU216LR_PC2_03	Isoform 1 of GTPase-activating Rap/Ran-GAP dor	IPI00472044	231,687.40	99.80%	2	2	2	0.01%	1.90%	SSSTSDILEPFTVER	R	A	95.00%	2.64	0.291	0	1	0	0	2	1,747.78	842	856	TRUE	
SNU216LR_PC2_03	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	4.36	0.0313	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216LR_PC2_03	Protein LYRIC	IPI00328715	63,838.40	100.00%	3	4	4	0.03%	4.64%	SETSWESPK	K	Q	95.00%	1.84	0.299	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216LR_PC2_03	Protein LYRIC	IPI00328715	63,838.40	100.00%	3	4	4	0.03%	4.64%	SQEPIPDDQKVSDDDK	K	E	95.00%	2.31	0.229	0	1	0	0	2	1,895.79	415	430	TRUE	
SNU216LR_PC2_03	Protein LYRIC	IPI00328715	63,838.40	100.00%	3	4	4	0.03%	4.64%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	4.04	0.441	0	1	1	0	2	2,152.93	415	432	TRUE	
SNU216LR_PC2_03	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	3	3	3	0.02%	3.30%	ETAAGGLTLKEERSPQTLAPVGEDAMK	K	T	95.00%	3.95	0.308	0	0	1	0	2	2,879.39	1098	1124	TRUE	
SNU216LR_PC2_03	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	3	3	3	0.02%	3.30%	SPQTLAPVGEDAMK	R	T	92.20%	1.96	0.253	0	1	0	0	2	1,523.68	1111	1124	TRUE	
SNU216LR_PC2_03	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	3	3	3	0.02%	3.30%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	5.26	0.345	0	0	0	1	2	3,153.39	1111	1139	TRUE	
SNU216LR_PC2_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.81	0.245	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216LR_PC2_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	3.72	0.28	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216LR_PC2_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	4.91	0.0401	0	1	0	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC2_03	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	3	4	4	0.03%	5.34%	LLQETELVEPLTPSGAMPNQAQMR	R	I	95.00%	3.78	0.288	0	0	1	0	2	2,733.30	660	683	TRUE	
SNU216LR_PC2_03	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	3	4	4	0.03%	5.34%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.29	0.393	0	1	0	0	2	1,993.88	1024	1042	TRUE	
SNU216LR_PC2_03	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	3	4	4	0.03%	5.34%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.58	0.565	0	1	1	0	2	2,329.01	1043	1066	TRUE	
SNU216LR_PC2_03	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	99.80%	2	2	2	0.01%	4.92%	IQQFDDGGSDEEDIWEEK	R	H	95.00%	4.3	0.453	0	1	0	0	2	2,219.87	529	546	TRUE	
SNU216LR_PC2_03	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	99.80%	2	2	2	0.01%	4.92%	SSSGSTDSEESTDSEEEDGAK	R	Q	95.00%	3.61	0.515	0	1	0	0	2	2,213.77	558	578	TRUE	
SNU216LR_PC2_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	3	4	0.03%	4.81%	DLFDLNSSEEDDTEGFSER	K	G	95.00%	3.87	0.564	0	1	0	0	2	2,364.84	666	684	TRUE	
SNU216LR_PC2_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	3	4	0.03%	4.81%	EAARSPDKPGGSPSASR	R	R	95.00%	2.65	0.361	0	1	2	0	2	1,829.76	45	61	TRUE	
SNU216LR_PC2_03	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	1	3	4	0.03%	3.16%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	3.91	0.467	0	1	1	2	2	2,465.14	415	437	TRUE	
SNU216LR_PC2_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	4	0.03%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	3.05	0.251	0	1	1	0	2	1,684.77	414	426	TRUE	
SNU216LR_PC2_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	4	0.03%	2.38%	RSQSIEQESQEK	R	Q	95.00%	3.61	0.116	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216LR_PC2_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	4	0.03%	2.38%	SQSIEQESQEK	R	Q	95.00%	2.36	0.433	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	2	2	0.01%	3.42%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	3.67	0.302	0	1	0	0	2	2,046.92	510	526	TRUE	
SNU216LR_PC2_03	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	100.00%	2	2	2	0.01%	3.42%	KKSTSLEPVER	R	S	91.60%	2.28	0.207	0	0	1	0	2	1,353.68	370	380	TRUE	
SNU216LR_PC2_03	Acidic 82 kDa protein mRNA	IPI00290410	90,672.40	99.90%	1	2	2	0.01%	3.09%	VTPTKESYTEEIVSEAESHVSGISR	K	I	94.20%	4.82	0.0759	0	0	1	1	2	2,815.30	128	152	TRUE	
SNU216LR_PC2_03	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	100.00%	3	3	3	0.02%	4.54%	AVSPPHLDGPPSPR	K	S	95.00%	2.4	0.248	0	0	1	0	2	1,506.71	516	529	TRUE	
SNU216LR_PC2_03	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	100.00%	3	3	3	0.02%	4.54%	AVSPPHLDGPPSPRSPVIGSEVFLPNSNHVA	K	V	95.00%	4.68	0.282	0	0	0	1	2	4,300.91	516	555	TRUE	
SNU216LR_PC2_03	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	100.00%	3	3	3	0.02%	4.54%	SPVIGSEVFLPNSNHVASGAGEAEER	R	V	95.00%	3.81	0.368	0	0	1	0	2	2,733.25	530	555	TRUE	
SNU216LR_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	99.90%	2	2	2	0.01%	6.40%	KVEAPETNIDKTPK	K	K	95.00%	3.68	0.357	0	0	1	0	2	1,649.81	310	323	TRUE	
SNU216LR_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	99.90%	2	2	2	0.01%	6.40%	VESSENVPSPTHPPVVINAADDDEDDDDDQ	K	T	95.00%	4.9	0.405	0	0	1	0	2	4,208.71	141	178	TRUE	
SNU216LR_PC2_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	6	6	0.04%	7.68%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	4.7	0.477	0	0	1	0	2	3,490.40	206	235	TRUE	
SNU216LR_PC2_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	6	6	0.04%	7.68%	GTDTQTPAVLSPSK	K	T	95.00%	2.86	0.419	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216LR_PC2_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	6	6	0.04%	7.68%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	3.72	0.275	0	0	1	1	2	2,349.21	756	777	TRUE	
SNU216LR_PC2_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	6	6	0.04%	7.68%	TNKSPEAKPLPGK	K	L	95.00%	2.84	0.365	0	1	1	0	2	1,446.74	64	76	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	KPSKEMSSDSEYDSDDDR	K	T	95.00%	2.45	0.254	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	KQSFDDNDSEELEDKDSK	K	S	95.00%	3.33	0.438	0	1	0	0	2	2,288.85	105	122	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	KWDGSEEDEDNSKK	K	I	95.00%	3.38	0.314	0	0	2	0	2	1,746.69	160	173	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.59	0.534	0	2	2	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.75	0.418	0	1	1	0	2	2,080.79	106	122	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	VEMYSGSDDDDDFNK	K	L	95.00%	1.89	0.305	0	1	0	0	2	1,816.63	131	145	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	2.87	0.376	0	3	2	0	2	2,234.82	131	148	TRUE	
SNU216LR_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	8	11	17	0.11%	7.13%	WDGSEEDEDNSKK	K	I	95.00%	2.76	0.472	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	5	7	0.04%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	4.74	0.457	0	2	1	0	2	2,129.88	78	96	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	5	7	0.04%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	3.36	0.456	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	5	7	0.04%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	5.37	0.544	0	0	1	0	2	2,257.97	77	96	TRUE	
SNU216LR_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	5	7	0.04%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.65	0.408	0	0	2	0	2	3,334.52	287	318	TRUE	
SNU216LR_PC2_03	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	4	4	0.03%	6.37%	HVTSNASDSESSYR	Q	G	95.00%	2.24	0.327	0	1	0	0	1	1,619.63	703	716	TRUE	
SNU216LR_PC2_03	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	4	4	0.03%	6.37%	NKDQSEQETSDADQHVTSNASDSESSYR	K	G	80.20%	5.31	0.0343	0	0	1	0	2	3,195.26	689	716	TRUE	
SNU216LR_PC2_03	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	4	4	0.03%	6.37%	YQDEDTPPQEHISPQITNEVIGPELVHVSEK	R	N	95.00%	4.62	0.383	0	0	1	1	2	3,608.68	110	140	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	2	2	2	0.01%	2.13%	GPKPEPPGSGSPAPPR	R	R	95.00%	3.04	0.494	0	1	0	0	2	1,607.76	730	745	TRUE	
SNU216LR_PC2_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	2	2	2	0.01%	2.13%	QEPGGSHGSETEDTGR	K	S	95.00%	2.14	0.441	0	1	0	0	2	1,723.66	645	660	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	3	3	0.02%	5.96%	GPQGPGGGGINVQEILTSIMGSPNSHPSEE	K	I	95.00%	5.33	0.368	0	0	0	1	2	4,213.98	570	609	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	3	3	0.02%	5.96%	KVLSPTAAKPSPFEGK	K	T	95.00%	4.43	0.522	0	0	1	0	2	1,736.90	310	325	TRUE	
SNU216LR_PC2_03	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	3	3	3	0.02%	5.96%	VLSPTAAKPSPFEGK	K	T	95.00%	2.66	0.365	0	1	0	0	2	1,608.80	311	325	TRUE	
SNU216LR_PC2_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	4	4	0.03%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	4.49	0.575	0	1	1	0	2	2,298.08	9	31	TRUE	
SNU216LR_PC2_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	4	4	0.03%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.53	0.525	0	1	1	0	2	2,541.20	7	31	TRUE	
SNU216LR_PC2_03	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	99.80%	2	3	3	0.02%	3.98%	ADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.24	0.301	0	0	1	0	2	3,164.27	543	570	TRUE	
SNU216LR_PC2_03	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	99.80%	2	3	3	0.02%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.37	0.349	0	0	1	1	2	3,320.37	542	570	TRUE	
SNU216LR_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	4	5	0.03%	4.30%	AAKPGPAEAPSPTASPSGDASPPATAPYDPI	R	V	92.90%	4.4	0.0857	0	0	1	0	2	3,171.31	1094	1124	TRUE	
SNU216LR_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	4	5	0.03%	4.30%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.48	0.392	0	0	2	1	2	2,672.22	157	179	TRUE	
SNU216LR_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	4	5	0.03%	4.30%	YREYSPPYAPSHQQYPPSHATPLPK	K	K	85.90%	5.36	0.0341	0	0	0	1	2	2,991.38	155	179	TRUE	
SNU216LR_PC2_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.80%	2	2	2	0.01%	7.56%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	95.00%	5.41	0.0776	0	0	1	0	2	2,903.48	310	336	TRUE	
SNU216LR_PC2_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.80%	2	2	2	0.01%	7.56%	VKEEPPSPPQSPR	R	V	95.00%	3.08	0.41	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216LR_PC2_03	Histone deacetylase 2	IPI00289601	55,365.50	99.80%	1	2	4	0.03%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	5.52	0.448	0	0	1	3	2	3,665.55	373	405	TRUE	
SNU216LR_PC2_03	triple functional domain	IPI00657953	346,902.60	99.90%	1	1	1	0.01%	0.65%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	2.9	0.202	0	0	1	0	2	1,983.92	2451	2470	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	6	6	0.04%	7.25%	LNDPFQPFPGNDSPK	K	E	95.00%	2.91	0.273	0	1	0	0	2	1,752.76	668	682	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	6	6	0.04%	7.25%	NIIGSSPVADFSAIK	K	E	91.80%	2.52	0.154	0	1	0	0	2	1,598.78	319	333	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	6	6	0.04%	7.25%	SINKLDSPDPFK	R	L	95.00%	3.38	0.33	0	1	0	0	2	1,440.68	656	667	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	6	6	0.04%	7.25%	SINKLDSPDPFKLNDPFQPFPGNDSPK	R	E	95.00%	3.75	0.18	0	0	1	0	2	3,174.42	656	682	TRUE	
SNU216LR_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	6	6	0.04%	7.25%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	4.13	0.298	0	1	1	0	2	2,483.14	428	450	TRUE	
SNU216LR_PC2_03	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.90%	2	2	2	0.01%	3.72%	APSHMSSSHSFPQLAR	R	N	95.00%	2.6	0.2	0	0	1	0	2	1,819.79	174	189	TRUE	
SNU216LR_PC2_03	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.90%	2	2	2	0.01%	3.72%	ARGSPHFQHAEVR	R	I	95.00%	2.82	0.343	0	0	1	0	2	1,571.72	233	245	TRUE	
SNU216LR_PC2_03	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	2	2	2	0.01%	2.91%	GGDSIGETPTPGASKR	R	K	95.00%	2.66	0.434	0	1	0	0	2	1,689.69	319	334	TRUE	
SNU216LR_PC2_03	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	2	2	2	0.01%	2.91%	SRWDETPASQMGGSTPVLTPGK	K	T	95.00%	4.25	0.433	0	0	1	0	2	2,382.08	336	357	TRUE	
SNU216LR_PC2_03	zinc finger RNA binding protein	IPI00333858	117,011.80	99.90%	1	1	1	0.01%	1.30%	RDSDGVDGFEAEGK	R	K	95.00%	3.71	0.471	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216LR_PC3_03	Poly(rC)-binding protein 1	IPI00016610	37,498.20	100.00%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	3.9	0.29	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216LR_PC3_03	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	4	5	0.03%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYK	R	E	95.00%	3.61	0.519	0	0	1	0	2	2,743.07	430	453	TRUE	
SNU216LR_PC3_03	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	4	5	0.03%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYKEAK	R	A	95.00%	4.21	0.203	0	1	1	2	2	3,071.25	430	456	TRUE	
SNU216LR_PC3_03	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	98.60%	1	1	1	0.01%	1.05%	KVSPIKINLK	R	N	95.00%	2.79	0.397	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216LR_PC3_03	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	2	0.01%	3.79%	KPSPQPSSPR	K	Q	88.40%	1.67	0.28	0	1	0	0	2	1,160.55	322	331	TRUE	
SNU216LR_PC3_03	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	2	0.01%	3.79%	RAVVVSPKEENK	K	A	92.00%	2.52	0.19	0	1	0	0	2	1,435.73	335	346	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	5.05	0.435	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	IESDVQEPTEPEDDLDIMLGNK	K	K	93.00%	2.68	0.193	0	0	1	0	2	2,567.11	103	124	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	KKDASDDLDDLNFFNQK	R	K	83.90%	2.84	0.16	0	0	1	0	2	2,092.92	63	79	TRUE	
SNU216LR_PC3_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	2.9	0.224	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216LR_PC3_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.21	0.233	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216LR_PC3_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.13%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	5.28	0.305	0	0	1	0	2	2,373.03	234	253	TRUE	
SNU216LR_PC3_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.13%	DNSPEPNDPEEPQEVSSTPSDK	R	K	95.00%	3.21	0.345	0	1	0	0	2	2,477.98	254	275	TRUE	
SNU216LR_PC3_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.13%	DNSPEPNDPEEPQEVSSTPSDKK	R	G	95.00%	4.08	0.421	0	0	1	0	2	2,606.08	254	276	TRUE	
SNU216LR_PC3_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	4	4	0.02%	8.13%	VTQGAASPGHGIQEK	R	L	95.00%	2.36	0.303	0	1	0	0	2	1,559.72	374	388	TRUE	
SNU216LR_PC3_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.36	0.372	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216LR_PC3_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	KRVSVELTNSLFK	R	H	95.00%	2.9	0.265	0	1	1	0	2	1,600.85	660	672	TRUE	
SNU216LR_PC3_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	5	5	0.03%	3.63%	RVSVELTNSLFK	K	H	95.00%	2.68	0.188	0	1	1	0	2	1,472.75	661	672	TRUE	
SNU216LR_PC3_03	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	3	6	0.04%	3.66%	KTGSPGSPGAGGVQSTAK	K	K	95.00%	3.21	0.462	0	2	2	0	2	1,746.75	440	457	TRUE	
SNU216LR_PC3_03	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	3	6	0.04%	3.66%	TGSPGSPGAGGVQSTAK	K	K	95.00%	2.96	0.309	0	2	0	0	2	1,618.65	441	457	TRUE	
SNU216LR_PC3_03	Histone deacetylase 2	IPI00289601	55,365.50	100.00%	1	2	8	0.05%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	6.22	0.577	0	0	3	5	2	3,681.55	373	405	TRUE	
SNU216LR_PC3_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	7	7	0.04%	6.60%	EDTDHEEKASNEDVTK	K	A	95.00%	3.01	0.345	0	0	1	0	2	1,926.76	120	135	TRUE	
SNU216LR_PC3_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	7	7	0.04%	6.60%	ETSVSKEDTDHEEK	K	A	95.00%	3.36	0.359	0	1	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC3_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	7	7	0.04%	6.60%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.98	0.287	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216LR_PC3_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	7	7	0.04%	6.60%	QSNASSDVEVEEK	K	E	95.00%	2.93	0.32	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216LR_PC3_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	7	7	0.04%	6.60%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	4.09	0.311	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	6	7	8	0.05%	15.30%	DTSATSQSVNGSPQAEQPSLESTSK	K	E	95.00%	3.82	0.101	0	1	0	0	2	2,616.13	51	75	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	6	7	8	0.05%	15.30%	LPLVPESPRR	R	M	95.00%	2.16	0.25	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	6	7	8	0.05%	15.30%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	3.41	0.439	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	6	7	8	0.05%	15.30%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.1	0.508	0	2	0	0	2	2,024.94	381	399	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	6	7	8	0.05%	15.30%	SQDATFSPGSEQAEK	R	S	95.00%	3.39	0.323	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	6	7	8	0.05%	15.30%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	4.52	0.57	0	1	1	0	2	2,455.11	329	351	TRUE	
SNU216LR_PC3_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	99.80%	1	1	1	0.01%	1.68%	LPEASQSPLVLK	R	Q	95.00%	2.86	0.367	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216LR_PC3_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	2	2	3	0.02%	1.94%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.92	0.425	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216LR_PC3_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	2	2	3	0.02%	1.94%	TAQVPSPPR	R	G	95.00%	2.28	0.326	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216LR_PC3_03	Isoform 1 of Vang-like protein 1	IPI00031195,IPI00386349	59,977.00	100.00%	2	2	2	0.01%	3.44%	RDSSHNELYYEEAEHER	R	R	95.00%	3.8	0.343	0	0	0	1	2	2,243.90	336	352	TRUE	
SNU216LR_PC3_03	Isoform 1 of Vang-like protein 1	IPI00031195,IPI00386349	59,977.00	100.00%	2	2	2	0.01%	3.44%	RRDSSHNELYYEEAEHER	R	R	95.00%	4.07	0.338	0	0	0	1	2	2,400.00	335	352	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	7	7	0.04%	26.40%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	85.10%	5	0.0496	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	7	7	0.04%	26.40%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.16	0.514	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216LR_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	7	7	0.04%	26.40%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.75	0.497	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	7	7	0.04%	26.40%	QPPPLAPQSPQGGVMGGSNSNQQQQMR	K	L	95.00%	6.57	0.523	0	0	1	0	2	2,899.30	243	269	TRUE	
SNU216LR_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	7	7	0.04%	26.40%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	2.85	0.155	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216LR_PC3_03	Probable ATP-dependent RNA helicase DDX41	IPI00007208	69,839.70	99.80%	1	1	1	0.01%	4.50%	TDEVPAGGSRSEAEDEDDEDYVPYVPLR	R	Q	95.00%	3.27	0.313	0	0	1	0	2	3,190.34	13	40	TRUE	
SNU216LR_PC3_03	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	3.39%	KASPEPPDSAEGALK	R	L	95.00%	2.99	0.392	0	0	1	0	2	1,576.73	545	559	TRUE	
SNU216LR_PC3_03	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	3.39%	RPGSVSSTDQER	K	E	95.00%	2.28	0.37	0	1	0	0	2	1,398.60	331	342	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	5.64	0.631	0	0	1	0	2	3,222.36	68	95	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.1	0.566	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216LR_PC3_03	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	4	7	0.04%	6.29%	KTSSDDESEEEDEDDLLQR	R	T	79.80%	3.47	0.0171	0	1	0	0	2	2,270.82	203	220	TRUE	
SNU216LR_PC3_03	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	4	7	0.04%	6.29%	TSSDDESEEEDEDDLLQR	K	T	91.50%	3.95	0.0118	0	1	0	0	2	2,142.73	204	220	TRUE	
SNU216LR_PC3_03	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	4	7	0.04%	6.29%	VQEHEDSGDSEVENEAK	R	G	95.00%	4.24	0.513	0	4	1	0	2	2,061.73	115	131	TRUE	
SNU216LR_PC3_03	Heterogeneous nuclear ribonucleoprotein R	IPI00012074	70,943.90	100.00%	2	2	2	0.01%	6.95%	EEEEPMDTSSVTHTEHYKTLIEAGLPQK	K	V	95.00%	3.95	0.149	0	0	0	1	2	3,439.41	14	41	TRUE	
SNU216LR_PC3_03	Heterogeneous nuclear ribonucleoprotein R	IPI00012074	70,943.90	100.00%	2	2	2	0.01%	6.95%	QGSKVQESTKGPDEAK	K	I	95.00%	2.61	0.375	0	0	1	0	2	1,768.81	111	126	TRUE	
SNU216LR_PC3_03	Something about silencing protein 10	IPI00006900	54,559.20	99.80%	1	1	1	0.01%	7.52%	AGPTLTDENGDDLGLPPSPGDTSYYQDQVI	K	S	95.00%	6.42	0.156	0	0	1	0	2	3,972.67	20	55	TRUE	
SNU216LR_PC3_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	2	2	0.01%	3.92%	AHAWPSPYK	R	D	91.50%	1.87	0.253	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216LR_PC3_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	2	2	0.01%	3.92%	AHAWPSPYKDYEVK	R	K	95.00%	3.2	0.351	0	1	0	0	2	1,770.79	340	353	TRUE	
SNU216LR_PC3_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	99.30%	2	2	2	0.01%	2.41%	GSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	4.17	0.429	0	0	1	0	2	2,913.40	275	302	TRUE	
SNU216LR_PC3_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	99.30%	2	2	2	0.01%	2.41%	LDSTQVGDFLGDSAR	R	F	86.10%	2.25	0.179	0	1	0	0	2	1,660.72	688	702	TRUE	
SNU216LR_PC3_03	Hsc70-interacting protein	IPI00032826	41,332.40	100.00%	1	1	1	0.01%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	4.32	0.294	0	0	1	0	2	2,665.11	64	85	TRUE	
SNU216LR_PC3_03	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.70%	1	1	1	0.01%	1.67%	EKPDSDDDLDIASLVTAK	R	L	95.00%	3.91	0.508	0	1	0	0	2	2,011.91	655	672	TRUE	
SNU216LR_PC3_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	4	4	0.02%	10.70%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.82	0.493	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC3_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	4	4	0.02%	10.70%	QSSPSGSEQLVR	R	R	95.00%	2.71	0.466	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC3_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	4	4	0.02%	10.70%	STGSPTQETQAPFIAK	K	R	95.00%	2.51	0.346	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC3_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	3	3	0.02%	6.80%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	5.91	0.47	0	0	1	0	2	3,188.48	642	669	TRUE	
SNU216LR_PC3_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	3	3	0.02%	6.80%	RSDSASSEPVGIYQGFEK	R	K	95.00%	3.32	0.349	0	0	1	0	2	2,036.90	301	318	TRUE	
SNU216LR_PC3_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	3	3	0.02%	6.80%	SDSASSEPVGIYQGFEK	R	K	95.00%	3.02	0.352	0	0	1	0	2	1,880.80	302	318	TRUE	
SNU216LR_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	6	8	8	0.05%	6.60%	ERSPALKSPLQSVVVR	R	R	95.00%	3.38	0.357	0	1	1	0	2	1,925.96	246	261	TRUE	
SNU216LR_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	6	8	8	0.05%	6.60%	HGLAHDEMKSPR	K	E	95.00%	2.03	0.327	0	1	1	0	2	1,457.64	689	700	TRUE	
SNU216LR_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	6	8	8	0.05%	6.60%	HGLAHDEMKSPREPGYK	K	A	95.00%	2.6	0.225	0	0	0	1	2	2,031.91	689	705	TRUE	
SNU216LR_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	6	8	8	0.05%	6.60%	IDISPSTFR	R	K	94.10%	1.89	0.234	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216LR_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	6	8	8	0.05%	6.60%	KSPVGKSPPSTGSTYGSSQK	K	E	95.00%	4.36	0.364	0	0	1	0	2	2,059.97	314	333	TRUE	
SNU216LR_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	6	8	8	0.05%	6.60%	RIDISPSTFR	R	K	83.80%	1.98	0.222	0	0	1	0	2	1,271.61	678	687	TRUE	
SNU216LR_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	5	8	8	0.05%	12.30%	AGAAAGDSDEESRADDK	R	G	95.00%	4.09	0.498	0	1	1	0	2	1,744.67	330	346	TRUE	
SNU216LR_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	5	8	8	0.05%	12.30%	AGAAAGDSDEESRADDKGVMDYYLK	R	Y	95.00%	3.39	0.27	0	0	0	1	2	2,714.13	330	354	TRUE	
SNU216LR_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	5	8	8	0.05%	12.30%	GGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	5.56	0.577	0	1	1	0	2	2,410.07	505	530	TRUE	
SNU216LR_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	5	8	8	0.05%	12.30%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	4.53	0.431	0	1	1	0	2	2,210.89	537	555	TRUE	
SNU216LR_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	5	8	8	0.05%	12.30%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	5.37	0.321	0	0	1	0	2	2,665.24	503	530	TRUE	
SNU216LR_PC3_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.90%	2	2	3	0.02%	2.01%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.31	0.451	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216LR_PC3_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.90%	2	2	3	0.02%	2.01%	SPSFGDPQLSPEARPR	R	C	95.00%	2.65	0.359	0	2	0	0	2	1,900.80	261	276	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	3	4	4	0.02%	4.02%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.58	0.457	0	1	0	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	3	4	4	0.02%	4.02%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.6	0.375	0	1	1	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	3	4	4	0.02%	4.02%	WDGSEEDEDNSKK	K	I	95.00%	2.26	0.313	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216LR_PC3_03	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	99.80%	2	4	5	0.03%	4.03%	TPESQPDTPPGTPLVSQDEK	R	R	95.00%	3.26	0.325	0	1	1	0	2	2,202.98	111	130	TRUE	
SNU216LR_PC3_03	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	99.80%	2	4	5	0.03%	4.03%	TPESQPDTPPGTPLVSQDEKR	R	D	95.00%	4.56	0.216	0	1	2	0	2	2,359.08	111	131	TRUE	
SNU216LR_PC3_03	WDR79 protein	IPI00306087	59,310.10	100.00%	3	3	3	0.02%	10.40%	GDPPRLSPDPVAGSAVSQELR	R	E	95.00%	4.43	0.304	0	0	1	0	2	2,228.07	48	68	TRUE	
SNU216LR_PC3_03	WDR79 protein	IPI00306087	59,310.10	100.00%	3	3	3	0.02%	10.40%	NADSELMPPPPERGDPPRLSPDPVAGSAVS	K	E	95.00%	4.14	0.274	0	0	0	1	2	3,661.73	35	68	TRUE	
SNU216LR_PC3_03	WDR79 protein	IPI00306087	59,310.10	100.00%	3	3	3	0.02%	10.40%	VFPEPTESGDEGEELGLPLLSTR	R	H	95.00%	3.59	0.27	0	0	1	0	2	2,552.18	484	506	TRUE	
SNU216LR_PC3_03	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	3	3	3	0.02%	9.24%	LFGGFNSSDTVTSPQR	K	A	95.00%	3.35	0.356	0	1	0	0	2	1,792.79	62	77	TRUE	
SNU216LR_PC3_03	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	3	3	3	0.02%	9.24%	RRSLEPAENVHGAGGGAFPASQTPSK	R	P	95.00%	4.92	0.444	0	0	1	0	2	2,701.28	14	39	TRUE	
SNU216LR_PC3_03	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	3	3	3	0.02%	9.24%	SLEPAENVHGAGGGAFPASQTPSKPASADC	R	G	95.00%	4.57	0.348	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216LR_PC3_03	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	3	3	0.02%	3.70%	KARVGGSDEEASGIPSR	K	T	95.00%	3.03	0.244	0	1	0	0	2	1,795.83	353	369	TRUE	
SNU216LR_PC3_03	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	3	3	0.02%	3.70%	VGGSDEEASGIPSR	R	T	95.00%	2.52	0.413	1	1	0	0	2	1,440.60	356	369	TRUE	
SNU216LR_PC3_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	2	3	3	0.02%	4.84%	KKSSSDPGIPGGPQAIPATNSPDHSDHTLSV	R	T	95.00%	5.43	0.314	0	0	0	1	2	4,320.98	359	401	TRUE	
SNU216LR_PC3_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	2	3	3	0.02%	4.84%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.25	0.619	0	1	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC3_03	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	2	2	0.01%	6.85%	AGGASPAASSTAQPPTQHR	R	L	95.00%	3.33	0.501	0	1	0	0	2	1,871.84	449	467	TRUE	
SNU216LR_PC3_03	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	2	2	0.01%	6.85%	NVAEALGHSPKDPGGGGGPVR	K	A	95.00%	2.86	0.377	0	0	1	0	2	2,051.97	428	448	TRUE	
SNU216LR_PC3_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	1	2	3	0.02%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	5.01	0.555	0	1	2	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC3_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	3	3	3	0.02%	3.05%	DGQDAIAQSPEK	K	E	95.00%	2.89	0.225	0	1	0	0	2	1,338.56	281	292	TRUE	
SNU216LR_PC3_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	3	3	3	0.02%	3.05%	DGQDAIAQSPEKESK	K	D	95.00%	3.53	0.377	0	1	0	0	2	1,682.73	281	295	TRUE	
SNU216LR_PC3_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	3	3	3	0.02%	3.05%	ISSKSPGHMVILDQTK	R	G	95.00%	3.37	0.407	0	0	1	0	2	1,820.90	549	564	TRUE	
SNU216LR_PC3_03	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	3	3	0.02%	3.84%	TEDGDWEWSDDEMDEK	K	S	95.00%	2.84	0.393	0	1	0	0	2	2,066.68	379	394	TRUE	
SNU216LR_PC3_03	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	3	3	0.02%	3.84%	TEDGDWEWSDDEMDEKSEEGK	K	A	95.00%	4.18	0.6	0	1	1	0	2	2,596.92	379	399	TRUE	
SNU216LR_PC3_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.30%	1	2	3	0.02%	2.46%	VKEEPPSPPQSPR	R	V	95.00%	3.14	0.394	0	2	1	0	2	1,607.69	297	309	TRUE	
SNU216LR_PC3_03	Isoform 1 of Beta-catenin-like protein 1	IPI00411636,IPI00513797	65,175.20	100.00%	1	1	1	0.01%	2.66%	EYAENIGDGRSPEFR	K	E	95.00%	2.65	0.183	0	1	0	0	2	1,819.76	535	549	TRUE	
SNU216LR_PC3_03	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.80%	2	2	2	0.01%	3.56%	ALPNNTSSSPQPK	R	K	95.00%	2.33	0.299	0	1	0	0	2	1,420.65	307	319	TRUE	
SNU216LR_PC3_03	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.80%	2	2	2	0.01%	3.56%	RALPNNTSSSPQPK	K	K	95.00%	3.01	0.38	0	1	0	0	2	1,576.75	306	319	TRUE	
SNU216LR_PC3_03	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	1	1	1	0.01%	3.21%	NVSSFPDDATSPLQENR	R	N	95.00%	4.16	0.462	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216LR_PC3_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	99.80%	2	2	2	0.01%	1.39%	GLPSPYNMSSAPGSR	K	S	95.00%	2.42	0.269	0	1	0	0	2	1,600.68	2812	2826	TRUE	
SNU216LR_PC3_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	99.80%	2	2	2	0.01%	1.39%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.37	0.0129	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216LR_PC3_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	3	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.31	0.328	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC3_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	3	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.29	0.328	0	0	2	0	2	1,694.76	90	103	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	ERBB receptor feedback inhibitor 1	IPI00004399	50,561.20	99.80%	2	2	2	0.01%	7.36%	RWSAEVTSSTYSDEDRPPK	R	V	95.00%	4.07	0.343	0	0	1	0	2	2,291.00	300	318	TRUE	
SNU216LR_PC3_03	ERBB receptor feedback inhibitor 1	IPI00004399	50,561.20	99.80%	2	2	2	0.01%	7.36%	SHSGPAGSFNKPAIR	R	I	95.00%	2.59	0.372	0	1	0	0	2	1,605.75	249	263	TRUE	
SNU216LR_PC3_03	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	8	0.05%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.55	0.463	0	2	3	0	2	1,593.72	221	235	TRUE	
SNU216LR_PC3_03	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	8	0.05%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.5	0.344	0	1	2	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC3_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	4	0.02%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	3.34	0.318	0	1	1	0	2	1,666.81	31	44	TRUE	
SNU216LR_PC3_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	4	0.02%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.45	0.351	0	0	2	0	2	1,911.83	45	62	TRUE	
SNU216LR_PC3_03	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	99.80%	1	1	1	0.01%	7.12%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	3.6	0.453	0	0	1	0	2	2,307.02	146	166	TRUE	
SNU216LR_PC3_03	Isoform 1 of MAGUK p55 subfamily member 5	IPI00174976	77,310.40	99.10%	1	1	1	0.01%	1.78%	NVDLASPEEHQK	K	H	82.00%	2.18	0.158	0	1	0	0	2	1,446.63	20	31	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	12	0.07%	28.60%	AGLGSPERPPKTSPGSPR	R	L	95.00%	2.51	0.277	0	2	0	0	2	1,950.88	54	71	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	12	0.07%	28.60%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	2.66	0.332	0	1	0	0	2	2,635.20	31	53	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	12	0.07%	28.60%	LGGLRPESPESLTSVSR	R	T	95.00%	3.38	0.407	0	1	1	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	12	0.07%	28.60%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	6	0.58	0	2	2	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	12	0.07%	28.60%	QPEYSPESPR	R	C	80.00%	1.91	0.257	0	1	0	0	2	1,269.51	106	115	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	12	0.07%	28.60%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	3.19	0.367	0	1	0	0	2	2,681.14	95	115	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	7	9	12	0.07%	28.60%	RALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.33	0.302	0	0	0	1	2	2,791.30	30	53	TRUE	
SNU216LR_PC3_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	3	4	4	0.02%	8.32%	DLTHSDSESSLHMSDR	R	Q	95.00%	2.95	0.29	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216LR_PC3_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	3	4	4	0.02%	8.32%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	4.1	0.316	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216LR_PC3_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	3	4	4	0.02%	8.32%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	4.55	0.0112	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216LR_PC3_03	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.23	0.395	0	1	0	0	2	1,872.96	270	286	TRUE	
SNU216LR_PC3_03	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	SASSDTSEELNSQDSPPK	R	Q	95.00%	4.31	0.0146	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216LR_PC3_03	SAMD4A protein	IPI00744767	79,415.70	99.80%	2	2	2	0.01%	4.46%	AYSSPSTTPEAR	K	R	95.00%	2.07	0.247	0	1	0	0	2	1,346.56	417	428	TRUE	
SNU216LR_PC3_03	SAMD4A protein	IPI00744767	79,415.70	99.80%	2	2	2	0.01%	4.46%	GFGQSNSLPTAGSVGGGMGR	R	R	95.00%	2.74	0.275	0	1	0	0	2	1,916.83	574	593	TRUE	
SNU216LR_PC3_03	Pre-mRNA-splicing factor PRP17	IPI00026307	65,522.00	99.80%	1	1	1	0.01%	6.04%	SPSSKPSLAVAVDSAPEVAVKEDLETGVHLD	K	E	95.00%	5.51	0.393	0	0	0	1	2	3,622.83	43	77	TRUE	
SNU216LR_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	3	4	4	0.02%	5.22%	EESEESEAEPVQR	R	T	95.00%	2.71	0.222	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216LR_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	3	4	4	0.02%	5.22%	EVSDSEAGGGPQGER	R	K	95.00%	3.37	0.523	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216LR_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	3	4	4	0.02%	5.22%	EVSDSEAGGGPQGERK	R	N	95.00%	3.15	0.486	0	1	1	0	2	1,682.70	368	383	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	AATSGVPSIYAPSTYAHLSPAK	K	T	95.00%	3.71	0.433	0	1	1	0	2	2,269.09	295	316	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.13	0.586	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	GPALTPIRDEEWGGHSPR	R	S	95.00%	3.07	0.272	0	0	1	0	2	2,054.94	430	447	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	GPALTPIRDEEWGGHSPRSPR	R	G	95.00%	3.15	0.389	0	0	1	0	2	2,395.13	430	450	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	SRDDLYDQDDSR	R	D	95.00%	2.61	0.281	0	1	0	0	2	1,564.59	511	522	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	SRSRDDLYDQDDSR	R	D	95.00%	3.2	0.379	0	1	1	0	2	1,807.72	509	522	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	SSSAGGQGSYVPLLR	R	D	95.00%	2.87	0.351	0	1	0	0	2	1,558.73	344	358	TRUE	
SNU216LR_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	8	11	11	0.07%	14.30%	SVDALDDLTPPSTAESGSR	R	S	95.00%	4.57	0.107	0	1	0	0	2	1,997.87	474	492	TRUE	
SNU216LR_PC3_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	99.80%	2	2	2	0.01%	3.85%	SPPETAAPVEDMAR	R	R	95.00%	2.6	0.282	0	1	0	0	2	1,550.66	550	563	TRUE	
SNU216LR_PC3_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	99.80%	2	2	2	0.01%	3.85%	TESEVPPRPASPK	R	V	95.00%	2.69	0.36	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216LR_PC3_03	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	2	3	3	0.02%	2.96%	VNLEESSGVENSPAGAR	R	P	95.00%	4.04	0.394	0	1	0	0	2	1,795.79	291	307	TRUE	
SNU216LR_PC3_03	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	2	3	3	0.02%	2.96%	VNLEESSGVENSPAGARPK	R	R	95.00%	4.13	0.389	0	1	1	0	2	2,020.93	291	309	TRUE	
SNU216LR_PC3_03	Glutamate-rich protein 1	IPI00329142	48,984.70	100.00%	3	3	3	0.02%	9.03%	ARQEEGADASEEDPTPAGEEDVKDAR	R	E	95.00%	4.41	0.362	0	0	1	0	2	2,852.19	245	270	TRUE	
SNU216LR_PC3_03	Glutamate-rich protein 1	IPI00329142	48,984.70	100.00%	3	3	3	0.02%	9.03%	EEDGADASEEDLTR	R	A	95.00%	2.67	0.344	0	1	0	0	2	1,616.60	231	244	TRUE	
SNU216LR_PC3_03	Glutamate-rich protein 1	IPI00329142	48,984.70	100.00%	3	3	3	0.02%	9.03%	QEEGADASEEDPTPAGEEDVKDAR	R	E	95.00%	3.99	0.445	0	0	1	0	2	2,625.05	247	270	TRUE	
SNU216LR_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	6	6	10	0.06%	11.00%	AAESETPGKSPEK	K	K	95.00%	2.92	0.246	0	0	1	0	2	1,410.62	418	430	TRUE	
SNU216LR_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	6	6	10	0.06%	11.00%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.3	0.466	0	2	0	0	2	1,919.90	357	373	TRUE	
SNU216LR_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	6	6	10	0.06%	11.00%	ATNESEDEIPQLVPIGKK	K	T	95.00%	3.26	0.451	0	1	0	0	2	2,048.00	357	374	TRUE	
SNU216LR_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	6	6	10	0.06%	11.00%	KALPASETPK	K	A	80.20%	2.29	0.137	0	1	0	0	2	1,121.56	408	417	TRUE	
SNU216LR_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	6	6	10	0.06%	11.00%	KSPAKSPNPSTPR	K	G	95.00%	2.55	0.482	0	3	0	0	2	1,446.71	391	403	TRUE	
SNU216LR_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	6	6	10	0.06%	11.00%	SPAKSPNPSTPR	K	G	95.00%	1.96	0.353	0	2	0	0	2	1,318.62	392	403	TRUE	
SNU216LR_PC3_03	Lamin-B1	IPI00217975	66,278.40	100.00%	2	2	2	0.01%	7.18%	AGGPTTPLSPTR	R	L	94.50%	2.43	0.17	0	1	0	0	2	1,234.58	14	25	TRUE	
SNU216LR_PC3_03	Lamin-B1	IPI00217975	66,278.40	100.00%	2	2	2	0.01%	7.18%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	4.71	0.436	0	0	1	0	2	3,491.54	547	576	TRUE	
SNU216LR_PC3_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	4	4	0.02%	4.93%	HRPSPPATPPPK	R	T	95.00%	2.41	0.309	0	1	1	0	2	1,441.64	394	405	TRUE	
SNU216LR_PC3_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	4	4	0.02%	4.93%	KETESEAEDNLDDLEK	K	H	95.00%	3.54	0.312	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC3_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	4	4	0.02%	4.93%	VPKPEPIPEPKEPSPEK	K	N	95.00%	4.23	0.426	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216LR_PC3_03	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	18.80%	ATSRGSNSGMDSNIDLTIVEDEEEESVALEQ	K	V	91.90%	6.76	0.0164	0	0	1	0	2	3,732.64	359	392	TRUE	
SNU216LR_PC3_03	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	18.80%	GSNSGMDSNIDLTIVEDEEEESVALEQAQK	R	V	95.00%	4.75	0.331	0	0	1	0	2	3,317.43	363	392	TRUE	
SNU216LR_PC3_03	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	18.80%	SSPFKVSPLTFGR	K	K	89.80%	2.68	0.17	0	0	1	0	2	1,582.71	287	299	TRUE	
SNU216LR_PC3_03	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	4	4	4	0.02%	18.80%	VRYEGSYALTSEEAERSDGDPVQPAVLQVH	K	-	95.00%	3.73	0.247	0	0	0	1	2	3,698.70	393	425	TRUE	
SNU216LR_PC3_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.67	0.546	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216LR_PC3_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	2	3	3	0.02%	5.91%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	3.92	0.437	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216LR_PC3_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	2	3	3	0.02%	5.91%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	2.93	0.315	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216LR_PC3_03	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.80%	2	4	4	0.02%	8.96%	IAAPELHKGDSDSEEDEPTK	K	K	95.00%	3	0.32	0	1	1	0	2	2,327.93	147	166	TRUE	
SNU216LR_PC3_03	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.80%	2	4	4	0.02%	8.96%	QITQEEDDSDEEVAPENFFSLPEK	K	A	95.00%	4.6	0.477	0	1	1	0	2	2,876.20	259	282	TRUE	
SNU216LR_PC3_03	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	1	1	1	0.01%	5.04%	NHSDSSTSESEVSSVSPLKNK	K	H	95.00%	5.27	0.482	0	0	1	0	2	2,299.01	211	231	TRUE	
SNU216LR_PC3_03	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	1	1	1	0.01%	5.04%	LSLEGDHSTPPSAYGSVK	K	A	95.00%	3.43	0.298	0	0	1	0	2	1,924.87	29	46	TRUE	
SNU216LR_PC3_03	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	AGVGQSWKENSPLNVS	K	-	95.00%	3.09	0.39	0	1	0	0	2	1,752.80	280	295	TRUE	
SNU216LR_PC3_03	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	2.62	0.386	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216LR_PC3_03	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	4	4	0.02%	5.39%	EKLQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.12	0.554	0	1	1	0	2	2,919.15	41	67	TRUE	
SNU216LR_PC3_03	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	4	4	0.02%	5.39%	LQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.49	0.61	0	1	1	0	2	2,662.01	43	67	TRUE	
SNU216LR_PC3_03	Plastin-2	IPI00010471	70,160.90	100.00%	2	2	3	0.02%	3.51%	EGESLEDLMK	R	L	95.00%	1.96	0.249	0	1	0	0	2	1,230.50	253	262	TRUE	
SNU216LR_PC3_03	Plastin-2	IPI00010471	70,160.90	100.00%	2	2	3	0.02%	3.51%	GSVSDEEMMELR	R	E	95.00%	2.84	0.415	0	2	0	0	2	1,462.56	3	14	TRUE	
SNU216LR_PC3_03	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	99.80%	1	1	1	0.01%	3.99%	KVTFFEPGSGDENGTSNKEDEFR	R	M	95.00%	3.81	0.243	0	0	1	0	2	2,670.14	301	323	TRUE	
SNU216LR_PC3_03	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	3	3	0.02%	5.65%	AGGSPASYHGSTSPR	K	V	95.00%	2.94	0.307	0	1	1	0	2	1,511.63	189	203	TRUE	
SNU216LR_PC3_03	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	3	3	0.02%	5.65%	GSSQPNLSTSHSEQEYGK	R	A	95.00%	3.63	0.332	0	0	1	0	2	2,015.83	171	188	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.38	0.435	0	3	0	0	2	1,812.79	2819	2836	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	GGVTGSPEASISGSK	K	G	95.00%	2.72	0.405	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	GHYEVTGSDDETGK	K	L	95.00%	2.29	0.521	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.06	0.546	0	0	1	0	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	GKGGVTGSPEASISGSK	K	G	95.00%	3.41	0.179	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	ISAPNVDFNLEGPK	R	V	95.00%	2.37	0.379	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	ISMQDVDLSLGSPK	K	L	95.00%	2.81	0.286	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	SKGHYEVTGSDDETGK	K	L	95.00%	2.54	0.357	0	1	0	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	3.61	0.18	0	0	0	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	10	10	12	0.07%	3.44%	VKTPEMIIQKPK	K	I	95.00%	2.11	0.323	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216LR_PC3_03	jub, ajuba homolog isoform 1	IPI00063605	56,934.60	99.80%	2	2	2	0.01%	8.18%	HSYPPALGSPGALAGAGVGAAGPLER	R	R	95.00%	3.82	0.306	0	0	1	0	2	2,453.20	229	254	TRUE	
SNU216LR_PC3_03	jub, ajuba homolog isoform 1	IPI00063605	56,934.60	99.80%	2	2	2	0.01%	8.18%	SSFASSSASDASKPSSPR	R	G	95.00%	4.15	0.549	0	1	0	0	2	1,835.78	122	139	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.80%	2	2	2	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	3.37	0.226	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216LR_PC3_03	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.80%	2	2	2	0.01%	2.59%	MANSSPVLSK	K	V	95.00%	2.09	0.31	0	1	0	0	2	1,113.50	214	223	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase RIO2	IPI00306406	63,309.70	100.00%	3	4	4	0.02%	8.70%	AEVYGSENESER	K	N	95.00%	2.05	0.377	0	1	0	0	2	1,449.55	345	356	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase RIO2	IPI00306406	63,309.70	100.00%	3	4	4	0.02%	8.70%	EGSEFSFSDGEVAEK	K	A	95.00%	2.49	0.288	0	1	0	0	2	1,697.66	330	344	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase RIO2	IPI00306406	63,309.70	100.00%	3	4	4	0.02%	8.70%	SSGDPEQIKEDSLSEESADAR	R	S	95.00%	3.55	0.385	0	1	1	0	2	2,329.97	369	389	TRUE	
SNU216LR_PC3_03	Isoform Delta of Poliovirus receptor-related prote	IPI00022661	57,741.90	99.80%	2	2	2	0.01%	4.83%	EQTLQGAEEDEDLEGPPSYKPPTPK	K	A	95.00%	4.09	0.235	0	0	1	0	2	2,835.26	388	412	TRUE	
SNU216LR_PC3_03	Isoform Delta of Poliovirus receptor-related prote	IPI00022661	57,741.90	99.80%	2	2	2	0.01%	4.83%	KEQTLQGAEEDEDLEGPPSYKPPTPK	R	A	95.00%	4.46	0.295	0	0	0	1	2	2,963.36	387	412	TRUE	
SNU216LR_PC3_03	Isoform 1 of Wilms' tumor 1-associating protein	IPI00220302	44,243.40	99.80%	1	1	1	0.01%	4.55%	EGNTTEDDFPSSPGNGNK	R	S	95.00%	2.74	0.345	0	1	0	0	2	1,945.75	295	312	TRUE	
SNU216LR_PC3_03	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	4.56%	SLDMDSIIAEVK	K	A	92.70%	2.52	0.164	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216LR_PC3_03	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	4.56%	SYKVSTSGPR	K	A	95.00%	1.5	0.362	0	1	0	0	2	1,161.53	8	17	TRUE	
SNU216LR_PC3_03	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.85%	SQDADSPGSSGAPENLTFK	K	E	95.00%	3.54	0.495	0	1	0	0	2	1,987.83	1784	1802	TRUE	
SNU216LR_PC3_03	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.85%	SSPNVANQPPSPGGK	R	S	95.00%	2.66	0.31	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216LR_PC3_03	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	98.70%	1	1	2	0.01%	3.05%	EGSQGELTPANSQSR	R	M	95.00%	3.15	0.479	0	2	0	0	2	1,640.69	508	522	TRUE	
SNU216LR_PC3_03	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.80%	2	2	2	0.01%	4.94%	ESPEGSYTDDANQEVR	R	G	95.00%	3.81	0.529	0	1	0	0	2	1,876.72	495	510	TRUE	
SNU216LR_PC3_03	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.80%	2	2	2	0.01%	4.94%	TISDGTISASK	R	Q	95.00%	2.21	0.451	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216LR_PC3_03	Isoform 1 of Serine/threonine-protein kinase 32C	IPI00328835	54,995.20	99.80%	2	2	2	0.01%	6.58%	RGSSAAASPGSPPPGR	R	A	95.00%	2.83	0.413	0	0	1	0	2	1,531.70	8	23	TRUE	
SNU216LR_PC3_03	Isoform 1 of Serine/threonine-protein kinase 32C	IPI00328835	54,995.20	99.80%	2	2	2	0.01%	6.58%	RSQDLPREPLPAPESR	K	D	95.00%	3.26	0.326	0	0	0	1	2	1,927.94	443	458	TRUE	
SNU216LR_PC3_03	Protein DEK	IPI00020021	42,675.90	100.00%	2	3	4	0.02%	10.70%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.78	0.676	0	1	2	0	2	2,722.93	30	50	TRUE	
SNU216LR_PC3_03	Protein DEK	IPI00020021	42,675.90	100.00%	2	3	4	0.02%	10.70%	NKEESSDDEDKESEEEPPK	K	K	95.00%	1.96	0.485	0	1	0	0	2	2,460.83	239	257	TRUE	
SNU216LR_PC3_03	CDNA FLJ30949 fis, clone HCASM1000021, weakly	IPI00306195,IPI00549786	29,262.80	99.80%	2	2	2	0.01%	15.20%	AATAARPPAPPPAPQPPSPTPSPPRPTLAR	R	E	95.00%	3.61	0.163	0	0	1	0	2	3,124.55	91	120	TRUE	
SNU216LR_PC3_03	CDNA FLJ30949 fis, clone HCASM1000021, weakly	IPI00306195,IPI00549786	29,262.80	99.80%	2	2	2	0.01%	15.20%	SLPVSVPVWGFK	K	E	95.00%	2.36	0.417	0	1	0	0	2	1,395.71	203	214	TRUE	
SNU216LR_PC3_03	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	2	2	2	0.01%	7.96%	GPAGEAGASPPVR	R	R	95.00%	2.56	0.323	0	1	0	0	2	1,245.56	102	114	TRUE	
SNU216LR_PC3_03	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	2	2	2	0.01%	7.96%	KPSLVSDLPWEGAAPQSPSFSGSEDSGSPK	K	H	95.00%	5.77	0.0745	0	0	1	0	2	3,124.42	206	235	TRUE	
SNU216LR_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	7	8	8	0.05%	21.90%	EESDGEYDEFGR	R	K	95.00%	2.97	0.558	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216LR_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	7	8	8	0.05%	21.90%	EESDGEYDEFGRK	R	K	95.00%	3.11	0.451	0	1	0	0	2	1,640.61	118	130	TRUE	
SNU216LR_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	7	8	8	0.05%	21.90%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.48	0.405	0	1	1	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	7	8	8	0.05%	21.90%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	3.18	0.31	0	0	1	0	2	2,419.90	147	166	TRUE	
SNU216LR_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	7	8	8	0.05%	21.90%	SRSPESQVIGENTK	R	Q	95.00%	2.48	0.35	0	1	0	0	2	1,691.70	305	318	TRUE	
SNU216LR_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	7	8	8	0.05%	21.90%	YNLDASEEEDSNK	K	K	95.00%	2.51	0.441	0	1	0	0	2	1,593.60	183	195	TRUE	
SNU216LR_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	7	8	8	0.05%	21.90%	YNLDASEEEDSNKKK	K	S	95.00%	2.4	0.249	0	1	0	0	2	1,849.79	183	197	TRUE	
SNU216LR_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	5	6	0.04%	9.07%	DYDDMSPR	R	R	95.00%	1.71	0.302	0	2	0	0	2	1,078.35	279	286	TRUE	
SNU216LR_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	5	6	0.04%	9.07%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.76	0.368	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	5	6	0.04%	9.07%	IILDLISESPIK	K	G	95.00%	2.65	0.171	0	1	0	0	2	1,420.77	208	219	TRUE	
SNU216LR_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	5	6	0.04%	9.07%	IILDLISESPIKGR	K	A	95.00%	3.09	0.36	0	1	0	0	2	1,633.89	208	221	TRUE	
SNU216LR_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	5	5	6	0.04%	9.07%	RDYDDMSPR	R	R	95.00%	2.05	0.18	1	0	0	0	2	1,234.46	278	286	TRUE	
SNU216LR_PC3_03	Dihydropyrimidinase-related protein 2	IPI00257508	62,294.00	100.00%	1	2	2	0.01%	2.10%	TSPAKQQAPPVR	K	N	95.00%	2.23	0.364	0	1	1	0	2	1,359.68	521	532	TRUE	
SNU216LR_PC3_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	1	1	1	0.01%	1.53%	GRSFAGNLNTYK	R	R	95.00%	3.72	0.407	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	9	0.05%	4.71%	DHSPTPSVFNSDEER	R	Y	95.00%	3.32	0.49	0	1	2	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	9	0.05%	4.71%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.46	0.375	0	2	3	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	5	9	0.05%	4.71%	RHESEEGDSHR	R	R	95.00%	2.03	0.3	0	0	1	0	2	1,418.54	551	561	TRUE	
SNU216LR_PC3_03	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	99.90%	2	2	2	0.01%	2.12%	EREVDEDSEPER	R	E	95.00%	3.14	0.326	0	0	1	0	2	1,569.61	75	86	TRUE	
SNU216LR_PC3_03	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	99.90%	2	2	2	0.01%	2.12%	EVDEDSEPER	R	E	93.50%	1.61	0.3	0	1	0	0	2	1,284.46	77	86	TRUE	
SNU216LR_PC3_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.69	0.406	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC3_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	NEGSESAPEGQAQQR	K	R	95.00%	2.33	0.413	0	1	0	0	2	1,747.63	170	184	TRUE	
SNU216LR_PC3_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	3	0.02%	15.20%	NYQQNYQNSESGEK	R	N	95.00%	2.59	0.367	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216LR_PC3_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	3	0.02%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	3.21	0.212	0	0	1	0	2	2,186.95	50	68	TRUE	
SNU216LR_PC3_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	3	0.02%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.26	0.383	0	1	1	0	2	1,764.73	99	114	TRUE	
SNU216LR_PC3_03	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	1	2	3	0.02%	3.39%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	4.49	0.144	0	1	2	0	2	2,929.08	432	455	TRUE	
SNU216LR_PC3_03	Filaggrin	IPI00026256	435,145.70	99.80%	2	2	2	0.01%	0.91%	DSEGHSEDSERRSESASR	R	N	95.00%	2.14	0.265	0	1	0	0	2	2,260.75	1599	1616	TRUE	
SNU216LR_PC3_03	Filaggrin	IPI00026256	435,145.70	99.80%	2	2	2	0.01%	0.91%	EDNEEGVYDYENTGRMTQK	K	W	95.00%	3.25	0.259	0	0	0	1	2	2,453.88	208	226	TRUE	
SNU216LR_PC3_03	Isoform 1 of Poly [ADP-ribose] polymerase 2	IPI00026497,IPI00220995	66,207.80	99.80%	2	2	2	0.01%	2.92%	RVNNGNTAPEDSSPAKK	K	T	95.00%	3.08	0.185	0	0	1	0	2	1,864.86	22	38	TRUE	
SNU216LR_PC3_03	Isoform 1 of Poly [ADP-ribose] polymerase 2	IPI00026497,IPI00220995	66,207.80	99.80%	2	2	2	0.01%	2.92%	VNNGNTAPEDSSPAKK	R	T	95.00%	2.93	0.271	0	0	1	0	2	1,708.75	23	38	TRUE	
SNU216LR_PC3_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	3.02	0.356	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC3_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	2	0.01%	2.43%	RSPPADAIPK	R	S	95.00%	2.15	0.244	0	1	0	0	2	1,131.56	10	19	TRUE	
SNU216LR_PC3_03	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	1	2	5	0.03%	6.11%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	5.48	0.351	0	0	2	3	2	3,734.69	135	167	TRUE	
SNU216LR_PC3_03	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	3	3	3	0.02%	8.98%	RPDPDSDEDEDYER	R	E	95.00%	3.96	0.604	0	1	0	0	2	1,817.65	150	163	TRUE	
SNU216LR_PC3_03	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	3	3	3	0.02%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	3.4	0.282	0	0	1	0	2	2,102.79	150	165	TRUE	
SNU216LR_PC3_03	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	3	3	3	0.02%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.46	0.553	0	1	0	0	2	2,052.92	222	241	TRUE	
SNU216LR_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	9.74%	KPGPSGPSESPK	R	A	95.00%	2.28	0.282	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216LR_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	9.74%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.76	0.37	0	0	1	0	2	2,526.21	280	301	TRUE	
SNU216LR_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	9.74%	KTSPASLDFPESQK	R	S	95.00%	3.59	0.442	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216LR_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	9.74%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	3.92	0.43	0	0	1	0	2	2,314.11	199	219	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	9.74%	TAPTLSPEHWK	K	A	87.70%	2.06	0.188	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216LR_PC3_03	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	99.80%	1	2	3	0.02%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	5.33	0.418	0	1	2	0	2	2,661.12	164	187	TRUE	
SNU216LR_PC3_03	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	5	5	7	0.04%	11.60%	IPMTPTSSFVSPPPPTASPHSNR	K	T	95.00%	3.71	0.197	0	0	1	0	2	2,485.16	373	395	TRUE	
SNU216LR_PC3_03	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	5	5	7	0.04%	11.60%	KPSPEPEGEVGPPK	R	I	95.00%	2.96	0.438	0	1	0	0	2	1,527.71	342	355	TRUE	
SNU216LR_PC3_03	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	5	5	7	0.04%	11.60%	NSNSPPSPSSMNQR	R	R	95.00%	2.33	0.315	0	3	0	0	2	1,582.63	438	451	TRUE	
SNU216LR_PC3_03	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	5	5	7	0.04%	11.60%	RKPSPEPEGEVGPPK	K	I	95.00%	3.31	0.363	0	1	0	0	2	1,683.81	341	355	TRUE	
SNU216LR_PC3_03	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	100.00%	5	5	7	0.04%	11.60%	RPASVSSSAAVEHEQR	K	E	95.00%	4.63	0.491	0	0	1	0	2	1,790.82	237	252	TRUE	
SNU216LR_PC3_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	4	4	0.02%	5.78%	GGSISVQVNSIKFDSE	R	-	95.00%	2.82	0.281	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216LR_PC3_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	4	4	0.02%	5.78%	VADNSFDAKR	R	G	95.00%	1.82	0.286	0	1	0	0	2	1,202.52	649	658	TRUE	
SNU216LR_PC3_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	4	4	0.02%	5.78%	VAGGAAPSKPASAK	K	K	93.50%	2.4	0.2	0	1	0	0	2	1,291.64	507	520	TRUE	
SNU216LR_PC3_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	4	4	4	0.02%	5.78%	VAGGAAPSKPASAKK	K	G	95.00%	2.39	0.326	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC3_03	Nuclear migration protein nudC	IPI00550746	38,243.70	99.80%	1	1	1	0.01%	6.95%	NGSLDSPGKQDTEEDEEEDEKDK	K	G	95.00%	3.91	0.38	0	0	1	0	2	2,674.05	134	156	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.90%	3	4	4	0.02%	13.60%	AQVLATIHGHAGAFPAAGDAGEGAPGGGS	R	V	95.00%	7.09	0.628	0	0	1	1	2	3,093.42	283	315	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.90%	3	4	4	0.02%	13.60%	MAGNEALSPTSPFR	R	E	86.20%	2.57	0.156	0	1	0	0	2	1,557.68	205	218	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.90%	3	4	4	0.02%	13.60%	SRSFTLDDESLK	R	Y	89.90%	2.6	0.122	0	1	0	0	2	1,477.66	41	52	TRUE	
SNU216LR_PC3_03	2'-phosphodiesterase	IPI00174390	67,381.70	99.80%	1	1	1	0.01%	5.58%	EAKPGAAEPEVGVPSSLSPSSPSSSWTETDV	K	V	95.00%	6.68	0.0915	0	0	1	0	2	3,579.60	200	233	TRUE	
SNU216LR_PC3_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	3	3	3	0.02%	3.78%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.71	0.569	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC3_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	3	3	3	0.02%	3.78%	SVASSQPAKPTK	R	V	95.00%	2.38	0.344	0	1	0	0	2	1,280.62	175	186	TRUE	
SNU216LR_PC3_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	3	3	3	0.02%	3.78%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.36	0.308	0	0	1	0	2	3,523.46	112	140	TRUE	
SNU216LR_PC3_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	MSADMSEIEAR	R	I	81.00%	1.91	0.197	0	1	0	0	2	1,319.50	388	398	TRUE	
SNU216LR_PC3_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	RMSADMSEIEAR	K	I	95.00%	2.4	0.235	0	1	0	0	2	1,475.60	387	398	TRUE	
SNU216LR_PC3_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.22	0.437	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216LR_PC3_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	4	4	4	0.02%	5.53%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	3.26	0.523	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	6	6	0.04%	4.80%	DKEVSDDEAEEK	R	E	95.00%	2.46	0.289	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	6	6	0.04%	4.80%	DKEVSDDEAEEKEDK	R	E	95.00%	4.11	0.388	0	0	1	0	2	1,845.73	349	363	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	6	6	0.04%	4.80%	ERDKEVSDDEAEEK	K	E	95.00%	3.73	0.383	0	0	1	0	2	1,758.71	347	360	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	6	6	0.04%	4.80%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.23	0.348	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	6	6	0.04%	4.80%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.81	0.397	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	6	6	6	0.04%	4.80%	EVSDDEAEEKEDKEEEK	K	E	95.00%	3.47	0.427	0	0	1	0	2	2,117.83	351	367	TRUE	
SNU216LR_PC3_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	5	7	0.04%	25.90%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	3.75	0.509	0	0	1	0	2	2,506.85	272	293	TRUE	
SNU216LR_PC3_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	5	7	0.04%	25.90%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.24	0.514	0	2	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC3_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	5	7	0.04%	25.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	8.26	0.56	0	0	1	2	2	4,277.68	238	275	TRUE	
SNU216LR_PC3_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	5	7	0.04%	25.90%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	2.85	0.225	0	0	1	0	2	2,320.00	211	230	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	3	0.02%	5.73%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.13	0.555	0	2	0	0	2	1,760.70	495	511	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	3	0.02%	5.73%	SRTGSESSQTGTSTTSSR	R	N	95.00%	2.11	0.277	0	1	0	0	2	1,896.79	418	435	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.51	0.403	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	3.61	0.184	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216LR_PC3_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	4	5	0.03%	9.48%	ALASEKSPTADAKPAPK	K	R	95.00%	3.5	0.392	0	1	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC3_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	4	5	0.03%	9.48%	IPSKEEEADMSSPTQR	K	T	95.00%	2.77	0.258	0	2	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC3_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	4	5	0.03%	9.48%	NSLSPVQATQKPLVSK	R	K	95.00%	3.06	0.435	0	1	0	0	2	1,776.93	134	149	TRUE	
SNU216LR_PC3_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	4	4	0.02%	12.80%	AEEKSPISINVK	K	T	95.00%	2.89	0.343	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216LR_PC3_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	4	4	0.02%	12.80%	EVKAEEKSPISINVK	R	T	95.00%	2.85	0.292	0	1	0	0	2	1,750.90	118	132	TRUE	
SNU216LR_PC3_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	4	4	0.02%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	4.25	0.533	0	1	1	0	2	2,591.25	92	117	TRUE	
SNU216LR_PC3_03	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	2	2	2	0.01%	9.89%	ELSHEDLEPPPEHIPPPPRPPK	K	R	95.00%	2.79	0.305	0	0	0	1	2	2,588.26	293	314	TRUE	
SNU216LR_PC3_03	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	2	2	2	0.01%	9.89%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	4.41	0.454	0	1	0	0	2	2,302.01	351	371	TRUE	
SNU216LR_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	8	0.05%	8.08%	DIEISTEEEKDTGDLK	R	D	95.00%	2.4	0.233	0	1	0	0	2	1,981.79	333	348	TRUE	
SNU216LR_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	8	0.05%	8.08%	KRSSSEDAESLAPR	R	S	95.00%	3.9	0.399	0	2	2	0	2	1,612.73	296	309	TRUE	
SNU216LR_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	8	0.05%	8.08%	SRPTSEGSDIESTEPQK	R	Q	95.00%	4.07	0.119	0	2	0	0	2	1,927.83	254	270	TRUE	
SNU216LR_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	8	0.05%	8.08%	SSSEDAESLAPR	R	S	95.00%	3.02	0.369	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216LR_PC3_03	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NDLQDTEISPR	K	Q	95.00%	2.42	0.238	0	1	0	0	2	1,367.58	463	473	TRUE	
SNU216LR_PC3_03	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAK	R	S	95.00%	3.26	0.39	0	1	0	0	2	1,547.76	90	102	TRUE	
SNU216LR_PC3_03	Postreplication repair protein RAD18	IPI00024579	56,195.70	100.00%	3	3	3	0.02%	6.46%	NHLLQFALESPAKSPASSSSK	R	N	95.00%	4.89	0.106	0	0	1	0	2	2,279.11	90	110	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	12.40%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	4.73	0.329	0	0	1	1	2	3,065.37	341	365	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	12.40%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.26	0.31	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	12.40%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.05	0.389	0	0	1	1	2	2,653.22	98	121	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	12.40%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	3.93	0.355	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216LR_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	12.40%	SLSPGKENVSALDMEK	K	E	95.00%	3.58	0.45	0	1	0	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC3_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	AAVVTSPPPTTAPHK	R	E	95.00%	2.71	0.389	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216LR_PC3_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	SPGSPVGEGTGSPPK	R	W	95.00%	3.49	0.523	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216LR_PC3_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPK	R	Y	95.00%	4.76	0.449	0	1	1	0	2	2,165.95	217	236	TRUE	
SNU216LR_PC3_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	3.52	0.199	0	0	1	0	2	2,698.25	217	240	TRUE	
SNU216LR_PC3_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.56	0.502	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216LR_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	DYDEEEQGYDSEKEK	R	K	95.00%	3.33	0.265	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	DYDEEEQGYDSEKEKK	R	E	95.00%	3.55	0.384	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216LR_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	LNHVAAGLVSPSLK	K	S	95.00%	2.33	0.374	0	1	1	0	2	1,485.78	138	151	TRUE	
SNU216LR_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	SKTPPKSYSTAR	R	R	95.00%	2.95	0.441	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216LR_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	5	6	6	0.04%	11.80%	VNGDDHHEEDMDMSD	K	-	95.00%	2.59	0.51	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216LR_PC3_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	5	5	0.03%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.81	0.366	0	1	1	1	2	2,020.82	45	61	TRUE	
SNU216LR_PC3_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	5	5	0.03%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	3.1	0.183	0	0	1	1	2	2,256.89	44	61	TRUE	
SNU216LR_PC3_03	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	1	1	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	94.50%	3.07	0.159	0	0	0	1	2	2,531.23	30	50	TRUE	
SNU216LR_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	14	18	0.11%	10.10%	EELMSSDLEETAGSTSIPK	K	R	95.00%	3.97	0.395	0	2	2	0	2	2,103.90	515	533	TRUE	
SNU216LR_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	14	18	0.11%	10.10%	EEPVSSGPEEAVGK	K	S	95.00%	3.74	0.439	0	1	0	0	2	1,494.64	565	578	TRUE	
SNU216LR_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	14	18	0.11%	10.10%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.17	0.391	0	2	1	0	2	1,936.80	562	578	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	14	18	0.11%	10.10%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	3.89	0.324	0	2	1	0	2	1,984.93	561	578	TRUE	
SNU216LR_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	14	18	0.11%	10.10%	KSFSKEELMSSDLEETAGSTSIPK	K	R	89.80%	4.01	0	0	2	0	0	2	2,681.23	510	533	TRUE	
SNU216LR_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	14	18	0.11%	10.10%	KSTPKEETVNDPEEAGHR	K	S	95.00%	4.61	0.298	0	0	1	0	2	2,103.93	536	553	TRUE	
SNU216LR_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	10	14	18	0.11%	10.10%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.37	0	0	4	0	0	2	2,553.13	511	533	TRUE	
SNU216LR_PC3_03	Isoform 1 of Hepatocyte growth factor receptor p	IPI00029273,IPI00294528	155,529.20	99.80%	1	1	2	0.01%	1.22%	SVSPTTEMVSNESVDYR	R	A	95.00%	3.48	0.533	0	2	0	0	2	1,980.83	988	1004	TRUE	
SNU216LR_PC3_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	4	6	13	0.08%	3.54%	SPSPEPIYNSEGK	R	R	95.00%	2.3	0.283	0	2	0	0	2	1,484.63	204	216	TRUE	
SNU216LR_PC3_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	4	6	13	0.08%	3.54%	SPSPEPIYNSEGKR	R	L	86.30%	2.08	0.201	0	1	0	0	2	1,720.70	204	217	TRUE	
SNU216LR_PC3_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	4	6	13	0.08%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.65	0.319	0	2	3	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC3_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	4	6	13	0.08%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.7	0.339	0	0	3	2	2	3,082.36	191	217	TRUE	
SNU216LR_PC3_03	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	100.00%	1	1	1	0.01%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	3.63	0.529	0	1	0	0	2	1,586.78	68	81	TRUE	
SNU216LR_PC3_03	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	4	4	0.02%	16.90%	EHPTVVPSHKSPVLDTKPK	R	E	95.00%	3.06	0.288	0	0	1	0	2	2,176.12	454	472	TRUE	
SNU216LR_PC3_03	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	4	4	0.02%	16.90%	ETGGILGEGTPK	K	E	95.00%	2.5	0.376	0	1	0	0	2	1,238.57	473	484	TRUE	
SNU216LR_PC3_03	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	4	4	0.02%	16.90%	FQTGNKSPEVLR	R	A	94.10%	2.39	0.203	0	1	0	0	2	1,455.70	432	443	TRUE	
SNU216LR_PC3_03	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	4	4	4	0.02%	16.90%	PVSGQDTSGNTEGSPAAEK	K	A	95.00%	3.39	0.536	0	1	0	0	2	1,911.80	496	514	TRUE	
SNU216LR_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	17	0.10%	24.90%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.33	0.335	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216LR_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	17	0.10%	24.90%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.22	0.409	0	1	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	17	0.10%	24.90%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.02	0.588	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	17	0.10%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.27	0.413	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	9	17	0.10%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.31	0.663	0	0	1	9	2	3,735.89	46	80	TRUE	
SNU216LR_PC3_03	HSPC121	IPI00008998	44,424.70	99.80%	1	1	1	0.01%	3.22%	WLDESDAEMELR	R	A	95.00%	2.78	0.391	0	1	0	0	2	1,573.62	110	121	TRUE	
SNU216LR_PC3_03	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	99.80%	1	2	2	0.01%	5.69%	INHTVILDDPFDDPPDLLIPDRSPEPTR	R	E	95.00%	5.79	0.572	0	0	1	1	2	3,277.58	156	183	TRUE	
SNU216LR_PC3_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00292000,IPI00657721	55,457.40	100.00%	1	1	1	0.01%	1.20%	SGLMST	K	-	88.10%	1.12	0.369	1	0	0	0	2	675.242	494	499	TRUE	
SNU216LR_PC3_03	Multifunctional protein ADE2	IPI00217223	49,680.30	99.80%	1	1	1	0.01%	2.88%	TKEVYELLDSPGK	K	V	95.00%	3.2	0.447	0	1	0	0	2	1,558.74	44	56	TRUE	
SNU216LR_PC3_03	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.80%	2	2	2	0.01%	10.50%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	4.02	0.478	0	0	1	0	2	2,916.11	144	170	TRUE	
SNU216LR_PC3_03	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.80%	2	2	2	0.01%	10.50%	AESPSPAPPPGLR	R	G	95.00%	2.29	0.245	0	1	0	0	2	1,355.64	306	318	TRUE	
SNU216LR_PC3_03	Negative elongation factor B	IPI00103483	65,699.50	99.80%	1	2	2	0.01%	4.48%	KPSPAQAAETPALELPLPSVPAPAPL	R	-	95.00%	4.57	0.46	0	1	1	0	2	2,642.38	555	580	TRUE	
SNU216LR_PC3_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	1	1	1	0.01%	2.60%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.17	0.242	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216LR_PC3_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	4	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.95	0.429	0	1	2	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC3_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	4	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.4	0.253	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216LR_PC3_03	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	99.80%	1	1	1	0.01%	1.81%	RKSGGNEVSIEER	K	L	95.00%	2.55	0.339	0	1	0	0	2	1,540.71	429	441	TRUE	
SNU216LR_PC3_03	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	1	1	2	0.01%	3.25%	ASGEMASAQYITAALR	R	D	95.00%	3.02	0.432	0	2	0	0	2	1,719.78	107	122	TRUE	
SNU216LR_PC3_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.90%	3	3	3	0.02%	5.89%	RYPSSISSSPQK	R	D	85.00%	2.07	0.185	0	1	0	0	2	1,416.65	603	614	TRUE	
SNU216LR_PC3_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.90%	3	3	3	0.02%	5.89%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.5	0.405	0	0	1	0	2	2,040.01	441	461	TRUE	
SNU216LR_PC3_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.90%	3	3	3	0.02%	5.89%	STSAPQMSPGSSSDNQSSSPQPAQQK	K	L	84.60%	3.71	0.115	0	0	1	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC3_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	4	5	6	0.04%	17.40%	GSSPGPRPVEGTPASR	R	T	95.00%	2.18	0.293	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216LR_PC3_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	4	5	6	0.04%	17.40%	QAPAPTVIRDPPSITPAVKSPLPGPSEEK	R	T	95.00%	5.12	0.419	0	0	1	1	2	3,059.58	439	467	TRUE	
SNU216LR_PC3_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	4	5	6	0.04%	17.40%	TDTPPSSVPTSVISTPSTEEIQSETPGDAQGS	K	R	95.00%	3.57	0.304	0	0	1	0	2	3,846.77	507	543	TRUE	
SNU216LR_PC3_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	4	5	6	0.04%	17.40%	TQDPSSPGTTPPQAR	R	Q	95.00%	3.01	0.258	0	2	0	0	2	1,699.67	424	438	TRUE	
SNU216LR_PC3_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	3	0.02%	2.14%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	5.01	0.337	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216LR_PC3_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	3	0.02%	2.14%	VPSSDEEVVEEPQSR	R	R	95.00%	3.64	0.434	0	2	0	0	2	1,846.71	1618	1632	TRUE	
SNU216LR_PC3_03	CTP synthase	IPI00290142	66,690.70	100.00%	1	1	1	0.01%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	84.90%	3.4	0.0367	0	1	0	0	2	2,327.01	571	591	TRUE	
SNU216LR_PC3_03	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,807.00	99.80%	2	2	2	0.01%	5.44%	EKGSETDSAQDQPVK	K	M	95.00%	2.99	0.473	0	1	0	0	2	1,698.72	66	80	TRUE	
SNU216LR_PC3_03	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,807.00	99.80%	2	2	2	0.01%	5.44%	GGLSPANDTGAK	R	K	95.00%	2.17	0.407	1	0	0	0	2	1,167.50	44	55	TRUE	
SNU216LR_PC3_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	99.80%	1	1	1	0.01%	3.51%	IKWDEQTSNTKGDDDEESDEEAVK	R	K	95.00%	3.09	0.275	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216LR_PC3_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	3	3	0.02%	4.92%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	3.5	0.398	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216LR_PC3_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	3	3	0.02%	4.92%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	86.80%	6.88	0	0	0	1	0	2	3,783.64	362	396	TRUE	
SNU216LR_PC3_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	3	3	0.02%	4.92%	WRPHSPDGPR	R	S	95.00%	2.38	0.199	0	1	0	0	2	1,284.56	232	241	TRUE	
SNU216LR_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	AGGLDWPEATEVSPSR	R	T	95.00%	3.38	0.436	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.05	0.391	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216LR_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.07	0.27	0	0	1	0	2	2,142.05	308	326	TRUE	
SNU216LR_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.02%	6.90%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	3.5	0.309	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	1	1	1	0.01%	3.98%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.41	0.605	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216LR_PC3_03	heterogeneous nuclear ribonucleoprotein L isofor	IPI00027834	64,132.80	100.00%	1	1	1	0.01%	4.41%	NDQDTWDYTNPNLSGQGDPGSNPNKR	K	Q	82.80%	3.09	0.148	0	0	1	0	2	2,970.23	278	303	TRUE	
SNU216LR_PC3_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	2	3	3	0.02%	6.79%	SRWSGSQQVEQPTGSVLWMAPEVIR	K	M	95.00%	4.64	0.457	0	0	1	0	2	2,908.38	494	518	TRUE	
SNU216LR_PC3_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	2	3	3	0.02%	6.79%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	4.02	0.52	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216LR_PC3_03	Torsin-1A-interacting protein 2	IPI00168878	51,263.10	100.00%	2	3	3	0.02%	5.96%	GHHLPSENLGKEPLDPDPSHSPSDK	K	V	95.00%	5.46	0.46	0	0	1	1	2	2,770.25	100	124	TRUE	
SNU216LR_PC3_03	Torsin-1A-interacting protein 2	IPI00168878	51,263.10	100.00%	2	3	3	0.02%	5.96%	GHHLPSENLGKEPLDPDPSHSPSDKVGR	K	A	95.00%	4.33	0.183	0	0	0	1	2	3,082.44	100	127	TRUE	
SNU216LR_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	5	6	0.04%	10.70%	DFQEYVEPGEDFPASPQR	R	R	95.00%	4.17	0.393	0	1	0	0	2	2,190.90	193	210	TRUE	
SNU216LR_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	5	6	0.04%	10.70%	DFQEYVEPGEDFPASPQRR	R	N	95.00%	3.21	0.234	0	1	0	0	2	2,347.00	193	211	TRUE	
SNU216LR_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	5	6	0.04%	10.70%	KPVTVSPTTPTSPTEGEAS	R	-	95.00%	2.43	0.307	0	2	0	0	2	1,965.91	505	523	TRUE	
SNU216LR_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	5	6	0.04%	10.70%	SVSSNVASVSPIPAGSK	R	K	95.00%	3.68	0.0854	0	1	0	0	2	1,666.80	412	428	TRUE	
SNU216LR_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	5	5	6	0.04%	10.70%	SVSSNVASVSPIPAGSKK	R	I	95.00%	3.11	0.283	0	1	0	0	2	1,794.90	412	429	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI	K	H	95.00%	4.86	0.214	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	3.24	0.44	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC3_03	Isoform 1 of Cleavage and polyadenylation specif	IPI00550821,IPI00719106	51,096.50	100.00%	2	2	2	0.01%	7.01%	DSSDSADGRATPSENLVPSSAR	R	V	95.00%	3.33	0.307	0	0	1	0	2	2,298.98	184	205	TRUE	
SNU216LR_PC3_03	Isoform 1 of Cleavage and polyadenylation specif	IPI00550821,IPI00719106	51,096.50	100.00%	2	2	2	0.01%	7.01%	SSSTEPPPPVR	R	Q	91.80%	1.87	0.279	0	1	0	0	2	1,233.55	46	56	TRUE	
SNU216LR_PC3_03	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	GPDEAMEDGEEGSDDEAEWVVTK	R	D	95.00%	5.51	0.599	0	2	2	0	2	2,574.97	426	448	TRUE	
SNU216LR_PC3_03	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	SKYDEIFYNLAPADGKLSGSK	K	A	95.00%	3.19	0.343	0	0	1	0	2	2,383.12	451	471	TRUE	
SNU216LR_PC3_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	3	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.14	0.141	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216LR_PC3_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	3	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	3.79	0.262	0	0	1	1	2	2,907.33	232	258	TRUE	
SNU216LR_PC3_03	Isoform 1 of Far upstream element-binding prote	IPI00377261	61,639.90	100.00%	1	1	1	0.01%	4.55%	QSHAASAAPQASSPPDYTMAWAEYYR	K	Q	95.00%	4.64	0.421	0	0	1	0	2	2,936.23	527	552	TRUE	
SNU216LR_PC3_03	VPRBP protein	IPI00181396,IPI00329528	168,940.10	98.50%	1	1	1	0.01%	1.60%	HLPSPPTLDSIITEYLR	R	E	95.00%	3.21	0.301	0	0	1	0	2	2,032.02	996	1012	TRUE	
SNU216LR_PC3_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	2	3	3	0.02%	3.59%	RLSVELTSSLFR	K	T	95.00%	3.14	0.378	0	1	1	0	2	1,487.76	673	684	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	2	3	3	0.02%	3.59%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.63	0.456	0	1	0	0	2	1,860.84	550	565	TRUE	
SNU216LR_PC3_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	5.11	0.398	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	ASSLSESSPPK	R	A	91.20%	2.04	0.262	0	1	0	0	2	1,169.51	367	377	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	5.33	0.45	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	ETPHSPGVEDAPIAK	R	V	95.00%	2.61	0.346	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	6.12	0.501	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.06	0.476	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	LRSPPEALVQGR	R	Y	95.00%	2.85	0.274	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.19	0.436	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.49	0.508	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	11	12	0.07%	17.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.18	0.435	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC3_03	LOC162427 protein	IPI00254338	51,397.40	99.80%	2	2	2	0.01%	12.00%	GQTPLTEGSEDLDGHSDPEESFAR	R	D	95.00%	4.14	0.344	0	0	1	0	2	2,654.09	305	328	TRUE	
SNU216LR_PC3_03	LOC162427 protein	IPI00254338	51,397.40	99.80%	2	2	2	0.01%	12.00%	SPSSDLDTDAEGDDFELLDQSELSQLDPASS	R	S	95.00%	4.69	0.416	0	0	1	0	2	3,519.48	433	464	TRUE	
SNU216LR_PC3_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	3.95	0.316	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC3_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.79	0.421	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216LR_PC3_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	99.90%	2	2	2	0.01%	2.59%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	4.06	0.357	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216LR_PC3_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	99.90%	2	2	2	0.01%	2.59%	VKLNFDMTASPK	K	I	94.90%	2.2	0.245	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216LR_PC3_03	Tubulin--tyrosine ligase-like protein 12	IPI00029048	74,403.70	100.00%	1	3	3	0.02%	4.04%	SSPGQTPEEGAQALAEFAALHGPALR	R	A	95.00%	5.24	0.472	0	1	1	1	2	2,685.27	15	40	TRUE	
SNU216LR_PC3_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	4.29%	GEIKDSSPSSSPSPK	K	G	95.00%	2.52	0.21	0	1	0	0	2	1,582.70	333	347	TRUE	
SNU216LR_PC3_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	4.29%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	83.20%	6.22	0.0254	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC3_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	4.29%	RSSLLSLMTGK	R	K	95.00%	2.57	0.332	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216LR_PC3_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.59	0.192	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216LR_PC3_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	EEVVGGDDSDGLR	R	A	94.60%	2.39	0.231	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216LR_PC3_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	5.41	0.155	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216LR_PC3_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	1	1	1	0.01%	11.40%	KPATPAEDDEDDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.74	0.557	0	0	1	0	2	3,657.52	143	174	TRUE	
SNU216LR_PC3_03	Isoform 1 of Doublecortin domain-containing pro	IPI00008917	52,803.60	99.80%	1	1	1	0.01%	3.36%	STVGSSDNSSPQPLKR	K	K	95.00%	2.35	0.284	0	0	1	0	2	1,739.80	261	276	TRUE	
SNU216LR_PC3_03	Isoform 2 of RNA polymerase I-associated factor	IPI00012788,IPI00645816	55,171.70	100.00%	3	3	3	0.02%	9.38%	MPETVPQEEMPGPPLNSESGEEAPTGR	R	D	95.00%	5.92	0.364	0	0	1	0	2	2,946.25	474	500	TRUE	
SNU216LR_PC3_03	Isoform 2 of RNA polymerase I-associated factor	IPI00012788,IPI00645816	55,171.70	100.00%	3	3	3	0.02%	9.38%	QEQINTEPLEDTVLSPTK	K	K	95.00%	4.34	0.349	0	1	0	0	2	2,122.00	273	290	TRUE	
SNU216LR_PC3_03	Isoform 2 of RNA polymerase I-associated factor	IPI00012788,IPI00645816	55,171.70	100.00%	3	3	3	0.02%	9.38%	TVKQEQINTEPLEDTVLSPTK	K	K	95.00%	3.78	0.321	0	0	1	0	2	2,450.21	270	290	TRUE	
SNU216LR_PC3_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	9.23%	KSFTPDHVVYAR	R	S	95.00%	2.81	0.458	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216LR_PC3_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	9.23%	RGSSPDVHALLEITEESDAVLVDK	R	S	95.00%	4.09	0.421	0	0	1	0	2	2,740.25	363	386	TRUE	
SNU216LR_PC3_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	99.90%	2	2	2	0.01%	4.11%	PAPPQEESPSSEAK	R	S	95.00%	2.39	0.228	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216LR_PC3_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	99.90%	2	2	2	0.01%	4.11%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.59	0.312	0	0	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC3_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	4	4	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	K	S	95.00%	5.2	0.475	0	1	1	1	2	2,873.37	59	85	TRUE	
SNU216LR_PC3_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	4	4	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	91.70%	4.08	0.0021	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216LR_PC3_03	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	1	2	8	0.05%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.81	0.534	3	5	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC3_03	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	3.33	0.246	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	4	4	0.02%	5.36%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	3.67	0.302	0	0	0	1	2	2,851.43	615	639	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	4	4	0.02%	5.36%	RESPSEERLEPK	R	R	95.00%	2.28	0.266	0	1	1	0	2	1,536.71	921	932	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	4	4	0.02%	5.36%	SHESNAPGSAGGQASEKPR	R	E	95.00%	3.79	0.464	0	0	1	0	2	1,946.84	988	1006	TRUE	
SNU216LR_PC3_03	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	2	2	0.01%	6.46%	DRSSPPPGYIPDELHQVAR	R	N	95.00%	5.2	0.384	0	0	1	0	2	2,214.03	161	179	TRUE	
SNU216LR_PC3_03	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	2	2	0.01%	6.46%	RRGSDIDNPTLTVMDISPPSR	R	S	95.00%	5.16	0.428	0	0	1	0	2	2,407.14	328	348	TRUE	
SNU216LR_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.42%	RVPSPTPAPK	K	E	95.00%	2.07	0.237	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216LR_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.42%	SPVPSAFSDQSR	R	C	95.00%	2.36	0.203	0	1	0	0	2	1,357.58	2449	2460	TRUE	
SNU216LR_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.42%	THTTALAGRSPSPASGR	K	R	91.10%	2.53	0.157	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216LR_PC3_03	Isoform 1 of Ran-binding protein 3	IPI00026337,IPI00456728,IP	60,209.90	99.80%	1	2	2	0.01%	2.82%	VLSPPKLNEVSSDANR	R	E	95.00%	3.46	0.361	0	1	1	0	2	1,805.88	331	346	TRUE	
SNU216LR_PC3_03	insulin-like growth factor 2 mRNA binding protein	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	2	5	0.03%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3.13	0.394	0	3	2	0	2	1,980.90	152	168	TRUE	
SNU216LR_PC3_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.70%	2	2	2	0.01%	4.07%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	4.15	0.364	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216LR_PC3_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.70%	2	2	2	0.01%	4.07%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	94.60%	6.19	0.0432	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216LR_PC3_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	2	3	0.02%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.01	0.208	0	0	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216LR_PC3_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	2	3	0.02%	0.88%	SSSVGSSSSYPISPAVSR	R	T	93.50%	4.21	0.0199	0	2	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216LR_PC3_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	EFDEDSDEKEEEEDTYEK	K	V	95.00%	4.25	0.388	0	1	0	0	2	2,345.83	619	636	TRUE	
SNU216LR_PC3_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.48	0.225	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216LR_PC3_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.96%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.81	0.253	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216LR_PC3_03	far upstream element-binding protein	IPI00375441	67,560.60	100.00%	1	2	2	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	3.97	0.426	0	1	1	0	2	2,661.16	621	644	TRUE	
SNU216LR_PC3_03	Fibrillarin	IPI00025039	33,784.10	100.00%	1	1	1	0.01%	4.36%	RVSISEGDDKIEYR	K	A	95.00%	3.83	0.412	0	0	1	0	2	1,746.81	122	135	TRUE	
SNU216LR_PC3_03	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	100.00%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.89	0.392	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC3_03	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	100.00%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	3.81	0.266	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	7	0.04%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.12	0.496	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	7	0.04%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDMI	R	S	95.00%	4.33	0.391	0	0	2	1	2	3,647.49	108	138	TRUE	
SNU216LR_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	7	0.04%	13.00%	LDNVPHTPSSYIETLPK	R	A	95.00%	3.21	0.212	0	0	1	0	2	1,990.95	45	61	TRUE	
SNU216LR_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	7	0.04%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.31	0.461	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	108,385.20	99.60%	2	2	2	0.01%	3.00%	DQSPPPSPPPSYHPPPPPTK	K	K	92.80%	2.91	0.191	0	0	1	0	2	2,279.98	678	697	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	108,385.20	99.60%	2	2	2	0.01%	3.00%	GLAGPPASPGK	K	A	95.00%	2.03	0.415	0	1	0	0	2	1,031.49	549	559	TRUE	
SNU216LR_PC3_03	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	2	2	2	0.01%	4.29%	RGSSGSVVVDLLYWR	R	D	95.00%	3.47	0.403	0	0	1	0	2	1,773.87	179	193	TRUE	
SNU216LR_PC3_03	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	2	2	2	0.01%	4.29%	RRGSSGSVVVDLLYWR	K	D	95.00%	4.15	0.351	0	0	1	0	2	1,929.97	178	193	TRUE	
SNU216LR_PC3_03	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.90%	1	2	3	0.02%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.8	0.326	0	1	2	0	2	1,498.67	12	23	TRUE	
SNU216LR_PC3_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	IRDWHLKQSPASPER	K	D	95.00%	3.35	0.246	0	0	1	0	2	1,899.92	136	150	TRUE	
SNU216LR_PC3_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	MIGFPSSAGSVSPR	K	S	95.00%	2.81	0.514	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216LR_PC3_03	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	3	4	4	0.02%	10.10%	GTEAPAVVTEEEDDDEETAPPVIAPRPDHTK	K	S	95.00%	6.42	0.523	0	0	1	1	2	3,395.52	161	191	TRUE	
SNU216LR_PC3_03	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	3	4	4	0.02%	10.10%	YLSFTPPEK	K	D	94.60%	1.79	0.259	0	1	0	0	2	1,161.52	139	147	TRUE	
SNU216LR_PC3_03	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	3	4	4	0.02%	10.10%	YLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.69	0.451	0	1	0	0	2	2,417.14	139	160	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.50%	2	2	2	0.01%	1.74%	DSENLASPSEYPENGER	R	F	89.70%	2.22	0.238	0	1	0	0	2	1,973.78	617	633	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.50%	2	2	2	0.01%	1.74%	NLNNSNLFSPVNR	K	D	95.00%	2.59	0.228	0	1	0	0	2	1,568.72	604	616	TRUE	
SNU216LR_PC3_03	DGCR14 protein	IPI00165171	52,568.80	99.80%	2	2	2	0.01%	4.41%	ELIPQESPR	K	V	95.00%	2.33	0.247	0	1	0	0	2	1,148.53	286	294	TRUE	
SNU216LR_PC3_03	DGCR14 protein	IPI00165171	52,568.80	99.80%	2	2	2	0.01%	4.41%	GLSPAMSPALQR	K	L	95.00%	2.07	0.275	0	1	0	0	2	1,387.58	389	400	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.20%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.33	0.408	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.20%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLRR	K	A	84.80%	3.17	0.16	0	0	1	0	2	2,265.04	239	258	TRUE	
SNU216LR_PC3_03	Isoform 2 of DNA-binding protein A	IPI00219147	31,946.60	99.90%	1	1	1	0.01%	16.80%	SPVGSGAPQAAAPAPAAHVAGNPGGDAA	K	K	95.00%	5.07	0.49	0	0	0	1	2	4,459.08	34	84	TRUE	
SNU216LR_PC3_03	PREDICTED: similar to basic leucine zipper and W	IPI00005681	34,091.00	99.90%	1	1	1	0.01%	4.70%	NAEEESESEAEEGD	K	-	79.80%	1.87	0.255	0	1	0	0	2	1,604.51	285	298	TRUE	
SNU216LR_PC3_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	8	0.05%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.72	0.353	0	1	1	1	2	2,299.14	176	198	TRUE	
SNU216LR_PC3_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	8	0.05%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	4.07	0.396	0	1	2	1	2	2,184.10	472	489	TRUE	
SNU216LR_PC3_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	8	0.05%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.05	0.446	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216LR_PC3_03	EH-domain-containing protein 1	IPI00017184	60,629.10	100.00%	1	2	3	0.02%	3.37%	DKPTYDEIFYTLSPVNGK	K	I	95.00%	3.35	0.386	0	2	1	0	2	2,167.00	444	461	TRUE	
SNU216LR_PC3_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	2	2	2	0.01%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	2.88	0.286	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216LR_PC3_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	2	2	2	0.01%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE	K	G	95.00%	5.22	0.385	0	0	1	1	2	3,462.56	246	276	TRUE	
SNU216LR_PC3_03	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	3	0.02%	6.02%	GDSESEEDEDLEVPVPSR	K	F	95.00%	3.14	0.495	0	1	0	0	2	2,148.79	75	92	TRUE	
SNU216LR_PC3_03	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	3	0.02%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	3.48	0.424	0	1	1	0	2	2,633.05	70	92	TRUE	
SNU216LR_PC3_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	4	4	0.02%	7.90%	GLNTSQESDDDILDESSSPEGTQK	R	V	95.00%	4.24	0.601	0	1	1	0	2	2,632.08	223	246	TRUE	
SNU216LR_PC3_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	4	4	0.02%	7.90%	LQALAEEPSQPHTRSPAK	K	N	95.00%	3.96	0.348	0	0	1	0	2	2,039.99	177	194	TRUE	
SNU216LR_PC3_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	4	4	0.02%	7.90%	SSSVPHPFQVTLLR	K	N	95.00%	2.55	0.24	0	0	1	0	2	1,647.83	576	589	TRUE	
SNU216LR_PC3_03	Insulin receptor tyrosine kinase substrate	IPI00179326	56,883.90	100.00%	1	1	1	0.01%	3.72%	TPASTPVSGTPQASPMIER	K	S	95.00%	3.82	0.502	0	1	0	0	2	2,006.93	248	266	TRUE	
SNU216LR_PC3_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	4	4	0.02%	10.40%	RPHTPTPGIYMGR	K	P	95.00%	2.92	0.306	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC3_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	4	4	0.02%	10.40%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.37	0.232	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC3_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	4	4	0.02%	10.40%	RRSPSPYYSR	R	D	92.70%	2.05	0.235	0	0	1	0	2	1,348.62	262	271	TRUE	IPI00013891
SNU216LR_PC3_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	4	4	0.02%	10.40%	RSPSPYYSR	R	D	93.60%	1.98	0.213	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	12	0.07%	19.80%	IVEPEVVGESDSEVEGDAWR	K	M	95.00%	4.59	0.47	0	1	0	0	2	2,281.99	107	126	TRUE	
SNU216LR_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	12	0.07%	19.80%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	5.13	0.533	0	1	2	0	2	2,410.08	106	126	TRUE	
SNU216LR_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	12	0.07%	19.80%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	3.46	0.34	0	1	2	0	2	2,786.98	127	147	TRUE	
SNU216LR_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	12	0.07%	19.80%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	3.16	0.338	0	0	1	0	2	2,642.06	44	64	TRUE	
SNU216LR_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	12	0.07%	19.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	4.24	0.398	0	0	2	0	2	2,770.16	44	65	TRUE	
SNU216LR_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	12	0.07%	19.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.32	0.598	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216LR_PC3_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	1	3	8	0.05%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.42	0.596	0	3	3	2	2	2,205.10	225	244	TRUE	
SNU216LR_PC3_03	Septin-2	IPI00014177	41,488.20	100.00%	2	4	4	0.02%	5.54%	IYHLPDAESDEDEDFK	K	E	92.40%	2.54	0.215	0	1	0	0	2	2,002.80	210	225	TRUE	
SNU216LR_PC3_03	Septin-2	IPI00014177	41,488.20	100.00%	2	4	4	0.02%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.62	0.417	0	1	1	1	2	2,517.05	210	229	TRUE	
SNU216LR_PC3_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	94,258.30	99.80%	2	2	2	0.01%	4.86%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.17	0.414	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216LR_PC3_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	94,258.30	99.80%	2	2	2	0.01%	4.86%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	4.72	0.091	0	1	0	0	2	2,009.92	238	257	TRUE	
SNU216LR_PC3_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	GADNDGSGSESGYTTPK	K	K	95.00%	3.47	0.463	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216LR_PC3_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	NDSWGSFDLR	R	A	95.00%	2.1	0.27	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC3_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	RTSPQVLGSILK	K	S	95.00%	3.11	0.182	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216LR_PC3_03	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.23	0.269	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216LR_PC3_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.96	0.353	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC3_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.45	0.54	0	3	2	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC3_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.86	0.481	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216LR_PC3_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	9	0.05%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.16	0.433	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216LR_PC3_03	protein kinase, AMP-activated, alpha 1 catalytic s	IPI00011891,IPI00410287	64,010.80	100.00%	1	2	2	0.01%	4.47%	DFYLATSPPDSFLDDHHLTRPHPER	K	V	95.00%	3.44	0.298	0	0	1	1	2	3,043.37	350	374	TRUE	
SNU216LR_PC3_03	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.60%	2	2	2	0.01%	5.24%	KVTAEADSSSPTGILATSESK	R	S	95.00%	2.52	0.306	0	1	0	0	2	2,159.01	485	505	TRUE	
SNU216LR_PC3_03	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.60%	2	2	2	0.01%	5.24%	SMPVLGSVSSVTK	K	T	91.60%	1.96	0.236	0	1	0	0	2	1,371.66	506	518	TRUE	
SNU216LR_PC3_03	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	FASDDEHDEHDENGATGPVK	K	R	95.00%	3.24	0.349	0	1	1	0	2	2,249.86	364	383	TRUE	
SNU216LR_PC3_03	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	3.85	0.531	0	1	2	2	2	2,405.96	364	384	TRUE	
SNU216LR_PC3_03	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	3.28	0.366	0	0	2	0	2	2,479.00	362	383	TRUE	
SNU216LR_PC3_03	Lupus La protein	IPI00009032	46,839.00	100.00%	4	8	12	0.07%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.27	0.501	0	0	1	2	2	2,635.11	362	384	TRUE	
SNU216LR_PC3_03	activating transcription factor 2	IPI00234446	54,536.40	99.40%	2	2	2	0.01%	10.50%	NDSVIVADQTPTPTR	R	F	87.10%	2.41	0.159	0	1	0	0	2	1,773.75	60	74	TRUE	
SNU216LR_PC3_03	activating transcription factor 2	IPI00234446	54,536.40	99.40%	2	2	2	0.01%	10.50%	TQSEESRPQSLQQPATSTTETPASPAHTTPQ	R	R	95.00%	6.46	0.0777	0	0	0	1	2	4,090.86	305	342	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	ETQSPEQVKSEK	K	L	95.00%	2.71	0.346	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.98	0.561	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	5.38	0.436	0	0	1	0	2	2,726.13	369	391	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	KAEGEPQEESPLK	K	S	95.00%	3.62	0.373	0	1	1	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	KAEGEPQEESPLKSK	K	S	95.00%	3.91	0.405	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	LKDLFDYSPPLHK	K	N	95.00%	2.45	0.19	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.65	0.46	0	1	1	0	2	2,257.84	392	409	TRUE	
SNU216LR_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	8	12	12	0.07%	11.00%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.98	0.378	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216LR_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.13	0.518	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.80%	FSPGAPGGSGSQPNQK	K	L	95.00%	3	0.429	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216LR_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.26	0.246	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.80%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	3.56	0.404	0	0	1	0	2	1,912.96	264	282	TRUE	
SNU216LR_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.64	0.364	0	1	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.80%	SPGAPGPLTLK	R	E	95.00%	1.95	0.35	1	0	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	7	9	9	0.05%	15.80%	VSSIDLEIDSLSSLLDDMTK	K	N	95.00%	4	0.415	0	1	0	0	2	2,261.05	151	170	TRUE	
SNU216LR_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	6	6	0.04%	10.00%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.71	0.247	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216LR_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	6	6	0.04%	10.00%	ATDSDLSSPR	K	H	95.00%	2.19	0.214	0	1	0	0	2	1,128.46	351	360	TRUE	
SNU216LR_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	6	6	0.04%	10.00%	HDSPDPSPPR	R	R	95.00%	2.14	0.357	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216LR_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	6	6	0.04%	10.00%	HDSPDPSPPRR	R	P	95.00%	2.1	0.313	0	1	0	0	2	1,420.54	195	205	TRUE	
SNU216LR_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	6	6	0.04%	10.00%	HDTPDPSPLR	R	G	95.00%	2.14	0.237	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216LR_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	6	6	0.04%	10.00%	VRHDSPDPSPPRR	R	A	88.20%	2.58	0.163	0	0	1	0	2	1,675.71	218	230	TRUE	
SNU216LR_PC3_03	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	1	1	1	0.01%	3.65%	ASEDTTSGSPPKKSSAGPK	R	R	95.00%	3.3	0.279	0	0	1	0	2	1,911.87	456	474	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	3	3	0.02%	9.16%	RPEGPGAQAPSSPR	R	V	95.00%	3.5	0.294	0	1	1	0	2	1,486.68	504	517	TRUE	
SNU216LR_PC3_03	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	3	3	0.02%	9.16%	SSPGQPEAGPEGAQERPSQAAPAVEAEGP(	K	K	95.00%	4.81	0.485	0	0	1	0	2	3,564.60	18	53	TRUE	
SNU216LR_PC3_03	Histone deacetylase 1	IPI00013774	55,104.10	100.00%	2	3	11	0.07%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	R	95.00%	6	0.498	0	0	1	0	2	3,555.48	372	403	TRUE	
SNU216LR_PC3_03	Histone deacetylase 1	IPI00013774	55,104.10	100.00%	2	3	11	0.07%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	I	95.00%	6.27	0.524	0	0	5	5	2	3,711.58	372	404	TRUE	
SNU216LR_PC3_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	3	3	0.02%	3.86%	SKPIPIMPASPQK	K	G	95.00%	2.91	0.244	0	1	1	0	2	1,473.75	596	608	TRUE	
SNU216LR_PC3_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	3	3	0.02%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	4.72	0.603	0	0	1	0	2	3,011.63	596	623	TRUE	
SNU216LR_PC3_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	2	3	0.02%	2.84%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.12	0.299	0	0	2	0	2	2,672.22	157	179	TRUE	
SNU216LR_PC3_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	2	3	0.02%	2.84%	TGSGSPFAGNSPAR	K	E	95.00%	2.49	0.25	0	1	0	0	2	1,385.58	1265	1278	TRUE	
SNU216LR_PC3_03	Isoform 1 of Phosphoacetylglucosamine mutase	IPI00030116	59,852.40	100.00%	1	2	2	0.01%	3.69%	STIGVMVTASHNPEEDNGVK	K	L	95.00%	3.76	0.362	0	1	1	0	2	2,164.96	55	74	TRUE	
SNU216LR_PC3_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	4	0.02%	5.63%	GFAFVTFESPADAK	R	D	88.80%	2.15	0.198	0	1	0	0	2	1,566.69	50	63	TRUE	
SNU216LR_PC3_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	4	0.02%	5.63%	GLPPSMER	R	G	95.00%	1.96	0.323	0	3	0	0	2	966.4116	348	355	TRUE	
SNU216LR_PC3_03	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	GEEGSDDDETENGPKPK	K	K	95.00%	3.31	0.548	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216LR_PC3_03	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	KGSGSEQEGEDEEGGER	R	K	95.00%	1.65	0.45	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216LR_PC3_03	Bifunctional coenzyme A synthase	IPI00184821	62,329.50	100.00%	1	2	2	0.01%	6.91%	LASVLLYSDYGIGEVPVEPLDVPLPSTIRPASF	R	Q	95.00%	8.57	0.0384	0	0	1	1	2	4,084.13	147	185	TRUE	
SNU216LR_PC3_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	99.00%	2	2	2	0.01%	2.49%	IHEKDPNSATATAPPSPLKR	K	R	95.00%	3.53	0.31	0	0	1	0	2	2,210.10	146	165	TRUE	
SNU216LR_PC3_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	99.00%	2	2	2	0.01%	2.49%	VTENGGSPQGIKSPSKPPGPNR	K	I	79.60%	3.02	0.178	0	0	1	0	2	2,284.11	30	51	TRUE	
SNU216LR_PC3_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	6	0.04%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.89	0.44	0	3	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC3_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	6	0.04%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.26	0.43	0	0	2	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC3_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	18.10%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	4.66	0.418	0	1	0	0	2	2,017.81	298	317	TRUE	
SNU216LR_PC3_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	18.10%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.22	0.0279	0	1	1	0	2	2,027.92	76	93	TRUE	
SNU216LR_PC3_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	18.10%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	K	V	95.00%	7.96	0.568	0	0	1	0	2	4,229.03	209	247	TRUE	
SNU216LR_PC3_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	6	6	0.04%	18.10%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	3.86	0.263	0	1	1	0	2	3,019.41	318	347	TRUE	
SNU216LR_PC3_03	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	4.03	0.341	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216LR_PC3_03	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	4.58	0.385	0	0	1	0	2	2,687.26	674	699	TRUE	
SNU216LR_PC3_03	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	2	3	4	0.02%	12.10%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	6.34	0.458	0	1	2	0	2	2,812.17	391	415	TRUE	
SNU216LR_PC3_03	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	2	3	4	0.02%	12.10%	SSISSVLKDPDSNPYSLLDNTESDQTADTDA	K	R	95.00%	7.9	0.031	0	0	0	1	2	4,400.89	463	502	TRUE	
SNU216LR_PC3_03	phosphoglucomutase 1	IPI00219526	61,451.10	100.00%	1	2	2	0.01%	4.09%	AIGGIILTASHNPGGPNGDFGIK	K	F	95.00%	4.01	0.458	0	1	1	0	2	2,286.13	108	130	TRUE	
SNU216LR_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	7	10	12	0.07%	10.30%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.8	0.488	0	2	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	7	10	12	0.07%	10.30%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.37	0.405	0	2	1	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	7	10	12	0.07%	10.30%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	3.41	0.382	0	1	0	0	2	2,042.89	480	499	TRUE	
SNU216LR_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	7	10	12	0.07%	10.30%	AKAGLESGAEPGDGDSDTTKK	K	K	95.00%	3.52	0.214	0	0	1	0	2	2,113.93	478	498	TRUE	
SNU216LR_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	7	10	12	0.07%	10.30%	EVELVSE	K	-	85.70%	1.65	0.253	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216LR_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	7	10	12	0.07%	10.30%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	5.69	0.55	0	0	1	1	2	2,846.39	19	42	TRUE	
SNU216LR_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	7	10	12	0.07%	10.30%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.54	0.509	0	0	1	1	2	2,718.29	20	42	TRUE	
SNU216LR_PC3_03	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	ETSPQVKGEEMPAGKDQEASR	K	G	95.00%	3.25	0.36	0	0	1	0	2	2,354.03	109	129	TRUE	
SNU216LR_PC3_03	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	RAPSSPVAKPGPVK	K	T	95.00%	2.14	0.339	0	1	0	0	2	1,470.78	11	24	TRUE	
SNU216LR_PC3_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	2	3	3	0.02%	4.77%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	3.9	0.531	0	1	1	0	2	2,450.06	90	113	TRUE	
SNU216LR_PC3_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	2	3	3	0.02%	4.77%	TPEGRASPAPGSGHPEGPGAHLDMNSLDR	K	A	95.00%	4.93	0.299	0	0	0	1	2	2,990.32	85	113	TRUE	
SNU216LR_PC3_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.80%	2	2	2	0.01%	3.35%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.69	0.537	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216LR_PC3_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.80%	2	2	2	0.01%	3.35%	VSAGEPGSHPSPAPR	K	R	95.00%	2.81	0.435	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216LR_PC3_03	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	1	1	1	0.01%	7.24%	QASEQENEDSMAEAPESNHPEDQETMETI!	K	G	95.00%	4.09	0.184	0	0	0	1	2	4,177.64	296	331	TRUE	
SNU216LR_PC3_03	Membrane-associated tyrosine- and threonine-sp	IPI00384765,IPI00742852	54,522.70	99.80%	2	2	2	0.01%	8.22%	DALDLSDINSEPPR	R	G	95.00%	2.68	0.2	0	1	0	0	2	1,621.71	464	477	TRUE	
SNU216LR_PC3_03	Membrane-associated tyrosine- and threonine-sp	IPI00384765,IPI00742852	54,522.70	99.80%	2	2	2	0.01%	8.22%	GEASETLQSPGYDPSRPESFFQQSFQR	R	L	95.00%	3.84	0.313	0	0	1	0	2	3,155.37	86	112	TRUE	
SNU216LR_PC3_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	5.86%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	4.46	0.554	0	1	1	0	2	2,669.00	89	113	TRUE	
SNU216LR_PC3_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	5.86%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	4.55	0.412	0	0	1	1	2	2,797.10	89	114	TRUE	
SNU216LR_PC3_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	5.86%	GNDSDGEGESDDPEK	K	K	95.00%	3.17	0.634	0	1	0	0	2	1,630.54	99	113	TRUE	
SNU216LR_PC3_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	5.86%	GNDSDGEGESDDPEKK	K	K	94.40%	2.26	0.233	0	0	1	0	2	1,758.63	99	114	TRUE	
SNU216LR_PC3_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	4.47	0.454	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC3_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	2	2	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	2.58	0.294	0	1	1	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC3_03	Protein AATF	IPI00302238	63,293.10	99.80%	1	2	2	0.01%	3.38%	AGDRNSEDDGVVMTFSSVK	R	V	95.00%	5.05	0.524	0	1	1	0	2	2,093.88	198	216	TRUE	
SNU216LR_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	5	5	0.03%	6.99%	LRLSPSPTSQR	R	S	95.00%	1.94	0.3	0	1	0	0	2	1,401.63	387	397	TRUE	
SNU216LR_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	5	5	0.03%	6.99%	NKSNEDQSMGNWQIK	K	R	95.00%	4.26	0.484	0	1	1	0	2	1,858.78	456	470	TRUE	
SNU216LR_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	5	5	0.03%	6.99%	SGAQASSTPLSPTR	R	I	95.00%	2.87	0.254	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216LR_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	5	5	0.03%	6.99%	SNEDQSMGNWQIK	K	R	95.00%	2.56	0.361	0	1	0	0	2	1,616.64	458	470	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.48%	AVPAPSPGPTHNSPELGRPPAAGVLAPDM!	R	C	95.00%	4.11	0.191	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.48%	HGSDPAFAPGPR	R	G	95.00%	2.56	0.454	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.48%	RGSLTLTISGESPK	R	A	95.00%	3.68	0.394	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.48%	RGSPTTGFIEQK	R	G	95.00%	2.67	0.236	0	0	1	0	2	1,400.66	890	901	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.48%	RGSPVPPVPER	R	R	88.90%	2.03	0.218	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.48%	RLSLGQGDSTEAATEER	R	G	95.00%	4.43	0.512	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC3_03	Cytosolic purine 5'-nucleotidase	IPI00029054	64,972.50	99.80%	1	2	2	0.01%	5.17%	AAHVLMPHESTVEHTHVDINEMESPLATR	R	N	95.00%	5.22	0.489	0	0	1	1	2	3,331.52	479	507	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	14	18	0.11%	4.56%	EISDDEAEEEK	K	G	95.00%	3.01	0.486	0	0	1	0	2	1,373.50	223	233	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	14	18	0.11%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.35	0.423	0	1	1	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	14	18	0.11%	4.56%	EKEISDDEAEEEK	K	G	95.00%	2.93	0.368	0	1	1	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	14	18	0.11%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.82	0.469	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	14	18	0.11%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.97	0.494	1	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	14	18	0.11%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.46	0.491	0	3	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	14	18	0.11%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.87	0.368	0	3	1	1	2	1,945.79	249	265	TRUE	
SNU216LR_PC3_03	Protein kinase C and casein kinase substrate in ne	IPI00329572	48,531.80	100.00%	4	5	5	0.03%	11.30%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	4.89	0.438	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216LR_PC3_03	Protein kinase C and casein kinase substrate in ne	IPI00329572	48,531.80	100.00%	4	5	5	0.03%	11.30%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	4.84	0.0299	0	1	0	0	2	3,118.29	334	362	TRUE	
SNU216LR_PC3_03	Protein kinase C and casein kinase substrate in ne	IPI00329572	48,531.80	100.00%	4	5	5	0.03%	11.30%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	3.67	0.303	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216LR_PC3_03	Protein kinase C and casein kinase substrate in ne	IPI00329572	48,531.80	100.00%	4	5	5	0.03%	11.30%	GGRSPDEVTLTSIVPTR	K	D	95.00%	2.86	0.334	0	0	1	0	2	1,864.92	317	333	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 2 subunit 3	IPI00297982	50,979.00	100.00%	1	2	2	0.01%	7.01%	ESQAKEQYEQILAFVQGTVAEGAPIIPISAQL	K	Y	95.00%	4.08	0.252	0	0	1	1	2	3,716.82	196	228	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	98.90%	1	1	1	0.01%	2.69%	QAGAPGGSSGSGGSPELSALR	R	L	95.00%	4.35	0.131	0	1	0	0	2	1,922.86	527	547	TRUE	
SNU216LR_PC3_03	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.80%	2	3	3	0.02%	3.18%	SPPTQVAISSDSAR	R	K	95.00%	2.99	0.455	0	1	0	0	2	1,495.68	201	214	TRUE	
SNU216LR_PC3_03	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.80%	2	3	3	0.02%	3.18%	VTRSPPTQVAISSDSAR	R	K	95.00%	3.44	0.265	0	1	1	0	2	1,851.90	198	214	TRUE	
SNU216LR_PC3_03	T-complex protein 1 subunit alpha	IPI00290566	60,345.20	100.00%	1	1	1	0.01%	3.24%	DDKHGSYEDAVHSGALND	K	-	88.40%	2.56	0.181	0	0	1	0	2	2,009.79	539	556	TRUE	
SNU216LR_PC3_03	56 kDa protein	IPI00337602,IPI00373877	55,569.20	99.80%	2	2	2	0.01%	3.85%	ISLSKSPTKTDPK	K	N	95.00%	2.58	0.216	0	1	0	0	2	1,481.76	176	188	TRUE	
SNU216LR_PC3_03	56 kDa protein	IPI00337602,IPI00373877	55,569.20	99.80%	2	2	2	0.01%	3.85%	SPTKTDPKNEEEEK	K	R	95.00%	2.4	0.319	0	1	0	0	2	1,711.74	181	194	TRUE	
SNU216LR_PC3_03	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	99.80%	2	2	2	0.01%	2.29%	NASASFQELEDK	R	K	95.00%	2.25	0.289	0	1	0	0	2	1,498.55	45	56	TRUE	
SNU216LR_PC3_03	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	99.80%	2	2	2	0.01%	2.29%	NASASFQELEDKK	R	E	95.00%	2.73	0.474	0	1	0	0	2	1,546.68	45	57	TRUE	
SNU216LR_PC3_03	Methylosome subunit pICln	IPI00004795	26,215.40	99.80%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	5.59	0.569	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216LR_PC3_03	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	2	2	2	0.01%	12.20%	ASPATQPPPLLPPSATGPDATVGGPAPTPLL	R	M	95.00%	3.09	0.327	0	0	1	0	2	3,806.96	57	96	TRUE	
SNU216LR_PC3_03	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	2	2	2	0.01%	12.20%	SGSMDPSGAHPSVR	R	Q	87.70%	2.29	0.191	0	1	0	0	2	1,480.59	18	31	TRUE	
SNU216LR_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.10%	GNSRPGTPSAEGGSTSSTLR	R	A	95.00%	3.54	0.455	0	1	2	0	2	1,998.89	383	402	TRUE	
SNU216LR_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.10%	GVDEQSDSSEESEEEKPPEEDKEEEEEK	K	K	95.00%	4.89	0.344	0	0	1	0	2	3,332.29	300	327	TRUE	
SNU216LR_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.10%	IHDLEDDLEMSSDASDASGEEGGR	R	V	95.00%	4.54	0.506	0	1	1	0	2	2,615.01	207	230	TRUE	
SNU216LR_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.10%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	5.61	0.515	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216LR_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.10%	KAPTPQEK	K	K	90.70%	1.72	0.287	0	1	0	0	2	978.4658	328	335	TRUE	
SNU216LR_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	6	8	9	0.05%	19.10%	TTPNSGDVQVTEDAVR	K	R	95.00%	3.13	0.399	0	1	0	0	2	1,768.78	445	460	TRUE	
SNU216LR_PC3_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	4	4	0.02%	4.27%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	4.15	0.367	0	1	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC3_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	4	4	0.02%	4.27%	ATSPVKSTTSITDAK	K	S	95.00%	3.01	0.405	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC3_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	4	4	0.02%	4.27%	NKASPQSEFMPSK	K	G	95.00%	2.84	0.329	0	1	0	0	2	1,530.67	789	801	TRUE	
SNU216LR_PC3_03	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	3	3	3	0.02%	8.85%	AETSEGSGSAPAVPEASASPK	K	Q	95.00%	3.35	0.392	0	0	1	0	2	2,009.87	74	94	TRUE	
SNU216LR_PC3_03	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	3	3	3	0.02%	8.85%	EGKHEPVQPSAHHSAEPAEAGKAETSEGSG	K	Q	95.00%	4.61	0.299	0	0	0	1	2	4,283.95	52	94	TRUE	
SNU216LR_PC3_03	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	3	3	3	0.02%	8.85%	HEPVQPSAHHSAEPAEAGKAETSEGSGSAP	K	Q	95.00%	5.32	0.489	0	0	0	1	2	3,969.79	55	94	TRUE	
SNU216LR_PC3_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.57	0.405	0	2	0	0	2	1,617.62	79	92	TRUE	
SNU216LR_PC3_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.56	0.238	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216LR_PC3_03	251 kDa protein	IPI00177743	251,116.00	99.80%	2	2	2	0.01%	1.71%	DQTLFSVLVRPPPPLSSVFSEQAK	K	K	95.00%	3.21	0.198	0	0	0	1	2	2,882.32	1528	1551	TRUE	
SNU216LR_PC3_03	251 kDa protein	IPI00177743	251,116.00	99.80%	2	2	2	0.01%	1.71%	TKSPKPAESPQSATK	K	Q	95.00%	2.82	0.33	0	0	1	0	2	1,636.79	1035	1049	TRUE	
SNU216LR_PC3_03	Neurogenic locus notch homolog protein 2 precu	IPI00297655,IPI00744005	265,395.10	99.80%	2	2	2	0.01%	1.70%	AEDEALLSEEDDPIDR	K	R	95.00%	2.47	0.355	0	1	0	0	2	1,896.78	1771	1786	TRUE	
SNU216LR_PC3_03	Neurogenic locus notch homolog protein 2 precu	IPI00297655,IPI00744005	265,395.10	99.80%	2	2	2	0.01%	1.70%	TQLLYLLAVAVVIILFIILLGVIMAK	R	R	95.00%	1.2	0.527	0	0	0	1	2	2,920.77	1676	1701	TRUE	
SNU216LR_PC3_03	CDA02	IPI00012462	67,852.50	100.00%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.46	0.345	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216LR_PC3_03	Isoform Delta-1 of Serine/threonine-protein phos	IPI00000030	69,994.40	99.90%	1	1	1	0.01%	2.16%	RKSELPQDVYTIK	R	A	95.00%	2.44	0.219	0	0	1	0	2	1,656.84	571	583	TRUE	
SNU216LR_PC3_03	THO complex subunit 1	IPI00305374	75,668.80	100.00%	2	2	2	0.01%	5.02%	ELPPPSEEIKTGEDEDEEDNDALLKENESPD\	K	R	89.50%	3.22	0.179	0	0	0	1	2	3,818.67	532	564	TRUE	
SNU216LR_PC3_03	THO complex subunit 1	IPI00305374	75,668.80	100.00%	2	2	2	0.01%	5.02%	TGEDEDEEDNDALLKENESPDVR	K	R	95.00%	4.77	0.465	0	0	1	0	2	2,699.08	542	564	TRUE	
SNU216LR_PC3_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	13.80%	AGDLLEDSPK	R	R	95.00%	2	0.231	1	0	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC3_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	13.80%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.63	0.361	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC3_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	13.80%	RAGDLLEDSPK	R	R	94.30%	2.27	0.203	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216LR_PC3_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SGEGEVSGLMR	R	K	95.00%	2.19	0.311	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216LR_PC3_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.6	0.293	0	0	1	0	2	1,444.63	471	483	TRUE	
SNU216LR_PC3_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	5	5	0.03%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	3.59	0.376	0	1	1	0	2	1,857.81	312	327	TRUE	
SNU216LR_PC3_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	5	5	0.03%	6.69%	SPFNSPSPQDSPR	K	L	95.00%	3.69	0.483	0	1	0	0	2	1,495.62	333	345	TRUE	
SNU216LR_PC3_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	5	5	0.03%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	3.95	0.479	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216LR_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	4	7	13	0.08%	9.99%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	2.95	0.43	0	1	1	0	2	2,540.96	240	261	TRUE	
SNU216LR_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	4	7	13	0.08%	9.99%	DSHSSEEDEASSQTDLSQTISKK	R	T	88.70%	5.83	0.0298	0	0	1	0	2	2,669.05	240	262	TRUE	
SNU216LR_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	4	7	13	0.08%	9.99%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.96	0.57	0	1	3	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	4	7	13	0.08%	9.99%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	6	0.527	0	2	4	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	3.95%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.33	0.275	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216LR_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	3.95%	ENASPAPGTTAEEAMSR	R	G	95.00%	2.73	0.294	0	1	0	0	2	1,814.73	964	980	TRUE	
SNU216LR_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	3.95%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.46	0.455	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216LR_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	3.95%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.51	0.429	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216LR_PC3_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	1	1	1	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	3.82	0.342	0	0	0	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC3_03	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	1	1	1	0.01%	3.00%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.37	0.381	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216LR_PC3_03	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	2	2	3	0.02%	5.62%	KILDPNTGEPAPVLSSPPPADVSTFLAFPSPEK	K	L	95.00%	6.28	0.458	0	0	2	0	2	3,370.65	414	445	TRUE	
SNU216LR_PC3_03	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	2	2	3	0.02%	5.62%	KILDPNTGEPAPVLSSPPPADVSTFLAFPSPE	R	L	80.60%	5.93	0.0429	0	0	1	0	2	3,498.74	413	445	TRUE	
SNU216LR_PC3_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	3	4	0.02%	2.67%	KMEESDEEAVQAK	R	V	95.00%	3.49	0.345	0	2	0	0	2	1,573.65	688	700	TRUE	
SNU216LR_PC3_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	3	4	0.02%	2.67%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.26	0.455	0	0	1	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC3_03	Heat shock protein 60	IPI00472102	61,213.90	100.00%	1	1	1	0.01%	2.09%	TVIIEQSWGSPK	R	V	95.00%	3.47	0.322	0	1	0	0	2	1,424.68	61	72	TRUE	
SNU216LR_PC3_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	87.10%	2.6	0.147	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC3_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.83	0.238	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216LR_PC3_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	2	2	0.01%	3.43%	VALSDDETKETENMR	R	K	95.00%	2.77	0.377	0	1	0	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC3_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	2	2	0.01%	3.43%	VALSDDETKETENMRK	R	K	95.00%	3.97	0.349	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216LR_PC3_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	4	0.02%	1.56%	PMEEDGEEKSPSK	K	K	95.00%	2.55	0.358	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216LR_PC3_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	4	0.02%	1.56%	RPMEEDGEEKSPSK	K	K	95.00%	4.18	0.457	0	1	2	0	2	1,698.70	372	385	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	V	95.00%	3.14	0.501	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.02	0.449	0	0	1	0	2	3,054.38	478	503	TRUE	
SNU216LR_PC3_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.50%	2	2	2	0.01%	2.40%	RVNDAEPGSPEAPQGK	R	R	89.40%	2.28	0.262	0	0	1	0	2	1,731.77	75	90	TRUE	
SNU216LR_PC3_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.50%	2	2	2	0.01%	2.40%	VNDAEPGSPEAPQGK	R	R	95.00%	3.35	0.433	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216LR_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	9	0.05%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.19	0.319	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	9	0.05%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.16	0.513	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	9	0.05%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.07	0.487	0	2	1	0	2	1,814.83	362	377	TRUE	
SNU216LR_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	9	0.05%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	4.41	0.48	0	0	2	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC3_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.90%	2	2	2	0.01%	5.48%	DLSPTLIDNSAAK	R	Q	90.50%	2.3	0.176	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216LR_PC3_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.90%	2	2	2	0.01%	5.48%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	4.36	0.425	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC3_03	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.90%	2	3	3	0.02%	10.50%	AVSETPAVPPVSEDEDDDDDDATPPPVIAPI	K	S	95.00%	5.89	0.552	0	0	1	1	2	3,888.73	163	198	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.90%	2	3	3	0.02%	10.50%	DVATSPISPTENNTTPPDALTR	R	N	95.00%	5.18	0.0078	0	1	0	0	2	2,377.09	216	237	TRUE	
SNU216LR_PC3_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	99.90%	2	3	4	0.02%	6.68%	SSSESYTQSFQSR	R	K	95.00%	2.65	0.371	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216LR_PC3_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	99.90%	2	3	4	0.02%	6.68%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.34	0.46	0	2	1	0	2	1,847.75	38	56	TRUE	
SNU216LR_PC3_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	18.30%	PVSSAASVYAGAGGSGSR	R	I	95.00%	2.68	0.411	0	1	1	0	2	1,660.73	28	45	TRUE	
SNU216LR_PC3_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	18.30%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	88.90%	6.81	0.0098	0	0	0	1	2	3,993.83	51	90	TRUE	
SNU216LR_PC3_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	18.30%	TVQSLEIDLDSMR	R	N	95.00%	2.59	0.226	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216LR_PC3_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	18.30%	VRSLETENR	R	R	95.00%	2.1	0.313	0	1	0	0	2	1,183.55	98	106	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	7	7	0.04%	10.40%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	5.48	0.544	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	7	7	0.04%	10.40%	RSPVSTRPLPSASQK	R	A	95.00%	2.43	0.339	0	1	0	0	2	1,690.86	215	229	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	7	7	0.04%	10.40%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	5	0.591	0	1	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	7	7	0.04%	10.40%	SSPQLDPLR	R	K	95.00%	1.9	0.398	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	7	7	0.04%	10.40%	SSPQLDPLRK	R	S	88.50%	2.07	0.247	0	0	1	0	2	1,220.60	182	191	TRUE	
SNU216LR_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	7	7	0.04%	10.40%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	4.9	0.327	0	0	0	1	2	3,491.75	182	214	TRUE	
SNU216LR_PC3_03	Matrin-3	IPI00017297	94,626.70	99.80%	2	3	3	0.02%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.61	0.362	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC3_03	Matrin-3	IPI00017297	94,626.70	99.80%	2	3	3	0.02%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.67	0.366	0	1	0	0	2	1,604.68	596	609	TRUE	
SNU216LR_PC3_03	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	1	1	1	0.01%	7.81%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.24	0.23	0	0	1	0	2	2,544.30	33	57	TRUE	
SNU216LR_PC3_03	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	99.80%	2	3	3	0.02%	3.24%	EGRGESENAGTNQETR	R	S	95.00%	3.08	0.259	0	1	1	0	2	1,814.73	426	441	TRUE	
SNU216LR_PC3_03	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	99.80%	2	3	3	0.02%	3.24%	GESENAGTNQETR	R	S	95.00%	3.05	0.391	0	1	0	0	2	1,472.57	429	441	TRUE	
SNU216LR_PC3_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	3.22	0.357	0	2	0	0	2	1,529.66	311	325	TRUE	
SNU216LR_PC3_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	4.99	0.576	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216LR_PC3_03	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	99.80%	2	3	4	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	95.00%	3.43	0.258	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216LR_PC3_03	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	99.80%	2	3	4	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.74	0.52	0	2	1	0	2	2,394.07	428	451	TRUE	
SNU216LR_PC3_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	7	8	0.05%	23.00%	EEDEEPESPPEKK	K	T	95.00%	2.56	0.335	0	1	1	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC3_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	7	8	0.05%	23.00%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	4.55	0.572	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC3_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	7	8	0.05%	23.00%	NSQEDSEDSEDKDVK	K	T	95.00%	2.84	0.35	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216LR_PC3_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	7	8	0.05%	23.00%	SGKNSQEDSEDSEDKDVK	K	T	95.00%	1.88	0.43	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216LR_PC3_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	5	7	8	0.05%	23.00%	TPSPKEEDEEPESPPEKK	K	T	79.60%	3.56	0.0966	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216LR_PC3_03	septin 9	IPI00748715	63,634.10	100.00%	1	2	2	0.01%	2.82%	SFEVEEVETPNSTPPR	R	R	95.00%	3.87	0.489	0	1	1	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC3_03	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	7	0.04%	14.10%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	5.01	0.555	0	1	2	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC3_03	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	7	0.04%	14.10%	HASPILPITEFSDIPR	K	R	95.00%	3.26	0.31	0	1	1	0	2	1,872.93	304	319	TRUE	
SNU216LR_PC3_03	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	7	0.04%	14.10%	QNGSNDSDRYSDNEEDSK	R	I	80.40%	2.35	0.218	0	1	0	0	2	2,139.77	174	191	TRUE	
SNU216LR_PC3_03	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	5	7	0.04%	14.10%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	4.57	0.331	0	1	3	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC3_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	101,752.80	100.00%	4	4	4	0.02%	7.90%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.27	0.323	0	0	1	0	2	2,467.96	310	331	TRUE	
SNU216LR_PC3_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	101,752.80	100.00%	4	4	4	0.02%	7.90%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.36	0.365	0	0	1	0	2	2,624.06	309	331	TRUE	
SNU216LR_PC3_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	101,752.80	100.00%	4	4	4	0.02%	7.90%	SGDETPGSEVPGDK	R	A	95.00%	2.64	0.356	0	1	0	0	2	1,454.57	318	331	TRUE	
SNU216LR_PC3_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	101,752.80	100.00%	4	4	4	0.02%	7.90%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	5.84	0.414	0	0	0	1	2	4,198.92	383	418	TRUE	
SNU216LR_PC3_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	3	3	3	0.02%	5.13%	EAEDSDSDDNIKR	K	G	95.00%	2	0.397	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216LR_PC3_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	3	3	3	0.02%	5.13%	HQASDSENEELPKPR	R	I	95.00%	2.44	0.367	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216LR_PC3_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	3	3	3	0.02%	5.13%	MDSDEDEKEGEEEK	K	V	95.00%	2.81	0.192	0	1	0	0	2	1,749.60	375	388	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	KAGTATSPAGSSPAVAGGTQR	R	P	95.00%	2.92	0.205	0	0	0	1	2	2,031.89	591	611	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	KLGAGEGGEASVSPEK	K	T	95.00%	3.78	0.351	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	LDSSPSVSSTLAAK	K	D	95.00%	2.02	0.28	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	LGAGEGGEASVSPEK	K	T	95.00%	3.01	0.408	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.7	0.0883	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	SLGNILQAKPTSSPAK	K	G	95.00%	2.79	0.202	0	1	0	0	2	1,691.87	494	509	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	3.96	0.406	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	TSQVGAASAPAKESPR	K	K	95.00%	3.8	0.516	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	TSQVGAASAPAKESPRK	K	G	95.00%	3.6	0.286	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	11	11	0.07%	7.58%	TVANLLSGKSPR	K	K	95.00%	3.16	0.305	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC3_03	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.02%	7.71%	KTNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.73	0.442	0	0	0	1	2	2,525.28	405	427	TRUE	
SNU216LR_PC3_03	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.02%	7.71%	SASDNTLVAMDFSGHAGR	R	V	95.00%	4	0.477	0	1	1	0	2	1,915.80	366	383	TRUE	
SNU216LR_PC3_03	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.02%	7.71%	TNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.72	0.348	0	0	1	0	2	2,397.19	406	427	TRUE	
SNU216LR_PC3_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.02%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	7.55	0.614	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216LR_PC3_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.02%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.29	0.445	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216LR_PC3_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.02%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	95.00%	3.4	0.205	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216LR_PC3_03	Protein C19orf21	IPI00217121	75,355.70	100.00%	4	4	4	0.02%	7.66%	ALSSDSILSPAPDAR	R	A	95.00%	2.9	0.349	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216LR_PC3_03	Protein C19orf21	IPI00217121	75,355.70	100.00%	4	4	4	0.02%	7.66%	ASTPDWVSEGPQPGLR	R	R	95.00%	2.73	0.409	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216LR_PC3_03	Protein C19orf21	IPI00217121	75,355.70	100.00%	4	4	4	0.02%	7.66%	HLSESSGKPLSTK	R	Q	95.00%	2.46	0.257	0	1	0	0	2	1,450.69	469	481	TRUE	
SNU216LR_PC3_03	Protein C19orf21	IPI00217121	75,355.70	100.00%	4	4	4	0.02%	7.66%	IYASEEDD	R	-	89.50%	1.36	0.3	1	0	0	0	2	1,021.34	672	679	TRUE	
SNU216LR_PC3_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	3	3	0.02%	4.74%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	3.01	0.157	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216LR_PC3_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	3	3	0.02%	4.74%	GPHHLDNSSPGPGSEAR	R	G	95.00%	2.97	0.257	0	0	1	0	2	1,794.76	383	399	TRUE	
SNU216LR_PC3_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	3	3	0.02%	4.74%	GPPQSPVFEGVYNNSR	K	M	95.00%	3.22	0.454	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216LR_PC3_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	AIGSTSKPQESPK	R	G	95.00%	2.17	0.241	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216LR_PC3_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	AIGSTSKPQESPKGK	R	R	95.00%	3.11	0.427	0	1	1	0	2	1,594.78	231	245	TRUE	
SNU216LR_PC3_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.79	0.288	0	1	0	0	2	1,741.93	256	271	TRUE	
SNU216LR_PC3_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	5	5	0.03%	8.37%	TKPTQAAGPSSPQKPPTPEETK	K	A	95.00%	2.67	0.306	0	1	0	0	2	2,357.14	437	458	TRUE	
SNU216LR_PC3_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	99.80%	2	3	3	0.02%	2.62%	GFENVIHDKLPLQESEEEEREER	K	S	95.00%	3.93	0.403	0	0	1	0	2	2,892.31	143	165	TRUE	
SNU216LR_PC3_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	99.80%	2	3	3	0.02%	2.62%	LPLQESEEEEREER	K	S	95.00%	2.75	0.282	0	1	1	0	2	1,852.80	152	165	TRUE	
SNU216LR_PC3_03	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	1	2	2	0.01%	7.93%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	3.81	0.35	0	1	1	0	2	2,575.01	239	266	TRUE	
SNU216LR_PC3_03	Protein C2orf17	IPI00301294	57,790.20	99.00%	2	2	3	0.02%	7.37%	FLPDVSASSPEEPHSDSEGAGSGAR	R	P	80.10%	4.51	0.0702	0	0	1	0	2	2,566.07	124	148	TRUE	
SNU216LR_PC3_03	Protein C2orf17	IPI00301294	57,790.20	99.00%	2	2	3	0.02%	7.37%	QALDSEEEEEDVAAK	R	E	95.00%	4.1	0.548	0	2	0	0	2	1,742.70	381	395	TRUE	
SNU216LR_PC3_03	BC282485_1	IPI00295425	57,369.40	99.80%	2	2	2	0.01%	5.66%	GRRTPPVQPPPTR	R	E	95.00%	3.27	0.219	0	0	1	0	2	1,538.80	282	294	TRUE	
SNU216LR_PC3_03	BC282485_1	IPI00295425	57,369.40	99.80%	2	2	2	0.01%	5.66%	LGSGGSGDGPSVSWSR	R	Q	95.00%	2.36	0.317	0	1	0	0	2	1,665.63	371	386	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	GRSPRSPSGHPHVR	R	R	95.00%	3.05	0.296	0	0	1	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC3_03	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	IASDEEIQGTK	R	D	95.00%	2.06	0.347	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC3_03	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SLPTPAVLLSPTKEPPPLLAK	K	P	95.00%	2.78	0.202	0	0	1	0	2	2,249.26	632	652	TRUE	
SNU216LR_PC3_03	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	3.74	0.501	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC3_03	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SRDSGDENEPIQER	R	F	95.00%	3.11	0.363	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216LR_PC3_03	palladin	IPI00292009	122,047.90	100.00%	6	8	8	0.05%	5.79%	SRSRDSGDENEPIQER	R	F	82.80%	2.21	0.204	0	1	0	0	2	2,114.76	892	907	TRUE	
SNU216LR_PC3_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	3	4	4	0.02%	5.69%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	3.53	0.169	0	1	1	0	2	2,882.10	701	724	TRUE	
SNU216LR_PC3_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	3	4	4	0.02%	5.69%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	2.44	0.25	0	0	1	0	2	2,764.06	667	688	TRUE	
SNU216LR_PC3_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	3	4	4	0.02%	5.69%	SEDESETEDEEEK	R	S	95.00%	2.17	0.407	0	1	0	0	2	1,635.54	668	680	TRUE	
SNU216LR_PC3_03	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.04%	9.74%	DISMEIDSPENMMR	R	H	94.30%	2.23	0.242	0	1	0	0	2	1,747.67	247	260	TRUE	
SNU216LR_PC3_03	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.04%	9.74%	LDQPVSAPPSPR	K	D	95.00%	2.8	0.354	0	2	0	0	2	1,343.64	235	246	TRUE	
SNU216LR_PC3_03	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.04%	9.74%	QLSESESSLEMDDER	R	Y	95.00%	3.7	0.56	0	2	0	0	2	1,834.71	321	335	TRUE	
SNU216LR_PC3_03	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	4	4	6	0.04%	9.74%	TVSSPIPYTPSPSSSR	R	P	95.00%	2.8	0.304	0	1	0	0	2	1,742.80	349	364	TRUE	
SNU216LR_PC3_03	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	5	7	0.04%	12.40%	KYSEVDDSLPSGGEKPSK	R	N	95.00%	3.75	0.243	0	1	1	0	2	2,002.90	26	43	TRUE	
SNU216LR_PC3_03	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	5	7	0.04%	12.40%	NGTSGSDSPGQAVEAEEIVK	K	Q	95.00%	3.11	0.372	0	1	0	0	2	2,054.89	158	177	TRUE	
SNU216LR_PC3_03	CTD (carboxy-terminal domain, RNA polymerase I	IPI00033054	53,000.30	100.00%	3	5	7	0.04%	12.40%	RKSQVNGEAGSYEMTNQHVK	R	Q	95.00%	4.86	0.449	0	0	1	3	2	2,343.05	102	121	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	99.80%	1	1	1	0.01%	1.34%	KKSTSLEPVER	R	S	95.00%	2.33	0.269	0	1	0	0	2	1,353.68	370	380	TRUE	
SNU216LR_PC3_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	1	2	6	0.04%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.84	0.513	0	3	3	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC3_03	Nuclear factor 1 A-type	IPI00029745,IPI00163319,IP	54,620.20	100.00%	3	3	3	0.02%	9.23%	LKSVEDEMDSPGEEPFYTGQGR	R	S	95.00%	2.69	0.221	0	0	1	0	2	2,631.04	278	299	TRUE	
SNU216LR_PC3_03	Nuclear factor 1 A-type	IPI00029745,IPI00163319,IP	54,620.20	100.00%	3	3	3	0.02%	9.23%	SPGSGSQSSGWHEVEPGMPSPTTLK	R	K	95.00%	3.06	0.197	0	0	1	0	2	2,620.14	300	324	TRUE	
SNU216LR_PC3_03	Nuclear factor 1 A-type	IPI00029745,IPI00163319,IP	54,620.20	100.00%	3	3	3	0.02%	9.23%	SVEDEMDSPGEEPFYTGQGR	K	S	95.00%	3.95	0.497	0	1	0	0	2	2,309.89	280	299	TRUE	
SNU216LR_PC3_03	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	5.22	0.445	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216LR_PC3_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	4	5	0.03%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	5.55	0.351	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC3_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	4	5	0.03%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	4.01	0.395	0	2	1	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC3_03	Protein LYRIC	IPI00328715	63,838.40	100.00%	1	1	1	0.01%	1.55%	SETSWESPK	K	Q	86.00%	1.94	0.187	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	99.80%	2	3	3	0.02%	8.17%	RDSSESQLASTESDKPTTGR	R	V	95.00%	5.08	0.0796	0	1	1	0	2	2,231.98	64	83	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	99.80%	2	3	3	0.02%	8.17%	SRSESETSTMAAK	R	K	95.00%	3.8	0.296	0	1	0	0	2	1,464.60	143	155	TRUE	
SNU216LR_PC3_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	6	6	0.04%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	2.87	0.474	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216LR_PC3_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	6	6	0.04%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	3.93	0.395	0	0	1	1	2	3,383.68	36	63	TRUE	
SNU216LR_PC3_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	6	6	0.04%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	3	0.434	0	1	1	0	2	1,585.72	253	267	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	5.36%	KAEPSEVDMNSPK	K	S	95.00%	3.26	0.242	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	5.36%	KKAEPSEVDMNSPK	K	S	95.00%	2.95	0.227	0	0	1	0	2	1,639.74	60	73	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	5.36%	KKEEPSQNDISPK	K	T	95.00%	3.12	0.506	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC3_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	4	5	5	0.03%	5.36%	NEEPSEEEIDAPKPK	K	K	95.00%	4.41	0.337	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC3_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	4	4	0.02%	1.17%	MKTPVQYSQQQNSPQK	K	H	95.00%	3.25	0.315	0	1	0	0	2	1,971.90	345	360	TRUE	
SNU216LR_PC3_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	4	4	0.02%	1.17%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.45	0.486	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC3_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	4	4	0.02%	1.17%	TPVQYSQQQNSPQK	K	H	95.00%	3.28	0.276	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC3_03	Isoform 1 of Cisplatin resistance-associated overe	IPI00107745	51,467.10	100.00%	1	1	1	0.01%	5.56%	ESDTKNEVNGTSEDIKSEGDTQSN	K	-	95.00%	3.69	0.282	0	0	1	0	2	2,664.08	409	432	TRUE	
SNU216LR_PC3_03	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	3	4	0.02%	8.68%	APAPLGTVADSLRASDGQLQAK	K	A	95.00%	3.4	0.423	0	0	1	0	2	2,246.12	187	208	TRUE	
SNU216LR_PC3_03	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	3	4	0.02%	8.68%	KWSNSQPADLAHMGR	R	S	95.00%	3.73	0.415	0	0	1	0	2	1,777.78	143	157	TRUE	
SNU216LR_PC3_03	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	3	4	0.02%	8.68%	SFSEDTLMDGPAR	R	I	95.00%	2.49	0.327	0	2	0	0	2	1,505.60	123	135	TRUE	
SNU216LR_PC3_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	1	2	2	0.01%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	5.36	0.476	0	0	1	1	2	3,607.45	259	290	TRUE	
SNU216LR_PC3_03	Histone H1.5	IPI00217468	22,450.50	100.00%	2	4	4	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.57	0.484	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC3_03	Histone H1.5	IPI00217468	22,450.50	100.00%	2	4	4	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.64	0.604	0	1	1	0	2	2,190.07	1	21	TRUE	
SNU216LR_PC3_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	ARVDHGAEIITQSPGR	K	S	80.90%	3.14	0.13	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216LR_PC3_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.13	0.0741	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216LR_PC3_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	VDHGAEIITQSPGR	K	S	95.00%	3.64	0.44	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216LR_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	ASPSKPASAPASR	R	S	95.00%	2.95	0.465	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	DMESPTKLDVTLAK	K	D	95.00%	3.57	0.289	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	DMSPLSETEMALGK	K	D	95.00%	3.1	0.403	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	ETERASPIKMDLAPSK	K	D	95.00%	2.99	0.257	0	1	0	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	RASPSKPASAPASR	K	S	95.00%	2.08	0.302	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	5	0.03%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.55	0.508	0	2	2	0	2	2,051.83	68	85	TRUE	
SNU216LR_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	5	0.03%	5.07%	NEEDEGHSNSSPR	K	H	95.00%	3.3	0.417	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216LR_PC3_03	Isoform 1 of Protein C20orf112	IPI00289086,IPI00607558	43,078.10	99.80%	1	1	1	0.01%	3.90%	TTPESPPYSSGSYDSIK	K	T	95.00%	2.83	0.427	0	1	0	0	2	1,895.79	126	142	TRUE	
SNU216LR_PC3_03	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	5.96%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAK	R	K	95.00%	6.27	0.512	0	0	0	1	2	3,260.56	469	498	TRUE	
SNU216LR_PC3_03	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	5.96%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAKK	R	V	95.00%	6.79	0.576	0	0	0	1	2	3,388.65	469	499	TRUE	
SNU216LR_PC3_03	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.90%	2	3	3	0.02%	7.23%	KEPDDSRDEDEDEDESSEEDSEDEEPPPK	K	R	95.00%	1.9	0.348	0	0	1	0	2	3,618.19	426	454	TRUE	
SNU216LR_PC3_03	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.90%	2	3	3	0.02%	7.23%	QTPMASSPRPK	K	M	95.00%	2.94	0.401	0	1	1	0	2	1,279.59	150	160	TRUE	
SNU216LR_PC3_03	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	1	1	2	0.01%	4.12%	GGGGGQDNGLEGLGNDSR	R	D	95.00%	4.71	0.214	0	2	0	0	2	1,739.70	394	411	TRUE	
SNU216LR_PC3_03	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	100.00%	1	2	2	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	3.37	0.312	0	1	1	0	2	1,842.71	375	389	TRUE	
SNU216LR_PC3_03	Hypothetical protein LEO1	IPI00103090	75,405.30	98.80%	2	2	2	0.01%	4.50%	AQGSDEDKLQNSDDDEK	R	M	86.40%	1.76	0.261	0	1	0	0	2	2,053.73	168	184	TRUE	
SNU216LR_PC3_03	Hypothetical protein LEO1	IPI00103090	75,405.30	98.80%	2	2	2	0.01%	4.50%	KLTSDEEGEPSGK	K	R	91.50%	2.32	0.25	0	1	0	0	2	1,456.62	627	639	TRUE	
SNU216LR_PC3_03	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEK	R	K	95.00%	4.08	0.322	0	0	1	0	2	2,415.04	129	149	TRUE	
SNU216LR_PC3_03	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEKK	R	D	95.00%	6.01	0.517	0	0	1	1	2	2,543.14	129	150	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	99.80%	2	3	5	0.03%	8.76%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.4	0.433	0	0	1	3	0	2	2,586.99	308	328	TRUE	
SNU216LR_PC3_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	99.80%	2	3	5	0.03%	8.76%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	4.05	0.451	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216LR_PC3_03	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	100.00%	3	3	3	0.02%	6.69%	KSVAAEGALLPQTPPSPR	R	N	95.00%	3.34	0.155	0	0	1	0	2	1,898.97	279	296	TRUE	
SNU216LR_PC3_03	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	100.00%	3	3	3	0.02%	6.69%	SAASREDLVGPEVGASPQSGR	R	K	95.00%	2.94	0.241	0	0	1	0	2	2,149.99	258	278	TRUE	
SNU216LR_PC3_03	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	100.00%	3	3	3	0.02%	6.69%	SVAAEGALLPQTPPSPR	K	N	95.00%	3.1	0.317	0	1	0	0	2	1,770.88	280	296	TRUE	
SNU216LR_PC3_03	Glucocorticoid induced transcript 1	IPI00021595	58,023.50	99.80%	2	2	2	0.01%	5.30%	SASWGSADQLK	R	E	95.00%	2.12	0.306	0	1	0	0	2	1,229.52	221	231	TRUE	
SNU216LR_PC3_03	Glucocorticoid induced transcript 1	IPI00021595	58,023.50	99.80%	2	2	2	0.01%	5.30%	TSSLDTITGPYLTGQWPR	R	D	95.00%	3.77	0.42	0	1	0	0	2	2,072.97	170	187	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	DGLAPEKTSPDR	R	D	95.00%	2.51	0.3	0	0	1	0	2	1,365.60	9	20	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC3_03	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	DGLAPEKTSPDRDK	R	K	95.00%	2.56	0.279	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	KEQSEVSVSPR	K	A	95.00%	2.48	0.366	0	1	0	0	2	1,325.61	24	34	TRUE	
SNU216LR_PC3_03	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.02%	5.99%	KKEQSEVSVSPR	K	A	95.00%	2.27	0.336	0	1	0	0	2	1,453.70	23	34	TRUE	
SNU216LR_PC3_03	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	100.00%	2	2	2	0.01%	6.87%	NFTKPQDGDVIAPLITPQKK	R	E	95.00%	3.88	0.273	0	0	1	0	2	2,290.18	577	596	TRUE	
SNU216LR_PC3_03	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	100.00%	2	2	2	0.01%	6.87%	TPSNTPSAEADWSPGLELHPDYK	R	T	95.00%	4.51	0.28	0	0	1	0	2	2,592.13	21	43	TRUE	
SNU216LR_PC3_03	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	3	3	0.02%	6.69%	KPEDVLDDDDAGSAPLK	R	S	95.00%	2.76	0.302	0	1	1	0	2	1,864.82	234	250	TRUE	
SNU216LR_PC3_03	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	3	3	0.02%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	95.00%	3.31	0.365	0	1	0	0	2	2,020.92	233	250	TRUE	
SNU216LR_PC3_03	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	5	8	0.05%	7.42%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	3.39	0.446	0	1	3	0	2	1,957.90	293	311	TRUE	
SNU216LR_PC3_03	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	5	8	0.05%	7.42%	SPSPPDGSPAATPEIR	K	V	95.00%	2.64	0.446	0	2	0	0	2	1,658.74	296	311	TRUE	
SNU216LR_PC3_03	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	5	8	0.05%	7.42%	VNHEPEPAGGATPGATLPKSPSQLR	R	K	95.00%	5.33	0.517	0	0	1	1	2	2,591.26	312	336	TRUE	
SNU216LR_PC3_03	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	KRSVQEGENPDDGVR	R	G	95.00%	4.3	0.363	0	0	1	0	2	1,765.79	12	26	TRUE	
SNU216LR_PC3_03	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	SVQEGENPDDGVR	R	G	95.00%	2.34	0.421	0	1	0	0	2	1,481.59	14	26	TRUE	
SNU216LR_PC3_03	Nuclear receptor-binding protein	IPI00604756	59,844.60	100.00%	3	4	4	0.02%	8.41%	NGIYPLTAFGLPRPQQPQQEEVTSPVVPPS\	R	T	95.00%	4.66	0.393	0	0	1	0	2	3,553.81	399	430	TRUE	
SNU216LR_PC3_03	Nuclear receptor-binding protein	IPI00604756	59,844.60	100.00%	3	4	4	0.02%	8.41%	TPTPEPAEVETR	K	K	95.00%	2.62	0.451	0	1	0	0	2	1,406.62	431	442	TRUE	
SNU216LR_PC3_03	Nuclear receptor-binding protein	IPI00604756	59,844.60	100.00%	3	4	4	0.02%	8.41%	TPTPEPAEVETRK	K	V	95.00%	2.76	0.268	0	1	1	0	2	1,534.72	431	443	TRUE	
SNU216LR_PC3_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	4	4	0.02%	8.80%	HGHFGWPGWEMGPPGNWSPRPPR	K	A	95.00%	3.86	0.289	0	0	0	1	2	2,719.19	190	212	TRUE	
SNU216LR_PC3_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	4	4	0.02%	8.80%	LTPVSPESSSTEEK	R	S	95.00%	2.27	0.342	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216LR_PC3_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	4	4	0.02%	8.80%	SRLTPVSPESSSTEEK	R	S	95.00%	2.82	0.292	0	1	1	0	2	1,893.79	266	281	TRUE	
SNU216LR_PC3_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	5	5	0.03%	17.40%	DNSNSDSEGEDRRPAGPPR	R	E	81.30%	2.1	0.211	0	0	1	0	2	2,215.84	86	104	TRUE	
SNU216LR_PC3_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	5	5	0.03%	17.40%	GAADEVEVEPPEPPGPVASR	R	D	95.00%	3.46	0.429	0	1	0	0	2	2,082.94	66	85	TRUE	
SNU216LR_PC3_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	5	5	0.03%	17.40%	HQTLEVSLSRDSPLK	K	T	95.00%	3.57	0.46	0	1	1	0	2	1,789.88	358	372	TRUE	
SNU216LR_PC3_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	100.00%	4	5	5	0.03%	17.40%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	5.1	0.438	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216LR_PC3_03	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	1	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	7.29	0.702	0	0	1	0	2	4,199.41	119	153	TRUE	
SNU216LR_PC3_03	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.80%	2	2	2	0.01%	6.60%	EESLVEELSPASEK	R	K	95.00%	2.82	0.358	0	1	0	0	2	1,626.71	418	431	TRUE	
SNU216LR_PC3_03	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.80%	2	2	2	0.01%	6.60%	SRLSPAGEMKPMPLSEGK	K	S	95.00%	2.76	0.256	0	0	1	0	2	1,994.94	441	458	TRUE	
SNU216LR_PC3_03	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	14.90%	EETNGPSNQKPVKSPDNSIK	K	M	95.00%	3.52	0.318	0	0	1	0	2	2,249.04	444	463	TRUE	
SNU216LR_PC3_03	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	14.90%	EREESEDELEEANGNNPIDIEVDQNK	R	E	95.00%	4.66	0.433	0	0	2	0	2	3,095.30	253	278	TRUE	
SNU216LR_PC3_03	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	14.90%	EREESEDELEEANGNNPIDIEVDQNKESK	R	K	95.00%	6.4	0.446	0	0	1	0	2	3,439.47	253	281	TRUE	
SNU216LR_PC3_03	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	14.90%	RSQERDNLGMLVWSPNQNLSEAK	R	L	95.00%	3.65	0.315	0	0	1	0	2	2,752.29	123	145	TRUE	
SNU216LR_PC3_03	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	4	0.02%	4.19%	AGGPATPLSPTR	R	L	95.00%	2.52	0.404	0	2	0	0	2	1,204.57	29	40	TRUE	
SNU216LR_PC3_03	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	4	0.02%	4.19%	ATSSSSGSLSATGR	R	L	87.40%	2.3	0.17	0	2	0	0	2	1,348.57	417	430	TRUE	
SNU216LR_PC3_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	6	0.04%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	3.46	0.271	0	2	1	0	2	1,684.77	414	426	TRUE	
SNU216LR_PC3_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	6	0.04%	2.38%	RSQSIEQESQEK	R	Q	95.00%	3.28	0.162	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216LR_PC3_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	6	0.04%	2.38%	SQSIEQESQEK	R	Q	95.00%	2.41	0.413	0	2	0	0	2	1,452.53	416	426	TRUE	
SNU216LR_PC3_03	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	99.70%	1	1	1	0.01%	1.44%	ASLEDAPVDDLTR	R	K	94.60%	2.04	0.259	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216LR_PC3_03	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	99.90%	1	1	1	0.01%	1.90%	ALSASHTDLAH	R	-	93.10%	2.23	0.183	0	1	0	0	2	1,202.52	570	580	TRUE	
SNU216LR_PC3_03	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	2	2	0.01%	6.27%	SQGSGNEAEPLGK	K	G	95.00%	3.01	0.384	0	1	0	0	2	1,353.57	452	464	TRUE	
SNU216LR_PC3_03	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	2	2	0.01%	6.27%	TSPVKSNTPAAHLEIKPDELAK	K	K	95.00%	2.99	0.421	0	0	0	1	2	2,426.23	194	215	TRUE	
SNU216LR_PC3_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	99.90%	2	2	2	0.01%	2.15%	DRTPPLLYR	R	D	95.00%	2.32	0.36	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216LR_PC3_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	99.90%	2	2	2	0.01%	2.15%	SLSPGGAALGYR	R	D	95.00%	2.48	0.179	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216LR_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	6	6	0.04%	5.29%	DNSPPPAFKPEPPK	R	A	95.00%	2.18	0.316	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	6	6	0.04%	5.29%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.94	0.337	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	6	6	0.04%	5.29%	KVQVAALQASPPLDQDDR	R	A	95.00%	3.77	0.428	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	6	6	0.04%	5.29%	SRSWEDSPER	R	G	84.10%	2.14	0.198	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	6	6	0.04%	5.29%	SWEDSPER	R	G	95.00%	1.75	0.272	0	1	0	0	2	1,085.39	170	177	TRUE	
SNU216LR_PC3_03	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	NVSAGTQDVPSPPSDYVER	K	V	95.00%	3.02	0.208	0	1	0	0	2	2,097.91	246	264	TRUE	
SNU216LR_PC3_03	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.80%	2	2	2	0.01%	8.24%	STPVPEVVQELPLTSPVDDFRQPR	K	Y	95.00%	3.55	0.269	0	0	1	0	2	2,786.38	290	313	TRUE	
SNU216LR_PC3_03	Histone H1.4	IPI00217467	21,735.70	100.00%	3	3	4	0.02%	19.30%	KAPKSPAK	K	A	95.00%	2.09	0.326	0	2	0	0	2	906.481	182	189	TRUE	
SNU216LR_PC3_03	Histone H1.4	IPI00217467	21,735.70	100.00%	3	3	4	0.02%	19.30%	KASGPPVSELITK	R	A	95.00%	3.17	0.434	0	1	0	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216LR_PC3_03	Histone H1.4	IPI00217467	21,735.70	100.00%	3	3	4	0.02%	19.30%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.35	0.445	0	0	1	0	2	2,112.07	1	21	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	AEDGATPSPSNETPK	K	K	95.00%	2.92	0.401	0	4	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	AEDGATPSPSNETPKK	K	K	95.00%	2.92	0.365	0	3	1	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	AEDGATPSPSNETPKKK	K	K	95.00%	4.1	0.483	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	95.00%	6.07	0.555	0	1	3	0	2	2,995.27	105	136	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	5.19	0.367	0	0	1	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.48	0.405	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	5.22	0.511	0	0	1	1	2	2,899.33	11	39	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.47	0.494	0	1	1	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	15	22	0.13%	43.20%	VNGDASPAAAESGAKEELQANGSAPAADK	K	G	95.00%	3.6	0.241	0	0	0	1	2	4,387.98	40	86	TRUE	
SNU216LR_PC3_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	2	2	0.01%	4.00%	EEETSIDVAGKPNEVTK	K	A	95.00%	2.89	0.435	0	1	0	0	2	1,925.87	463	479	TRUE	
SNU216LR_PC3_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	2	2	0.01%	4.00%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	3.81	0.389	0	0	1	0	2	2,270.04	460	479	TRUE	
SNU216LR_PC3_03	Isoform Short of Adenomatous polyposis coli pro	IPI00215877	300,441.80	99.80%	2	2	2	0.01%	1.24%	GQMKPSIESYSEDDESK	R	F	95.00%	3.68	0.178	0	0	0	1	2	2,089.77	876	892	TRUE	
SNU216LR_PC3_03	Isoform Short of Adenomatous polyposis coli pro	IPI00215877	300,441.80	99.80%	2	2	2	0.01%	1.24%	IMDQVQQASASSSAPNK	K	N	95.00%	3.29	0.185	0	1	0	0	2	1,841.81	1645	1661	TRUE	
SNU216LR_PC3_03	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	1.69%	TDSSPNQAR	K	A	94.80%	2.01	0.233	0	1	0	0	2	1,055.42	138	146	TRUE	
SNU216LR_PC3_03	Metastasis-associated protein MTA2	IPI00171798	75,025.10	100.00%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	93.70%	3.22	0.144	0	0	0	1	2	2,252.05	424	443	TRUE	
SNU216LR_PC4_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	5	0.03%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.15	0.257	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216LR_PC4_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	5	0.03%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE\	K	G	95.00%	6.22	0.511	0	0	1	2	2	3,462.56	246	276	TRUE	
SNU216LR_PC4_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	5	0.03%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	3.27	0.446	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216LR_PC4_03	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	4	6	0.04%	5.47%	FTDKDQQPSGSEGEDDDAEAALK	K	K	95.00%	3.33	0.279	0	0	1	0	2	2,612.99	164	186	TRUE	
SNU216LR_PC4_03	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	4	6	0.04%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	3.96	0.538	0	1	3	1	2	2,741.09	164	187	TRUE	
SNU216LR_PC4_03	ELAV-like protein 1	IPI00301936	36,092.60	100.00%	1	1	1	0.01%	4.29%	NVALLSQLYHSPAR	K	R	95.00%	3.14	0.271	0	1	0	0	2	1,648.82	192	205	TRUE	
SNU216LR_PC4_03	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	KRSVQEGENPDDGVR	R	G	95.00%	5.03	0.432	0	0	1	0	2	1,765.79	12	26	TRUE	
SNU216LR_PC4_03	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	3.49%	SVQEGENPDDGVR	R	G	95.00%	2.43	0.48	0	1	0	0	2	1,481.59	14	26	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	4	4	4	0.02%	4.21%	EVYELLDSPGK	K	V	95.00%	2.1	0.313	0	1	0	0	2	1,329.60	46	56	TRUE	
SNU216LR_PC4_03	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	4	4	4	0.02%	4.21%	EVYELLDSPGKVLLQSK	K	D	95.00%	3.27	0.458	0	1	0	0	2	1,998.02	46	62	TRUE	
SNU216LR_PC4_03	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	4	4	4	0.02%	4.21%	TKEVYELLDSPGK	K	V	95.00%	3.25	0.453	0	1	0	0	2	1,558.74	44	56	TRUE	
SNU216LR_PC4_03	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	4	4	4	0.02%	4.21%	TKEVYELLDSPGKVLLQSK	K	D	95.00%	3.69	0.277	0	0	1	0	2	2,227.16	44	62	TRUE	
SNU216LR_PC4_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	1	1	1	0.01%	3.21%	DKSPVREPIDNLTPEER	K	D	95.00%	4.23	0.495	0	0	1	0	2	2,074.98	134	150	TRUE	
SNU216LR_PC4_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.94	0.363	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216LR_PC4_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.85	0.444	0	2	2	0	2	1,767.78	38	56	TRUE	
SNU216LR_PC4_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.09	0.495	0	1	1	0	2	2,132.89	38	58	TRUE	
SNU216LR_PC4_03	Rho-GTPase-activating protein 1	IPI00020567	50,437.90	99.80%	1	1	1	0.01%	2.51%	SSSPELVTHLK	K	W	95.00%	2.34	0.396	0	0	1	0	2	1,277.61	49	59	TRUE	
SNU216LR_PC4_03	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.82	0.475	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216LR_PC4_03	Ubiquitin-conjugating enzyme E2 J1	IPI00006937	35,199.70	99.80%	2	3	3	0.02%	8.81%	QISFKAEVNSSGK	R	T	95.00%	2.45	0.258	0	1	0	0	2	1,474.69	182	194	TRUE	
SNU216LR_PC4_03	Ubiquitin-conjugating enzyme E2 J1	IPI00006937	35,199.70	99.80%	2	3	3	0.02%	8.81%	RLSTSPDVIQGHQPR	R	D	95.00%	4.21	0.537	0	1	1	0	2	1,770.86	264	278	TRUE	
SNU216LR_PC4_03	Septin-2	IPI00014177	41,488.20	100.00%	3	6	9	0.05%	8.59%	ILDEIEEHNIKIYHLPDAESDEDEDFKEQTR	R	L	89.40%	4.29	0.0962	0	0	0	1	2	3,850.73	199	229	TRUE	
SNU216LR_PC4_03	Septin-2	IPI00014177	41,488.20	100.00%	3	6	9	0.05%	8.59%	IYHLPDAESDEDEDFK	K	E	95.00%	3.42	0.494	0	1	1	0	2	2,002.80	210	225	TRUE	
SNU216LR_PC4_03	Septin-2	IPI00014177	41,488.20	100.00%	3	6	9	0.05%	8.59%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.89	0.386	0	2	3	1	2	2,517.05	210	229	TRUE	
SNU216LR_PC4_03	MRG-binding protein	IPI00019451	22,416.80	99.80%	2	2	2	0.01%	7.84%	VLTANSNPSSPSAAK	K	R	95.00%	2.99	0.345	0	1	0	0	2	1,523.71	186	200	TRUE	
SNU216LR_PC4_03	MRG-binding protein	IPI00019451	22,416.80	99.80%	2	2	2	0.01%	7.84%	VLTANSNPSSPSAAKR	K	R	95.00%	2.5	0.356	0	1	0	0	2	1,679.81	186	201	TRUE	
SNU216LR_PC4_03	paternally expressed 10 isoform RF1	IPI00455806	36,966.10	99.80%	2	2	3	0.02%	4.31%	ASKSSPAGNSPAPL	K	-	95.00%	2.4	0.317	0	1	0	0	2	1,363.63	312	325	TRUE	
SNU216LR_PC4_03	paternally expressed 10 isoform RF1	IPI00455806	36,966.10	99.80%	2	2	3	0.02%	4.31%	SSPAGNSPAPL	K	-	95.00%	2.09	0.265	2	0	0	0	2	1,077.46	315	325	TRUE	
SNU216LR_PC4_03	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.50%	2	3	4	0.02%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	3.14	0.391	0	2	1	0	2	1,622.75	176	190	TRUE	
SNU216LR_PC4_03	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.50%	2	3	4	0.02%	7.25%	LEGNSPQGSNQGVK	K	I	89.50%	2.15	0.221	0	1	0	0	2	1,494.66	177	190	TRUE	
SNU216LR_PC4_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.70%	2	2	2	0.01%	3.61%	KDSNELSDSAGEEDSADLKR	K	A	93.40%	2.91	0.169	0	0	1	0	2	2,325.91	709	728	TRUE	
SNU216LR_PC4_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.70%	2	2	2	0.01%	3.61%	KTESPIKLSPATPSR	K	K	95.00%	2.96	0.25	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216LR_PC4_03	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.88	0.392	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC4_03	Septin-7	IPI00033025,IPI00552502	48,807.20	100.00%	1	1	1	0.01%	3.65%	GQLTKSPLAQMEEERR	K	E	95.00%	2.73	0.183	0	0	1	0	2	1,952.93	310	325	TRUE	
SNU216LR_PC4_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.04%	7.79%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.92	0.529	0	1	4	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC4_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.04%	7.79%	SHISDQSPLSSK	R	R	95.00%	2.13	0.334	0	1	0	0	2	1,365.60	344	355	TRUE	
SNU216LR_PC4_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.04%	7.79%	SSTPLPTISSSAENTR	R	Q	95.00%	2.96	0.226	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216LR_PC4_03	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	100.00%	2	2	2	0.01%	4.30%	SPSVPKSPTPK	K	S	95.00%	2.41	0.24	0	1	0	0	2	1,204.60	8	18	TRUE	
SNU216LR_PC4_03	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	100.00%	2	2	2	0.01%	4.30%	SPTPKSPPSR	K	K	95.00%	2.07	0.314	0	1	0	0	2	1,133.54	14	23	TRUE	
SNU216LR_PC4_03	Matrin-3	IPI00017297	94,626.70	99.90%	1	2	2	0.01%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.43	0.223	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216LR_PC4_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	2	4	4	0.02%	5.86%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	4.95	0.531	0	1	1	0	2	2,669.00	89	113	TRUE	
SNU216LR_PC4_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	2	4	4	0.02%	5.86%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	4.67	0.446	0	0	1	1	2	2,797.10	89	114	TRUE	
SNU216LR_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	5	6	0.04%	10.10%	RPHTPTPGIYMGR	K	P	95.00%	2.56	0.277	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	5	6	0.04%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.59	0.449	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	5	6	0.04%	10.10%	RSPSPYYSR	R	D	92.00%	2.06	0.192	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216LR_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	5	6	0.04%	10.10%	SPSPYYSR	R	D	95.00%	1.49	0.302	2	0	0	0	2	1,116.38	264	271	TRUE	IPI00013891
SNU216LR_PC4_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	DSENLASPSEYPENGER	R	F	95.00%	2.94	0.283	0	1	0	0	2	1,973.78	617	633	TRUE	
SNU216LR_PC4_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	YGLQDSDEEEEEHPSK	K	T	95.00%	2.99	0.251	0	1	0	0	2	1,971.75	883	898	TRUE	
SNU216LR_PC4_03	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	6	0.04%	10.80%	KYGGSVGSQPPPVAPEPGPVPSSPSQEPPTI	K	E	95.00%	6.75	0.525	0	0	1	3	2	3,291.61	178	209	TRUE	
SNU216LR_PC4_03	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	6	0.04%	10.80%	YGGSVGSQPPPVAPEPGPVPSSPSQEPPTKI	K	E	95.00%	6.38	0.479	0	0	2	0	2	3,163.51	179	209	TRUE	
SNU216LR_PC4_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.43	0.259	0	0	1	0	2	1,850.88	636	652	TRUE	
SNU216LR_PC4_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	3.88	0.275	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216LR_PC4_03	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	56,976.70	100.00%	1	1	1	0.01%	2.78%	ASVRGSSEEDEDAR	R	T	95.00%	2.29	0.216	0	1	0	0	2	1,667.59	133	146	TRUE	
SNU216LR_PC4_03	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	2	2	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE(	K	T	95.00%	5.36	0.0994	0	0	1	1	2	4,013.68	6	39	TRUE	
SNU216LR_PC4_03	Phosphoglycerate kinase 1	IPI00169383	44,484.10	100.00%	1	1	1	0.01%	4.09%	ALESPERPFLAILGGAK	K	V	95.00%	2.98	0.204	0	0	1	0	2	1,848.96	199	215	TRUE	
SNU216LR_PC4_03	Protein C9orf82	IPI00303812	38,368.80	99.80%	2	2	2	0.01%	10.20%	ILEGDNGMDSDMEEEADDGSK	K	M	95.00%	4.78	0.649	0	0	1	0	2	2,336.84	194	214	TRUE	
SNU216LR_PC4_03	Protein C9orf82	IPI00303812	38,368.80	99.80%	2	2	2	0.01%	10.20%	STDSSSVSGSLQQETK	R	Y	95.00%	2.94	0.272	0	1	0	0	2	1,720.73	89	104	TRUE	
SNU216LR_PC4_03	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	2	2	2	0.01%	3.77%	GKLEAIITPPPAK	K	K	95.00%	3.43	0.543	0	1	0	0	2	1,414.77	122	134	TRUE	
SNU216LR_PC4_03	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	2	2	2	0.01%	3.77%	GKLEAIITPPPAKK	K	A	95.00%	2.67	0.172	0	1	0	0	2	1,542.87	122	135	TRUE	
SNU216LR_PC4_03	Tumor-associated calcium signal transducer 2 pre	IPI00297910	35,709.80	100.00%	1	1	1	0.01%	3.41%	ELGELRKEPSL	K	-	95.00%	2.34	0.205	0	1	0	0	2	1,350.67	313	323	TRUE	
SNU216LR_PC4_03	Metastasis-associated protein MTA2	IPI00171798	75,025.10	99.70%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	94.80%	3.58	0.133	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216LR_PC4_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	4	5	0.03%	7.86%	IRDWHLKQSPASPER	K	D	95.00%	4.1	0.324	0	1	1	0	2	1,899.92	136	150	TRUE	
SNU216LR_PC4_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	4	5	0.03%	7.86%	MIGFPSSAGSVSPR	K	S	95.00%	3.01	0.441	0	2	0	0	2	1,488.66	416	429	TRUE	
SNU216LR_PC4_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	4	5	0.03%	7.86%	QSPASPERDYSPYYK	K	T	82.80%	2.21	0.177	0	1	0	0	2	1,867.79	143	157	TRUE	
SNU216LR_PC4_03	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.80%	2	2	2	0.01%	12.00%	GRESDEDTEDASETDLAK	R	H	95.00%	2.43	0.206	0	1	0	0	2	2,207.73	42	59	TRUE	
SNU216LR_PC4_03	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.80%	2	2	2	0.01%	12.00%	RPASPSSPEHLPATPAESPAQR	K	F	95.00%	3.76	0.22	0	0	1	0	2	2,363.11	235	256	TRUE	
SNU216LR_PC4_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	2	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.39	0.544	0	0	2	0	2	2,205.10	225	244	TRUE	
SNU216LR_PC4_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	98.80%	1	1	1	0.01%	2.70%	EVSDSEAGGGPQGER	R	K	95.00%	2.42	0.398	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216LR_PC4_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	7.44%	SLKESEALPEK	K	E	95.00%	2.07	0.294	0	1	0	0	2	1,310.62	171	181	TRUE	
SNU216LR_PC4_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	7.44%	VMIYQDEVKLPAKLSISK	K	S	95.00%	3.6	0.572	0	1	0	0	2	2,142.13	153	170	TRUE	
SNU216LR_PC4_03	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	1	1	2	0.01%	6.31%	VEAKEESEESDEDMGFGLFD	K	-	95.00%	2.99	0.271	0	2	0	0	2	2,342.89	298	317	TRUE	
SNU216LR_PC4_03	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	99.80%	1	1	1	0.01%	2.81%	TNTMNGSKSPVISRPK	R	S	95.00%	2.28	0.271	0	0	1	0	2	1,796.87	747	762	TRUE	
SNU216LR_PC4_03	Nucleoporin NUP53	IPI00329650	34,774.50	99.80%	2	3	3	0.02%	6.13%	SPLLAGGSPPQPVVPAHK	R	D	95.00%	3.46	0.39	0	1	1	0	2	1,831.95	66	83	TRUE	
SNU216LR_PC4_03	Nucleoporin NUP53	IPI00329650	34,774.50	99.80%	2	3	3	0.02%	6.13%	SPLLAGGSPPQPVVPAHKDK	R	S	95.00%	4.29	0.469	0	0	1	0	2	2,075.07	66	85	TRUE	
SNU216LR_PC4_03	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	2	2	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	3.77	0.308	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216LR_PC4_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.80%	1	2	2	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	95.00%	2.89	0.217	0	1	1	0	2	1,419.74	507	521	TRUE	
SNU216LR_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	11	17	0.10%	28.70%	AGDLLEDSPK	R	R	95.00%	2.22	0.189	1	2	0	0	2	1,124.49	158	167	TRUE	
SNU216LR_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	11	17	0.10%	28.70%	AGDLLEDSPKRPK	R	E	95.00%	3.02	0.234	0	1	2	0	2	1,505.74	158	170	TRUE	
SNU216LR_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	11	17	0.10%	28.70%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.27	0.535	0	2	2	0	2	2,204.90	127	146	TRUE	
SNU216LR_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	11	17	0.10%	28.70%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.93	0.481	0	1	3	0	2	2,462.04	127	148	TRUE	
SNU216LR_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	11	17	0.10%	28.70%	GPPQEEEEEEDEEEEATKEDAEAPGIRDHES	R	-	91.80%	2.82	0.205	0	0	1	0	2	3,703.49	209	240	TRUE	
SNU216LR_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	11	17	0.10%	28.70%	KGNAEGSSDEEGKLVIDEPAK	K	E	95.00%	2.63	0.275	0	0	1	0	2	2,332.99	126	146	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	11	17	0.10%	28.70%	RAGDLLEDSPK	R	R	95.00%	2.53	0.341	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216LR_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.49%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	4.09	0.305	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216LR_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.49%	DNSPPPAFKPEPPK	R	A	93.30%	2.34	0.211	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216LR_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.49%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.29	0.239	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.49%	GSYGSDAEEEEYRQQLSEHSKR	R	G	89.40%	3.57	0.154	0	0	0	1	2	2,665.12	1155	1176	TRUE	
SNU216LR_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.49%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.35	0.504	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.49%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	3.14	0.305	0	0	1	0	2	3,172.46	1048	1076	TRUE	
SNU216LR_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.49%	SRSWEDSPER	R	G	95.00%	2.42	0.203	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216LR_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	4	4	4	0.02%	2.76%	KLGAGEGGEASVSPEK	K	T	95.00%	2.71	0.268	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	4	4	4	0.02%	2.76%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.76	0.158	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216LR_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	4	4	4	0.02%	2.76%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.62	0.341	0	0	1	0	2	2,072.94	1290	1310	TRUE	
SNU216LR_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	4	4	4	0.02%	2.76%	TSQVGAASAPAKESPRK	K	G	95.00%	2.47	0.263	0	0	1	0	2	1,764.86	291	307	TRUE	
SNU216LR_PC4_03	Nuclear receptor-interacting protein 1	REVERSE_IPI00010196-R	126,944.60	99.80%	2	2	2	0.01%	2.42%	ATVQSVSEASSAERWIDK	K	D	95.00%	3.59	0.194	0	0	1	0	2	2,123.90	55	72	TRUE	
SNU216LR_PC4_03	Nuclear receptor-interacting protein 1	REVERSE_IPI00010196-R	126,944.60	99.80%	2	2	2	0.01%	2.42%	ELSNKYGANK	R	P	95.00%	2.22	0.258	0	1	0	0	2	1,283.51	792	801	TRUE	
SNU216LR_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	100.00%	1	1	1	0.01%	5.82%	SSGSPYGGGYGSGGGGSGGYGSR	R	R	95.00%	4.48	0.0147	0	1	0	0	2	1,990.76	355	376	TRUE	
SNU216LR_PC4_03	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	98.90%	1	1	1	0.01%	6.32%	KPEDVLDDDDAGSAPLK	R	S	95.00%	3.19	0.207	0	1	0	0	2	1,864.82	234	250	TRUE	
SNU216LR_PC4_03	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	99.80%	2	2	2	0.01%	5.26%	NMAPSQQSPVR	R	T	95.00%	2.18	0.257	0	1	0	0	2	1,294.56	220	230	TRUE	
SNU216LR_PC4_03	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	99.80%	2	2	2	0.01%	5.26%	TTPPTQKPPSPPMSGK	R	G	95.00%	2.15	0.329	0	1	0	0	2	1,730.82	174	189	TRUE	
SNU216LR_PC4_03	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	95.00%	1.65	0.337	0	1	0	0	2	1,044.38	133	139	TRUE	
SNU216LR_PC4_03	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	2	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.04	0.339	0	0	2	0	2	2,581.01	131	153	TRUE	
SNU216LR_PC4_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	3	0.02%	3.09%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.68	0.543	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216LR_PC4_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	3	0.02%	3.09%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.06	0.36	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216LR_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	SPVSTRPLPSASQK	R	A	91.50%	2.33	0.192	0	0	1	0	2	1,534.76	216	229	TRUE	
SNU216LR_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	SSPQLDPLR	R	K	95.00%	1.71	0.327	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	SSPQLDPLRK	R	S	95.00%	2.06	0.283	0	0	1	0	2	1,220.60	182	191	TRUE	
SNU216LR_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	10.20%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	4.04	0.162	0	0	0	1	2	3,491.75	182	214	TRUE	
SNU216LR_PC4_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	5	6	0.04%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	3.46	0.326	0	1	0	0	2	2,319.81	56	73	TRUE	
SNU216LR_PC4_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	5	6	0.04%	10.50%	KSLDSDESEDEEDDYQQKR	K	K	95.00%	3.57	0.236	0	1	1	0	2	2,475.91	56	74	TRUE	
SNU216LR_PC4_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	5	6	0.04%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.68	0.625	0	2	0	0	2	2,111.75	57	73	TRUE	
SNU216LR_PC4_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	4	5	6	0.04%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	3.34	0.269	0	0	1	0	2	2,347.81	57	74	TRUE	
SNU216LR_PC4_03	Isoform 1 of Protein C6orf106	IPI00013269,IPI00332642,IP	24,617.50	99.20%	2	2	2	0.01%	12.80%	KVEGNFNPFASPQK	R	N	95.00%	3.12	0.301	0	1	0	0	2	1,642.76	131	144	TRUE	
SNU216LR_PC4_03	Isoform 1 of Protein C6orf106	IPI00013269,IPI00332642,IP	24,617.50	99.20%	2	2	2	0.01%	12.80%	LSQNSVNLSPSSHANNLSVVTYSK	R	G	83.10%	2.95	0.176	0	0	1	0	2	2,626.25	190	213	TRUE	
SNU216LR_PC4_03	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	9.23%	LPATAAEPEAAVISNGEH	R	-	95.00%	3	0.289	0	1	0	0	2	1,856.84	503	520	TRUE	
SNU216LR_PC4_03	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	9.23%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAK	R	K	95.00%	4.49	0.319	0	0	0	1	2	3,260.56	469	498	TRUE	
SNU216LR_PC4_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	3.19	0.51	0	2	0	0	2	1,617.62	79	92	TRUE	
SNU216LR_PC4_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.73	0.4	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216LR_PC4_03	Isoform 1 of Acyl-coenzyme A oxidase 1, peroxisc	IPI00296907,IPI00477729	74,687.50	99.80%	1	1	1	0.01%	3.33%	ERDSASFNPELLTHILDGSPEK	R	T	95.00%	4.45	0.378	0	0	1	0	2	2,535.18	8	29	TRUE	
SNU216LR_PC4_03	Melanoma-associated antigen G1	IPI00217104	34,309.10	99.80%	1	1	1	0.01%	5.59%	GPGGSQGSQGPSPQGAR	R	R	95.00%	3.32	0.539	0	1	0	0	2	1,604.68	53	69	TRUE	
SNU216LR_PC4_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	3.07	0.269	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC4_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	6.25	0.523	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC4_03	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	1	1	1	0.01%	2.49%	SLDMDSIIAEVK	R	A	95.00%	2.72	0.189	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	5.05	0.461	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI	K	H	95.00%	4.89	0.212	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.29	0.258	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216LR_PC4_03	GCN1-like protein 1	IPI00001159	292,936.60	99.60%	2	2	2	0.01%	1.35%	EDAGGMIQRLMQQLLESDK	K	Y	91.30%	2.41	0.178	0	1	0	0	2	2,258.02	1374	1392	TRUE	
SNU216LR_PC4_03	GCN1-like protein 1	IPI00001159	292,936.60	99.60%	2	2	2	0.01%	1.35%	LKALGTLVSHVTLRLLK	R	P	95.00%	3.1	0.236	0	0	1	0	2	1,942.16	915	931	TRUE	
SNU216LR_PC4_03	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	DSLSPVLHPSDLILTR	K	G	95.00%	3.12	0.338	0	1	1	0	2	1,842.94	311	326	TRUE	
SNU216LR_PC4_03	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	GTLDEEDEEADSDTDDIDHR	R	V	95.00%	4.37	0.496	0	1	1	0	2	2,356.86	327	346	TRUE	
SNU216LR_PC4_03	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	100.00%	2	3	3	0.02%	22.40%	APPGAPGPGPGSGAPGSQEEEEEPGLVEGD	R	A	95.00%	4.87	0.414	0	0	1	1	2	4,385.95	79	123	TRUE	
SNU216LR_PC4_03	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	100.00%	2	3	3	0.02%	22.40%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	3.87	0.443	0	0	1	0	2	2,307.02	146	166	TRUE	
SNU216LR_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	EKEISDDEAEEEK	K	G	95.00%	2.6	0.292	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	IEDVGSDEEDDSGK	K	D	95.00%	2.28	0.292	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.53	0.36	0	1	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.91	0.387	0	1	0	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC4_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	5	0.03%	9.98%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.9	0.431	0	1	2	0	2	2,586.99	308	328	TRUE	
SNU216LR_PC4_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	5	0.03%	9.98%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	6.68	0.487	0	0	0	1	2	3,394.35	302	328	TRUE	
SNU216LR_PC4_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	5	0.03%	9.98%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.21	0.333	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216LR_PC4_03	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	KLVEGEEGRMDSPSATVVSAVQSR	R	C	93.10%	4.48	0.0921	0	0	1	0	2	2,612.24	385	408	TRUE	
SNU216LR_PC4_03	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	MDSPSATVVSAVQSR	R	C	95.00%	2.93	0.533	0	1	0	0	2	1,614.72	394	408	TRUE	
SNU216LR_PC4_03	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	3	3	3	0.02%	7.52%	YFSQESEVSE	K	-	95.00%	1.96	0.178	1	0	0	0	2	1,284.47	443	452	TRUE	
SNU216LR_PC4_03	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	2	2	2	0.01%	7.50%	AALEDTLAETEAR	K	F	95.00%	2.13	0.39	0	1	0	0	2	1,469.65	318	330	TRUE	
SNU216LR_PC4_03	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	2	2	2	0.01%	7.50%	SLLEGQEDHYNNLSASK	R	V	85.40%	2.54	0.211	0	1	0	0	2	1,984.86	382	398	TRUE	
SNU216LR_PC4_03	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	99.80%	2	2	3	0.02%	10.10%	ARSNENLDKIDMSLDDIIK	K	L	95.00%	5.02	0.34	0	0	1	0	2	2,270.07	21	39	TRUE	
SNU216LR_PC4_03	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	99.80%	2	2	3	0.02%	10.10%	LVGATATSSPPPK	R	A	95.00%	2.8	0.464	0	2	0	0	2	1,305.65	8	20	TRUE	
SNU216LR_PC4_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	3	3	0.02%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	3.73	0.37	0	1	1	0	2	1,761.88	280	296	TRUE	
SNU216LR_PC4_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	3	3	0.02%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	3.56	0.31	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC4_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	4	4	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	9.32	0.224	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC4_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	4	4	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	3.64	0.394	0	1	1	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.05%	19.30%	KAPKSPAK	K	A	95.00%	2.2	0.36	0	3	0	0	2	906.481	182	189	TRUE	
SNU216LR_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.05%	19.30%	KASGPPVSELITK	R	A	95.00%	3.03	0.419	0	1	1	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216LR_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.05%	19.30%	SETAPAAPAAPAPAEKTPVK	-	K	95.00%	4.09	0.525	0	1	0	0	2	1,983.98	1	20	TRUE	
SNU216LR_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.05%	19.30%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.47	0.551	0	1	1	1	2	2,112.07	1	21	TRUE	
SNU216LR_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	3.08%	EIQNGNLHESDSESVPR	K	D	95.00%	3.32	0.393	0	2	0	0	2	1,990.85	66	82	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	3.08%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.41	0.324	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216LR_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	3.08%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.52	0.48	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216LR_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	3.08%	QPTPPSEAAASK	K	K	95.00%	2.42	0.461	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216LR_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	5	5	6	0.04%	3.08%	VEPVPVTKQPTPPSEAAASK	K	K	95.00%	2.93	0.383	0	0	1	0	2	2,113.06	143	162	TRUE	
SNU216LR_PC4_03	Histone H1.5	IPI00217468	22,450.50	100.00%	2	5	9	0.05%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.72	0.502	0	3	1	0	2	2,061.97	1	20	TRUE	
SNU216LR_PC4_03	Histone H1.5	IPI00217468	22,450.50	100.00%	2	5	9	0.05%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.8	0.573	0	2	2	1	2	2,190.07	1	21	TRUE	
SNU216LR_PC4_03	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	EPAITSQNSPEAR	K	E	95.00%	2.35	0.272	0	1	0	0	2	1,479.65	92	104	TRUE	
SNU216LR_PC4_03	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	KEPAITSQNSPEAR	K	E	95.00%	3.07	0.173	0	1	0	0	2	1,607.74	91	104	TRUE	
SNU216LR_PC4_03	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	KKEPAITSQNSPEAR	K	E	95.00%	3.57	0.364	0	1	1	0	2	1,735.84	90	104	TRUE	
SNU216LR_PC4_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	3	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.53	0.268	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216LR_PC4_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	3	3	0.02%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	3.39	0.274	0	0	1	1	2	2,907.33	232	258	TRUE	
SNU216LR_PC4_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	4	4	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	3.42	0.455	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216LR_PC4_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	4	4	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.85	0.512	0	1	1	0	2	1,894.88	104	120	TRUE	
SNU216LR_PC4_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	DYDEEEQGYDSEKEK	R	K	95.00%	2.7	0.209	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216LR_PC4_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	SKTPPKSYSTAR	R	R	95.00%	2.56	0.347	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216LR_PC4_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	3	3	0.02%	7.53%	SESPKEPEQLR	K	K	95.00%	2.47	0.314	0	0	1	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC4_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	3	3	0.02%	7.53%	SESPKEPEQLRK	K	L	95.00%	3.42	0.467	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216LR_PC4_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	3	3	0.02%	7.53%	SSGPYGGGGQYFAKPR	R	N	95.00%	4.52	0.408	0	0	1	0	2	1,708.75	337	352	TRUE	
SNU216LR_PC4_03	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	2	2	0.01%	8.98%	DLGSTEDGDGTDDFLTDKEDEK	K	A	95.00%	5.26	0.548	0	1	0	0	2	2,481.97	180	201	TRUE	
SNU216LR_PC4_03	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	2	2	0.01%	8.98%	KDLGSTEDGDGTDDFLTDKEDEK	R	A	95.00%	6.67	0.49	0	0	1	0	2	2,610.06	179	201	TRUE	
SNU216LR_PC4_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.23%	MKTPVQYSQQQNSPQK	K	H	95.00%	2.67	0.345	0	1	0	0	2	1,971.90	345	360	TRUE	
SNU216LR_PC4_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.23%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.19	0.424	0	1	1	0	2	2,287.98	296	317	TRUE	
SNU216LR_PC4_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.23%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	4.59	0.419	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216LR_PC4_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	5	5	0.03%	1.23%	TPVQYSQQQNSPQK	K	H	95.00%	3.43	0.422	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216LR_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	6	6	0.04%	4.35%	ETQSPEQVKSEK	K	L	95.00%	3.22	0.439	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	6	6	0.04%	4.35%	KAEGEPQEESPLK	K	S	95.00%	3.39	0.336	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	6	6	0.04%	4.35%	KAEGEPQEESPLKSK	K	S	95.00%	4.95	0.48	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	6	6	0.04%	4.35%	LKDLFDYSPPLHK	K	N	82.30%	2.44	0.131	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216LR_PC4_03	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	1	1	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	95.00%	3.47	0.294	0	0	1	0	2	2,531.23	30	50	TRUE	
SNU216LR_PC4_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	3.35%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	89.20%	6.69	0.0064	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216LR_PC4_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	3.35%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	85.60%	6.29	0.0105	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216LR_PC4_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	3.35%	RSSLLSLMTGKK	R	D	95.00%	2.84	0.293	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216LR_PC4_03	Cdc42 effector protein 3	IPI00294391	27,679.20	99.80%	2	3	3	0.02%	17.70%	ANSTSDSVFTETPSPVLK	R	N	95.00%	4.48	0.443	0	0	1	0	2	1,959.89	87	104	TRUE	
SNU216LR_PC4_03	Cdc42 effector protein 3	IPI00294391	27,679.20	99.80%	2	3	3	0.02%	17.70%	NAISLPTIGGSQALMLPLLSPVTFNSK	K	Q	95.00%	4.61	0.585	0	1	1	0	2	2,849.49	105	131	TRUE	
SNU216LR_PC4_03	Mitogen-activated protein kinase 1	IPI00003479	41,260.70	100.00%	1	1	2	0.01%	5.29%	VADPDHDHTGFLTEYVATR	R	W	95.00%	4.64	0.589	0	0	2	0	2	2,223.97	172	190	TRUE	
SNU216LR_PC4_03	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	1	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.71	0.523	0	1	0	0	2	2,323.85	116	134	TRUE	
SNU216LR_PC4_03	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	99.60%	1	1	1	0.01%	3.62%	STSYGYSR	R	S	80.20%	1.65	0.294	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216LR_PC4_03	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	99.80%	1	1	1	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	2.88	0.168	0	0	1	0	2	1,842.71	375	389	TRUE	
SNU216LR_PC4_03	Isoform 3 of Quaking protein	IPI00736672,IPI00759828	36,926.80	100.00%	1	1	1	0.01%	4.20%	DANIKSPTAQAAPR	R	I	95.00%	2.3	0.331	0	0	1	0	2	1,519.73	206	219	TRUE	
SNU216LR_PC4_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	3	3	0.02%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	5.11	0.5	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216LR_PC4_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	3	3	0.02%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.93	0.485	0	0	1	1	2	2,595.29	178	201	TRUE	
SNU216LR_PC4_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	AEEDEILNRSPR	K	N	95.00%	2.02	0.266	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216LR_PC4_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.58	0.286	0	0	1	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC4_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	120,631.70	99.80%	2	3	3	0.02%	4.53%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.25	0.0871	0	1	1	0	2	2,083.95	372	391	TRUE	
SNU216LR_PC4_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	120,631.70	99.80%	2	3	3	0.02%	4.53%	VKPPPSPTTEGPSLQPDLAPEEAAGTQRPK	K	N	95.00%	3.64	0.234	0	0	0	1	2	3,175.57	1004	1033	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	5	5	0.03%	1.71%	RVSLEPHQGPGTPESK	R	K	95.00%	2.71	0.239	0	0	1	0	2	1,798.85	1989	2004	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	5	5	0.03%	1.71%	TQPDGTSVPGEPASPISQR	R	L	95.00%	3.98	0.46	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	5	5	0.03%	1.71%	VSLEPHQGPGTPESK	R	K	95.00%	3	0.335	0	1	1	0	2	1,642.75	1990	2004	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	5	5	0.03%	1.71%	VSLEPHQGPGTPESKK	R	A	95.00%	2.72	0.184	0	0	1	0	2	1,770.84	1990	2005	TRUE	
SNU216LR_PC4_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.90%	2	3	4	0.02%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	3.98	0.43	0	2	0	0	2	1,857.81	312	327	TRUE	
SNU216LR_PC4_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.90%	2	3	4	0.02%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.02	0.456	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216LR_PC4_03	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.80%	2	2	2	0.01%	5.26%	ASSASVPAVGASAEGTRR	R	D	95.00%	2.03	0.269	0	0	1	0	2	1,753.82	167	184	TRUE	
SNU216LR_PC4_03	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.80%	2	2	2	0.01%	5.26%	LGSYSGPTSVSR	R	Q	95.00%	2.2	0.256	0	1	0	0	2	1,290.57	187	198	TRUE	
SNU216LR_PC4_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	IGEGTYGVVYK	K	G	95.00%	1.92	0.358	0	2	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216LR_PC4_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.48	0.309	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216LR_PC4_03	Transcription elongation factor A protein-like 3	IPI00478127	22,502.00	99.80%	2	2	2	0.01%	20.00%	GTDDSPKDSQEDLQER	R	H	95.00%	2.94	0.468	0	1	0	0	2	1,899.76	117	132	TRUE	
SNU216LR_PC4_03	Transcription elongation factor A protein-like 3	IPI00478127	22,502.00	99.80%	2	2	2	0.01%	20.00%	REDEGEPGDEGQLEDEGSQEKQGR	K	S	95.00%	4.16	0.312	0	0	1	0	2	2,754.11	48	71	TRUE	
SNU216LR_PC4_03	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	99.80%	2	2	2	0.01%	2.56%	KPSPEPEGEVGPPK	R	I	95.00%	3.21	0.405	0	1	0	0	2	1,527.71	342	355	TRUE	
SNU216LR_PC4_03	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	99.80%	2	2	2	0.01%	2.56%	RKPSPEPEGEVGPPK	K	I	95.00%	3.57	0.431	0	1	0	0	2	1,683.81	341	355	TRUE	
SNU216LR_PC4_03	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.80%	2	3	4	0.02%	6.46%	GTGQSDDSDIWDDTALIK	R	A	95.00%	3.01	0.442	0	1	0	0	2	2,096.81	24	41	TRUE	
SNU216LR_PC4_03	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.80%	2	3	4	0.02%	6.46%	RGTGQSDDSDIWDDTALIK	R	A	95.00%	3.63	0.445	0	2	1	0	2	2,172.95	23	41	TRUE	
SNU216LR_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	7	8	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.54	0.548	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216LR_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	7	8	0.05%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.98	0.268	0	0	2	1	2	3,647.49	108	138	TRUE	
SNU216LR_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	7	8	0.05%	13.00%	LDNVPHTPSSYIETLPK	R	A	95.00%	3.86	0.21	0	1	0	0	2	1,990.95	45	61	TRUE	
SNU216LR_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	7	8	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.22	0.483	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216LR_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	7	8	0.05%	13.00%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.63	0.442	0	0	0	1	2	3,787.60	107	138	TRUE	
SNU216LR_PC4_03	Glutamate-rich WD repeat-containing protein 1	IPI00027831	49,418.40	99.70%	1	2	4	0.02%	6.73%	MHNLHGTKPPPSEGSDEEEEEEDEEDEEER	R	K	95.00%	5.11	0.675	0	0	2	2	2	3,669.34	108	137	TRUE	
SNU216LR_PC4_03	Gastric-associated differentially-expressed protein	IPI00386208	14,866.80	100.00%	1	1	1	0.01%	11.00%	AAAYNIVPSSTGAAK	R	A	95.00%	2.56	0.21	0	1	0	0	2	1,500.71	26	40	TRUE	
SNU216LR_PC4_03	Fibrillarin	IPI00025039	33,784.10	100.00%	1	2	2	0.01%	4.36%	RVSISEGDDKIEYR	K	A	95.00%	3.51	0.355	0	1	1	0	2	1,746.81	122	135	TRUE	
SNU216LR_PC4_03	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPR	K	R	95.00%	2.4	0.295	0	1	0	0	2	1,823.79	175	190	TRUE	
SNU216LR_PC4_03	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPRR	K	K	95.00%	2.73	0.232	0	0	1	0	2	1,979.89	175	191	TRUE	
SNU216LR_PC4_03	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	EVQAEQPSSSSPR	R	R	95.00%	3.17	0.469	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216LR_PC4_03	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.90%	2	2	2	0.01%	7.82%	AQVLATIHGHAGAFPAAGDAGEGAPGGGS	R	V	95.00%	6.35	0.533	0	0	1	0	2	3,093.42	283	315	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.90%	2	2	2	0.01%	7.82%	RAQVLATIHGHAGAFPAAGDAGEGAPGGC	R	V	95.00%	5.44	0.481	0	0	0	1	2	3,249.52	282	315	TRUE	
SNU216LR_PC4_03	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	7.27%	SKSPPKSPEEEGAVSS	R	-	90.80%	2.38	0.181	0	1	0	0	2	1,775.71	205	220	TRUE	
SNU216LR_PC4_03	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	7.27%	SPEEEGAVSS	K	-	95.00%	1.7	0.444	1	0	0	0	2	1,071.39	211	220	TRUE	
SNU216LR_PC4_03	Coatomer subunit epsilon	IPI00465132	34,351.70	100.00%	1	1	1	0.01%	3.26%	RDSIVAELDR	R	E	95.00%	2.91	0.267	0	1	0	0	2	1,253.59	96	105	TRUE	
SNU216LR_PC4_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	5	0.03%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.27	0.514	0	1	0	0	2	2,671.09	14	37	TRUE	
SNU216LR_PC4_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	5	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.47	0.622	0	2	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC4_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	5	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	5.71	0.545	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC4_03	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	100.00%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPR	R	R	95.00%	3	0.342	0	1	0	0	2	1,578.68	551	565	TRUE	
SNU216LR_PC4_03	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	100.00%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPRR	R	T	95.00%	3.4	0.382	0	1	0	0	2	1,734.78	551	566	TRUE	
SNU216LR_PC4_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	2	3	3	0.02%	6.47%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.39	0.59	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216LR_PC4_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	2	3	3	0.02%	6.47%	GPALTPIRDEEWGGHSPRSPR	R	G	95.00%	2.95	0.352	0	0	1	0	2	2,475.10	430	450	TRUE	
SNU216LR_PC4_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	6	0.04%	23.60%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.75	0.485	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC4_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	6	0.04%	23.60%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	81.20%	6.34	0.0015	0	0	1	0	2	3,553.49	264	296	TRUE	
SNU216LR_PC4_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	6	0.04%	23.60%	QSSPSGSEQLVR	R	R	95.00%	2.55	0.401	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC4_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	6	0.04%	23.60%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	93.00%	7.27	0.0007	0	0	1	0	2	3,066.27	16	41	TRUE	
SNU216LR_PC4_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	6	0.04%	23.60%	STGSPTQETQAPFIAK	K	R	95.00%	2.94	0.405	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216LR_PC4_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	5	7	7	0.04%	9.76%	SAMPFTASPASSTTAR	R	V	88.70%	3.07	0.0867	0	1	0	0	2	1,678.71	122	137	TRUE	
SNU216LR_PC4_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	5	7	7	0.04%	9.76%	SEHKVWSPLVTEEGK	R	R	92.90%	2.64	0.173	0	0	1	0	2	1,805.85	83	97	TRUE	
SNU216LR_PC4_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	5	7	7	0.04%	9.76%	SEHKVWSPLVTEEGKR	R	H	95.00%	2.84	0.324	0	1	1	0	2	1,961.95	83	98	TRUE	
SNU216LR_PC4_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	5	7	7	0.04%	9.76%	VWSPLVTEEGK	K	R	95.00%	2.49	0.271	0	1	0	0	2	1,324.62	87	97	TRUE	
SNU216LR_PC4_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	5	7	7	0.04%	9.76%	VWSPLVTEEGKR	K	H	95.00%	3.22	0.284	0	1	1	0	2	1,480.72	87	98	TRUE	
SNU216LR_PC4_03	Hsp90 co-chaperone Cdc37	IPI00013122	44,468.20	100.00%	1	1	1	0.01%	2.38%	TGDEKDVSV	K	-	95.00%	1.74	0.383	1	0	0	0	2	1,029.41	370	378	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nuclear distribution protein nudE hc	IPI00014893	37,721.50	99.80%	2	2	2	0.01%	7.76%	GLDDSTGGTPLTPAAR	R	I	95.00%	2.68	0.35	0	1	0	0	2	1,608.73	235	250	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nuclear distribution protein nudE hc	IPI00014893	37,721.50	99.80%	2	2	2	0.01%	7.76%	NLVYDQSPNR	R	T	89.90%	1.9	0.24	0	1	0	0	2	1,285.56	276	285	TRUE	
SNU216LR_PC4_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	8.19%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.03	0.361	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216LR_PC4_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	8.19%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.22	0.199	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216LR_PC4_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	8.19%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	3.86	0.41	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216LR_PC4_03	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	2	2	2	0.01%	10.00%	ATQVGEKTPKDESANQEEPEAR	K	V	95.00%	4.85	0.415	0	0	1	0	2	2,494.11	276	297	TRUE	
SNU216LR_PC4_03	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	2	2	2	0.01%	10.00%	KVSKQEEASGGPTAPK	R	A	95.00%	3.06	0.397	0	1	0	0	2	1,693.82	236	251	TRUE	
SNU216LR_PC4_03	Isoform 1 of Protein NDRG3	IPI00005605	41,408.90	100.00%	1	1	2	0.01%	4.53%	THSTSSSLGSGESPFSR	R	S	95.00%	3.2	0.445	0	2	0	0	2	1,803.75	329	345	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	3	3	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.55	0.394	0	1	1	0	2	2,544.30	33	57	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	3	3	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPKEVINGNI	K	T	95.00%	4.42	0.477	0	0	0	1	2	3,411.78	33	65	TRUE	
SNU216LR_PC4_03	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	2	2	4	0.02%	9.67%	ELTDEEAER	K	L	95.00%	2.23	0.321	0	1	0	0	2	1,171.45	106	114	TRUE	
SNU216LR_PC4_03	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	2	2	4	0.02%	9.67%	NGSLDSPGKQDTEEDEEEDEKDK	K	G	95.00%	5.38	0.478	0	0	3	0	2	2,674.05	134	156	TRUE	
SNU216LR_PC4_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.40%	2	3	4	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	88.50%	2.79	0.219	0	0	1	0	2	2,926.25	191	216	TRUE	
SNU216LR_PC4_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.40%	2	3	4	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.6	0.349	0	0	2	1	2	3,082.36	191	217	TRUE	
SNU216LR_PC4_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	3	3	0.02%	13.00%	HGESAWNLENR	R	F	94.10%	1.85	0.262	0	1	0	0	2	1,392.57	10	20	TRUE	
SNU216LR_PC4_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	3	3	0.02%	13.00%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	4.8	0.361	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216LR_PC4_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	3	3	0.02%	13.00%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	2.9	0.205	0	0	1	0	2	2,497.08	117	137	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	ATVTPSPVK	K	G	95.00%	2.36	0.28	0	1	0	0	2	979.4861	176	184	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	3.89	0.457	0	0	2	2	2	2,421.94	71	90	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	EEDEEPESPPEK	K	K	94.90%	2.64	0.146	0	1	0	0	2	1,494.55	207	218	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	EEDEEPESPPEKK	K	T	95.00%	3.18	0.341	0	2	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	EKTPSPKEEDEEPESPPEK	K	K	95.00%	4.17	0.371	0	0	2	0	2	2,261.97	200	218	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	EMLMEDVGSEEEQEEEDEAPFQEK	R	D	95.00%	4.79	0.483	0	1	1	0	2	2,937.12	105	128	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	4.64	0.633	0	1	4	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	LKATVTPSPVK	K	G	95.00%	2.37	0.412	1	2	0	0	2	1,220.67	174	184	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	LKATVTPSPVKGK	R	G	95.00%	3.38	0.423	0	2	1	0	2	1,405.78	174	186	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	NSQEDSEDSEDKDVK	K	T	95.00%	3.32	0.416	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	5.96	0.449	0	2	1	0	2	2,076.82	50	67	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	TPSPKEEDEEPESPPEK	K	K	95.00%	2.86	0.254	0	1	1	0	2	2,004.83	202	218	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.74	0.401	0	1	2	0	2	2,132.93	202	219	TRUE	
SNU216LR_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	23	37	0.22%	47.30%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.48	0.498	0	3	1	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	11	20	0.12%	10.00%	FASDDEHDEHDENGATGPVK	K	R	95.00%	3.78	0.511	0	2	2	0	2	2,249.86	364	383	TRUE	
SNU216LR_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	11	20	0.12%	10.00%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.92	0.488	0	2	2	2	2	2,405.96	364	384	TRUE	
SNU216LR_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	11	20	0.12%	10.00%	SPSKPLPEVTDEYKNDVK	R	N	95.00%	3.64	0.329	0	0	1	0	2	2,126.01	92	109	TRUE	
SNU216LR_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	11	20	0.12%	10.00%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	4	0.522	0	1	2	0	2	2,479.00	362	383	TRUE	
SNU216LR_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	11	20	0.12%	10.00%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	3.94	0.435	0	1	2	3	2	2,635.11	362	384	TRUE	
SNU216LR_PC4_03	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.82	0.251	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216LR_PC4_03	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	3	4	0.02%	8.68%	LSLEGDHSTPPSAYGSVK	K	A	95.00%	3.23	0.257	0	1	2	0	2	1,924.87	29	46	TRUE	
SNU216LR_PC4_03	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	3	4	0.02%	8.68%	SYSPYDMLESIRK	K	E	95.00%	2.34	0.305	0	1	0	0	2	1,668.73	252	264	TRUE	
SNU216LR_PC4_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	3	5	5	0.03%	9.73%	KKSPNELVDDLFK	R	G	95.00%	4.36	0.454	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC4_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	3	5	5	0.03%	9.73%	LGSTAPQVLSTSSPAQQAENEAK	K	A	95.00%	4.21	0.43	0	1	1	0	2	2,394.12	262	284	TRUE	
SNU216LR_PC4_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	3	5	5	0.03%	9.73%	SPNELVDDLFK	K	G	95.00%	2.27	0.33	0	1	0	0	2	1,356.61	116	126	TRUE	
SNU216LR_PC4_03	Structural maintenance of chromosome 1-like 1 p	REVERSE_IPI00291939-R	143,238.40	99.80%	1	1	1	0.01%	0.89%	QFLTGLDAVTK	K	H	95.00%	2.24	0.274	0	1	0	0	2	1,272.62	587	597	TRUE	
SNU216LR_PC4_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00033600	41,566.30	99.20%	1	1	1	0.01%	4.17%	GAGQQQSQEMMEVDR	R	R	90.80%	3	0.103	0	1	0	0	2	1,773.69	6	20	TRUE	
SNU216LR_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.60%	ETSVSKEDTDHEEK	K	A	95.00%	2.78	0.317	0	0	1	0	2	1,713.69	114	127	TRUE	
SNU216LR_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.60%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.19	0.267	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216LR_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.60%	QSNASSDVEVEEK	K	E	94.90%	2.39	0.19	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216LR_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.60%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	5.12	0.495	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216LR_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.60%	TGVTSTSDSEEEGDDQEGEKK	K	R	87.80%	3.54	0.0366	0	1	0	0	2	2,387.87	267	287	TRUE	
SNU216LR_PC4_03	Isoform CNPI of 2',3'-cyclic-nucleotide 3'-phosph	IPI00220993,IPI00306667	45,100.30	100.00%	1	1	1	0.01%	2.99%	NQWQLSADDLKK	K	L	95.00%	2.56	0.223	0	1	0	0	2	1,525.70	145	156	TRUE	
SNU216LR_PC4_03	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEK	K	D	95.00%	3.14	0.271	0	1	0	0	2	1,508.74	197	210	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEKDSVVSLESQK	K	T	95.00%	4.83	0.498	0	0	1	0	2	2,581.28	197	220	TRUE	
SNU216LR_PC4_03	Isoform 1 of RelA-associated inhibitor	IPI00439948	89,093.10	99.80%	2	3	3	0.02%	4.71%	HGGPGPGGPEPELSPITEGSEAR	R	A	95.00%	5.09	0.344	0	1	1	0	2	2,308.02	554	576	TRUE	
SNU216LR_PC4_03	Isoform 1 of RelA-associated inhibitor	IPI00439948	89,093.10	99.80%	2	3	3	0.02%	4.71%	SESAPTLHPYSPLSPK	R	G	95.00%	3.58	0.349	0	1	0	0	2	1,790.84	100	115	TRUE	
SNU216LR_PC4_03	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	3	3	0.02%	9.38%	GPGQPSSPQRLDR	K	L	93.20%	2.16	0.214	0	1	0	0	2	1,474.68	189	201	TRUE	
SNU216LR_PC4_03	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	3	3	0.02%	9.38%	HSLDSDEEEDDDDGGSSK	K	Y	95.00%	6.07	0.567	0	1	0	0	2	2,016.68	45	62	TRUE	
SNU216LR_PC4_03	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	3	3	0.02%	9.38%	KGPGQPSSPQRLDR	K	L	95.00%	2.46	0.251	0	0	1	0	2	1,602.78	188	201	TRUE	
SNU216LR_PC4_03	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	2	3	3	0.02%	4.29%	RGSSGSVVVDLLYWR	R	D	95.00%	3.59	0.382	0	1	1	0	2	1,773.87	179	193	TRUE	
SNU216LR_PC4_03	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	2	3	3	0.02%	4.29%	RRGSSGSVVVDLLYWR	K	D	95.00%	4.89	0.44	0	0	1	0	2	1,929.97	178	193	TRUE	
SNU216LR_PC4_03	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.70%	2	2	2	0.01%	3.56%	ALPNNTSSSPQPK	R	K	94.10%	2.23	0.226	0	1	0	0	2	1,420.65	307	319	TRUE	
SNU216LR_PC4_03	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.70%	2	2	2	0.01%	3.56%	RALPNNTSSSPQPK	K	K	95.00%	2.83	0.369	0	1	0	0	2	1,576.75	306	319	TRUE	
SNU216LR_PC4_03	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.32	0.403	0	1	0	0	2	1,872.96	270	286	TRUE	
SNU216LR_PC4_03	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	SASSDTSEELNSQDSPPK	R	Q	85.00%	4.06	0	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216LR_PC4_03	Isoform 1 of Hepatocyte growth factor receptor p	IPI00029273,IPI00294528	155,529.20	100.00%	1	1	3	0.02%	1.22%	SVSPTTEMVSNESVDYR	R	A	95.00%	2.71	0.318	0	3	0	0	2	1,980.83	988	1004	TRUE	
SNU216LR_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	5	0.03%	4.27%	AASPSPQSVR	K	R	94.20%	1.72	0.341	0	1	0	0	2	1,079.49	745	754	TRUE	
SNU216LR_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	5	0.03%	4.27%	APQTSSSPPPVR	K	R	95.00%	2.14	0.26	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216LR_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	5	0.03%	4.27%	KAASPSPQSVR	K	R	87.70%	2	0.221	0	2	0	0	2	1,207.58	744	754	TRUE	
SNU216LR_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	5	0.03%	4.27%	KETESEAEDNLDDLEK	K	H	95.00%	4.42	0.421	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC4_03	Probable ATP-dependent RNA helicase DDX48	IPI00009328	46,741.20	100.00%	1	1	1	0.01%	3.66%	KLDYGQHVVAGTPGR	R	V	89.80%	2.65	0.215	0	0	1	0	2	1,677.81	151	165	TRUE	
SNU216LR_PC4_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	9.90%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.26	0.172	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216LR_PC4_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	9.90%	EEVVGGDDSDGLR	R	A	95.00%	2.47	0.264	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216LR_PC4_03	heterogeneous nuclear ribonucleoprotein L isofor	IPI00027834	64,132.80	100.00%	1	1	1	0.01%	1.87%	ISRPGDSDDSR	K	S	95.00%	2.08	0.28	0	1	0	0	2	1,284.52	179	189	TRUE	
SNU216LR_PC4_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	3	4	4	0.02%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.63	0.445	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216LR_PC4_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	3	4	4	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIK	R	K	95.00%	2.99	0.265	0	0	1	0	2	2,730.29	8	32	TRUE	
SNU216LR_PC4_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	3	4	4	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	84.60%	4.95	0.0549	0	0	1	0	2	2,858.38	8	33	TRUE	
SNU216LR_PC4_03	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEK	R	E	95.00%	3.17	0.548	0	1	0	0	2	1,768.69	115	129	TRUE	
SNU216LR_PC4_03	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEKEVEALKK	R	S	95.00%	4.2	0.423	0	0	1	1	2	2,566.16	115	136	TRUE	
SNU216LR_PC4_03	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	3.06	0.407	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216LR_PC4_03	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	ENSPLNVS	K	-	95.00%	2.28	0.256	1	0	0	0	2	939.3819	288	295	TRUE	
SNU216LR_PC4_03	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	2.98	0.388	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216LR_PC4_03	Isoform 1 of Voltage-dependent anion-selective c	IPI00024145,IPI00216024,IP	38,093.80	100.00%	1	1	1	0.01%	4.03%	LTFDTTFSPNTGKK	K	S	95.00%	2.74	0.227	0	1	0	0	2	1,636.76	123	136	TRUE	
SNU216LR_PC4_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	3.61	0.439	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216LR_PC4_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.71	0.37	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216LR_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	5	5	0.03%	12.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.39	0.431	0	0	1	0	2	2,518.19	149	170	TRUE	
SNU216LR_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	5	5	0.03%	12.80%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.9	0.416	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216LR_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	5	5	0.03%	12.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	4.44	0.138	0	1	0	0	2	2,326.09	283	305	TRUE	
SNU216LR_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	5	5	0.03%	12.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.38	0.31	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216LR_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	5	5	0.03%	12.80%	SPGAPGPLTLK	R	E	92.40%	1.79	0.212	1	0	0	0	2	1,117.57	354	364	TRUE	
SNU216LR_PC4_03	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	2	3	0.02%	11.80%	EPVADEEEEDSDDDVEPITEFR	K	F	95.00%	3.11	0.369	0	1	0	0	2	2,645.03	92	113	TRUE	
SNU216LR_PC4_03	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	2	3	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	5.72	0.618	0	0	2	0	2	3,394.35	86	113	TRUE	
SNU216LR_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	6	6	0.04%	26.00%	AEDGATPSPSNETPK	K	K	95.00%	2.88	0.202	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	6	6	0.04%	26.00%	AEDGATPSPSNETPKK	K	K	95.00%	2.86	0.438	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	6	6	0.04%	26.00%	AEDGATPSPSNETPKKK	K	K	95.00%	3.1	0.263	0	0	1	0	2	1,836.84	137	153	TRUE	
SNU216LR_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	6	6	0.04%	26.00%	EELQANGSAPAADKEEPAAAGSGAASPSAA	K	G	95.00%	3.88	0.325	0	0	1	0	2	3,062.36	55	86	TRUE	
SNU216LR_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	6	6	0.04%	26.00%	GEAAAERPGEAAVASSPSK	K	A	95.00%	2.92	0.318	0	1	0	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	6	6	0.04%	26.00%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.39	0.452	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC4_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	5.48%	DLSPTLIDNSAAK	R	Q	95.00%	2.52	0.335	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216LR_PC4_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	5.48%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.89	0.306	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216LR_PC4_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	ADLNQGIGEPQSPSR	R	R	83.40%	2.35	0.177	0	1	0	0	2	1,648.73	63	77	TRUE	
SNU216LR_PC4_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	ADLNQGIGEPQSPSRR	R	V	95.00%	2.54	0.297	0	1	0	0	2	1,804.83	63	78	TRUE	
SNU216LR_PC4_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	RADLNQGIGEPQSPSR	R	R	95.00%	3.37	0.256	0	0	1	0	2	1,804.83	62	77	TRUE	
SNU216LR_PC4_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	RADLNQGIGEPQSPSRR	R	V	95.00%	4.04	0.464	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216LR_PC4_03	Protein C20orf77	IPI00009659	36,900.80	100.00%	2	3	4	0.02%	14.40%	LSMEDSKSPPPK	K	A	95.00%	3.14	0.48	0	2	1	0	2	1,395.62	127	138	TRUE	
SNU216LR_PC4_03	Protein C20orf77	IPI00009659	36,900.80	100.00%	2	3	4	0.02%	14.40%	RTFQQIQEEEDDDYPGSYSPQDPSAGPLLTE	K	A	92.70%	6.52	0.0337	0	0	1	0	2	4,075.83	148	182	TRUE	
SNU216LR_PC4_03	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	DDGSSMSFYVRPSPAK	R	R	95.00%	2.65	0.234	0	1	0	0	2	1,823.77	24	39	TRUE	
SNU216LR_PC4_03	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	YLLGDAPVSPSSQK	K	L	95.00%	2.7	0.345	0	1	0	0	2	1,541.72	195	208	TRUE	
SNU216LR_PC4_03	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	GDSESEEDEDLEVPVPSR	K	F	95.00%	4.3	0.567	0	2	0	0	2	2,148.79	75	92	TRUE	
SNU216LR_PC4_03	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	3.23	0.252	0	1	1	0	2	2,633.05	70	92	TRUE	
SNU216LR_PC4_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	18	0.11%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.91	0.596	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216LR_PC4_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	18	0.11%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	5.72	0.194	0	0	2	0	2	4,104.59	78	115	TRUE	
SNU216LR_PC4_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	18	0.11%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	8.12	0.24	0	0	4	10	2	4,260.69	78	116	TRUE	
SNU216LR_PC4_03	Isoform 1 of Actin-like protein 6A	IPI00003627,IPI00216622	47,461.10	100.00%	1	1	1	0.01%	1.86%	EGSPANWK	R	R	91.70%	1.71	0.255	0	1	0	0	2	968.3874	231	238	TRUE	
SNU216LR_PC4_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.80%	2	2	2	0.01%	2.67%	KMEESDEEAVQAK	R	V	95.00%	3.85	0.255	0	1	0	0	2	1,573.65	688	700	TRUE	
SNU216LR_PC4_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.80%	2	2	2	0.01%	2.67%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.05	0.302	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216LR_PC4_03	DnaJ homolog subfamily C member 9	IPI00154975	29,910.30	100.00%	1	1	1	0.01%	4.62%	KISLEDIQAFEK	K	T	95.00%	2.37	0.239	0	1	0	0	2	1,500.73	107	118	TRUE	
SNU216LR_PC4_03	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	1	1	1	0.01%	4.83%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	4.61	0.452	0	1	0	0	2	2,302.01	351	371	TRUE	
SNU216LR_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	ASPSKPASAPASR	R	S	95.00%	2.99	0.512	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	DMESPTKLDVTLAK	K	D	95.00%	3.45	0.299	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	DMSPLSETEMALGK	K	D	95.00%	2.92	0.405	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216LR_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	ETERASPIKMDLAPSK	K	D	95.00%	2.66	0.289	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216LR_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	4.99%	RASPSKPASAPASR	K	S	95.00%	2.4	0.313	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC4_03	Adhesion-regulating molecule 1 precursor	IPI00033030,IPI00470921	42,154.30	100.00%	1	1	1	0.01%	3.93%	SQSAAVTPSSTTSSTR	R	A	80.20%	2.23	0.168	0	1	0	0	2	1,647.72	211	226	TRUE	
SNU216LR_PC4_03	Tropomodulin-3	IPI00005087	39,596.10	100.00%	1	1	1	0.01%	5.40%	YKDLDEDELLGNLSETELK	K	Q	95.00%	3.09	0.236	0	0	1	0	2	2,304.05	12	30	TRUE	
SNU216LR_PC4_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	4	4	6	0.04%	11.80%	GDSESEEDEQDSEEVR	R	L	95.00%	3.08	0.543	0	1	0	0	2	1,999.63	13	28	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	4	4	6	0.04%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	3.57	0.594	0	2	0	0	2	2,155.73	12	28	TRUE	
SNU216LR_PC4_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	4	4	6	0.04%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	3.8	0.45	0	0	2	0	2	2,231.87	11	28	TRUE	
SNU216LR_PC4_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	4	4	6	0.04%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	3.74	0.385	0	0	1	0	2	1,887.86	250	265	TRUE	
SNU216LR_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	5	6	0.04%	17.70%	AHTPTPGIYMGR	R	P	85.60%	1.81	0.262	0	0	1	0	2	1,380.61	200	211	TRUE	
SNU216LR_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	5	6	0.04%	17.70%	AHTPTPGIYMGRPTHSGGGGGGGGGGGG	R	R	95.00%	5.45	0.494	0	0	1	2	2	2,871.25	200	232	TRUE	
SNU216LR_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	5	6	0.04%	17.70%	RAHTPTPGIYMGR	K	P	95.00%	3.36	0.407	0	0	1	0	2	1,536.71	199	211	TRUE	
SNU216LR_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	5	6	0.04%	17.70%	RSPSPYYSR	R	Y	92.00%	2.06	0.192	0	1	0	0	2	1,272.48	259	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	5	6	0.04%	17.70%	SPSPYYSR	R	Y	95.00%	1.49	0.302	2	0	0	0	2	1,116.38	260	267	FALSE	IPI00555647,IPI00301503
SNU216LR_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	4	5	6	0.04%	17.70%	SYTPEYR	R	R	85.60%	1.46	0.288	0	1	0	0	2	995.387	86	92	TRUE	
SNU216LR_PC4_03	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	2	2	0.01%	9.05%	KSPSGPVKSPPLSPVGTTPVK	R	L	95.00%	3.91	0.394	0	0	1	0	2	2,140.14	181	201	TRUE	
SNU216LR_PC4_03	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	2	2	0.01%	9.05%	SPSGPVKSPPLSPVGTTPVK	K	L	95.00%	3.19	0.219	0	1	0	0	2	2,092.01	182	201	TRUE	
SNU216LR_PC4_03	Isoform 1 of WD-repeat protein 74	IPI00018192	42,441.00	98.70%	1	1	1	0.01%	3.90%	KLSGLEQPQGALQTR	R	R	95.00%	3.15	0.254	0	1	0	0	2	1,705.86	359	373	TRUE	
SNU216LR_PC4_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.51	0.365	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216LR_PC4_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.57	0.341	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216LR_PC4_03	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	2	2	0.01%	18.00%	ELDEEGSDPPLPGR	R	A	95.00%	2.47	0.254	0	1	0	0	2	1,590.67	169	182	TRUE	
SNU216LR_PC4_03	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	2	2	0.01%	18.00%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.02	0.365	0	0	1	0	2	2,372.11	44	64	TRUE	
SNU216LR_PC4_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	4	4	0.02%	10.30%	GGSGSHNWGTVKDELTESPK	R	Y	95.00%	5.2	0.474	0	1	0	0	2	2,165.95	217	236	TRUE	
SNU216LR_PC4_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	4	4	0.02%	10.30%	GGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	3.56	0.165	0	0	0	1	2	2,698.25	217	240	TRUE	
SNU216LR_PC4_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	4	4	0.02%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	5.03	0.479	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216LR_PC4_03	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	40,772.50	99.80%	2	2	2	0.01%	3.04%	SRSPLELEPEAK	R	K	95.00%	3.24	0.269	0	1	0	0	2	1,435.68	24	35	TRUE	
SNU216LR_PC4_03	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	40,772.50	99.80%	2	2	2	0.01%	3.04%	SRSPLELEPEAKK	R	L	95.00%	3.02	0.376	0	0	1	0	2	1,563.78	24	36	TRUE	
SNU216LR_PC4_03	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	95.00%	2.35	0.283	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216LR_PC4_03	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	2	2	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.87	0.544	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216LR_PC4_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.58%	KKEEPSQNDISPK	K	T	95.00%	2.82	0.239	0	0	1	0	2	1,579.74	79	91	TRUE	
SNU216LR_PC4_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.58%	NEEPSEEEIDAPKPK	K	K	95.00%	3.61	0.321	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216LR_PC4_03	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	3	6	0.04%	7.59%	LGAGGGSPEKSPSAQELK	R	E	95.00%	3.16	0.303	0	2	0	0	2	1,872.81	13	30	TRUE	
SNU216LR_PC4_03	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	3	6	0.04%	7.59%	LGAGGGSPEKSPSAQELKEQGNR	R	L	95.00%	3.84	0.429	0	2	2	0	2	2,457.08	13	35	TRUE	
SNU216LR_PC4_03	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	100.00%	3	4	6	0.04%	11.00%	ANDEANQSDTSVSLSEPK	K	S	92.70%	3.34	0.0774	0	1	0	0	2	1,971.82	195	212	TRUE	
SNU216LR_PC4_03	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	100.00%	3	4	6	0.04%	11.00%	EKGPTTGEGALDLSDVHSPPKSPEGK	K	T	95.00%	4.51	0.494	0	0	1	3	2	2,793.24	139	164	TRUE	
SNU216LR_PC4_03	Isoform 1 of FGFR1 oncogene partner	IPI00013076,IPI00305013	43,066.80	100.00%	3	4	6	0.04%	11.00%	GPTTGEGALDLSDVHSPPKSPEGK	K	T	95.00%	3.51	0.301	0	0	1	0	2	2,456.13	141	164	TRUE	
SNU216LR_PC4_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	3	5	7	0.04%	12.10%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.01	0.513	0	1	2	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC4_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	3	5	7	0.04%	12.10%	QRSLGPSLATDKS	R	-	95.00%	2.79	0.476	0	1	0	0	2	1,439.69	268	280	TRUE	
SNU216LR_PC4_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	3	5	7	0.04%	12.10%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.35	0.574	0	2	1	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC4_03	syntaxin 7	IPI00289876,IPI00552913	29,815.60	99.80%	1	1	1	0.01%	5.75%	ASSRVSGSFPEDSSK	R	E	95.00%	3.31	0.25	0	1	0	0	2	1,620.69	124	138	TRUE	
SNU216LR_PC4_03	Cell division protein kinase 2	IPI00031681	33,930.70	99.80%	1	1	1	0.01%	7.72%	IGEGTYGVVYK	K	A	95.00%	1.92	0.358	0	2	0	0	2	1,265.58	10	20	FALSE	IPI00026689
SNU216LR_PC4_03	Cell division protein kinase 2	IPI00031681	33,930.70	99.80%	1	1	1	0.01%	7.72%	TYTHEVVTLWYR	R	A	95.00%	2.6	0.419	0	1	0	0	2	1,647.76	158	169	TRUE	
SNU216LR_PC4_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMR	R	K	95.00%	3.78	0.425	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216LR_PC4_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMRK	R	K	95.00%	4.39	0.449	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216LR_PC4_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	5	0.03%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	4.57	0.398	0	1	1	0	2	2,186.95	50	68	TRUE	
SNU216LR_PC4_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	5	0.03%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.41	0.4	0	2	1	0	2	1,764.73	99	114	TRUE	
SNU216LR_PC4_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	8	0.05%	11.00%	DDGDEEGLLTHSEEELEHSQDTDADDGALC	R	-	95.00%	4.97	0.286	0	0	1	0	2	3,350.30	261	290	TRUE	
SNU216LR_PC4_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	8	0.05%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	5.73	0.465	0	0	5	2	2	3,607.45	259	290	TRUE	
SNU216LR_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	4	4	0.02%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.41	0.357	0	0	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	4	4	0.02%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.67	0.35	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	4	4	0.02%	5.81%	TQTPPVSPAPQPTEER	K	L	91.50%	3.51	0.055	0	1	0	0	2	1,894.80	362	377	TRUE	
SNU216LR_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	4	4	0.02%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	4.46	0.466	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216LR_PC4_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.11%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.59	0.284	0	1	0	0	2	1,852.82	646	663	TRUE	
SNU216LR_PC4_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.11%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	4.97	0.481	0	0	1	0	2	3,031.34	330	356	TRUE	
SNU216LR_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.02%	24.50%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.88	0.419	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216LR_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.02%	24.50%	NEGSESAPEGQAQQR	K	R	95.00%	3.16	0.241	0	1	0	0	2	1,667.67	170	184	TRUE	
SNU216LR_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.02%	24.50%	NYQQNYQNSESGEK	R	N	95.00%	2.99	0.369	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216LR_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.02%	24.50%	RPQYSNPPVQGEVMEGADNQGAGEQGRI	R	Q	95.00%	4.65	0.356	0	0	0	1	2	3,303.50	204	233	TRUE	
SNU216LR_PC4_03	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	3	4	4	0.02%	16.40%	DSLGDFIEHYAQLGPSSPEQLAAGAEEGGG	R	R	95.00%	4.4	0.459	0	0	1	1	2	3,335.49	84	115	TRUE	
SNU216LR_PC4_03	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	3	4	4	0.02%	16.40%	GGGSGGGEESEGEEVDED	R	-	91.90%	2.2	0.274	0	1	0	0	2	1,775.58	294	311	TRUE	
SNU216LR_PC4_03	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	3	4	4	0.02%	16.40%	RGGGSGGGEESEGEEVDED	R	-	95.00%	3.42	0.569	0	1	0	0	2	1,931.68	293	311	TRUE	
SNU216LR_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	3	4	7	0.04%	9.01%	IDASKNEEDEGHSNSSPR	K	H	95.00%	4.83	0.463	0	2	2	0	2	2,051.83	68	85	TRUE	
SNU216LR_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	3	4	7	0.04%	9.01%	IFVGGLSPDTPEEK	K	I	95.00%	2.5	0.271	0	2	0	0	2	1,568.72	184	197	TRUE	
SNU216LR_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	3	4	7	0.04%	9.01%	NEEDEGHSNSSPR	K	H	95.00%	3.28	0.468	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216LR_PC4_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	2	2	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	95.00%	4.83	0.135	0	0	1	1	2	3,940.73	145	179	TRUE	
SNU216LR_PC4_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	1	1	1	0.01%	2.23%	QSVDKVTSPTKV	K	-	95.00%	2.89	0.172	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	22	0.13%	29.80%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	3.94	0.238	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	22	0.13%	29.80%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.93	0.404	0	1	1	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	22	0.13%	29.80%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.68	0.604	0	0	2	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	22	0.13%	29.80%	MQASIEKGGSLPK	K	V	95.00%	2.82	0.206	0	1	0	0	2	1,425.68	222	234	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	22	0.13%	29.80%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.65	0.356	0	0	2	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	22	0.13%	29.80%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	10.6	0.613	0	0	2	10	2	3,735.89	46	80	TRUE	
SNU216LR_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	21.10%	LLEDGEDFNLGDALDSSNSMQTIQK	R	T	95.00%	4.79	0.354	0	0	1	0	2	2,820.23	390	414	TRUE	
SNU216LR_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	21.10%	PVSSAASVYAGAGGSGSR	R	I	95.00%	3.06	0.391	0	1	0	0	2	1,660.73	28	45	TRUE	
SNU216LR_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	21.10%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	8.3	0.001	0	0	1	1	2	3,993.83	51	90	TRUE	
SNU216LR_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	4	5	5	0.03%	21.10%	VRSLETENR	R	R	95.00%	2.29	0.28	0	1	0	0	2	1,183.55	98	106	TRUE	
SNU216LR_PC4_03	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	2	4	0.02%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	6.02	0.527	0	0	2	2	2	3,901.66	12	44	TRUE	
SNU216LR_PC4_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	1	1	1	0.01%	6.31%	SWHDVQVSSAYVK	R	T	82.80%	2.13	0.179	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.47	0.349	0	3	1	0	2	1,812.79	2819	2836	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.8	0.418	0	1	1	0	2	1,997.91	2819	2838	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	FKAEAPLPSPK	K	L	95.00%	2.89	0.291	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	GGVTGSPEASISGSK	K	G	95.00%	2.6	0.394	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	GGVTGSPEASISGSKGDLK	K	S	90.80%	3.36	0.0652	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	GHYEVTGSDDETGK	K	L	95.00%	2.7	0.526	0	1	1	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.09	0.519	0	1	1	0	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	GKGGVTGSPEASISGSK	K	G	95.00%	3.67	0.176	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.49	0.463	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	SKGHYEVTGSDDETGK	K	L	95.00%	2.59	0.326	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	11	16	18	0.11%	2.67%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.81	0.308	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC4_03	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	2	3	0.02%	17.60%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.92	0.529	0	1	4	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC4_03	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	2	3	0.02%	17.60%	HASPILPITEFSDIPR	K	R	95.00%	2.97	0.219	0	1	0	0	2	1,872.93	304	319	TRUE	
SNU216LR_PC4_03	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	2	3	0.02%	17.60%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	5.12	0.284	0	0	2	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC4_03	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	2	3	0.02%	17.60%	SSTPLPTISSSAENTR	R	Q	95.00%	2.96	0.226	0	1	0	0	2	1,727.78	158	173	FALSE	IPI00216230
SNU216LR_PC4_03	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	99.80%	2	2	3	0.02%	5.09%	EGSQGELTPANSQSR	R	M	95.00%	3.25	0.502	0	2	0	0	2	1,640.69	508	522	TRUE	
SNU216LR_PC4_03	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	99.80%	2	2	3	0.02%	5.09%	NQIHVKSPPREGSQGELTPANSQSR	R	M	95.00%	3.65	0.259	0	0	0	1	2	2,797.34	498	522	TRUE	
SNU216LR_PC4_03	CDNA FLJ34719 fis, clone MESAN2005689, weakly	IPI00171390	37,477.60	99.80%	1	1	1	0.01%	8.33%	VSALEEDMDDVESSEEEEEEDEKLER	R	V	95.00%	4.27	0.357	0	0	1	0	2	3,230.20	181	206	TRUE	
SNU216LR_PC4_03	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	2	2	0.01%	10.70%	RASLSDLTDLEDIEGLTVR	R	Q	95.00%	4.52	0.502	0	0	1	0	2	2,183.06	238	256	TRUE	
SNU216LR_PC4_03	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	2	2	0.01%	10.70%	VPAEDETQSIDSEDSFVPGR	R	R	95.00%	4.22	0.439	0	1	0	0	2	2,257.95	218	237	TRUE	
SNU216LR_PC4_03	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	99.80%	2	3	3	0.02%	9.55%	SLHLSPQEQSASYQDR	K	R	95.00%	3.1	0.388	0	1	1	0	2	1,925.84	61	76	TRUE	
SNU216LR_PC4_03	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	99.80%	2	3	3	0.02%	9.55%	THDHQLESSLSPVEVFAK	K	T	95.00%	4.26	0.349	0	0	1	0	2	2,103.97	4	21	TRUE	
SNU216LR_PC4_03	N-terminal acetyltransferase complex ARD1 subuni	IPI00013184	26,459.00	100.00%	1	1	1	0.01%	5.96%	HVVLGAIENKVESK	R	G	95.00%	2.33	0.33	0	1	0	0	2	1,602.83	170	183	TRUE	
SNU216LR_PC4_03	Isoform AML-1I of Runt-related transcription facto	IPI00218529,IPI00218936,IP	50,761.70	99.80%	2	2	2	0.01%	6.41%	RFTPPSTALSPGK	R	M	95.00%	2.44	0.251	0	1	0	0	2	1,438.71	12	24	TRUE	
SNU216LR_PC4_03	Isoform AML-1I of Runt-related transcription facto	IPI00218529,IPI00218936,IP	50,761.70	99.80%	2	2	2	0.01%	6.41%	TAMRVSPHHPAPTPNPR	R	A	95.00%	2.99	0.229	0	0	0	1	2	1,945.92	207	223	TRUE	
SNU216LR_PC4_03	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	DATPPVSPINMEDQER	R	I	95.00%	2.7	0.362	0	1	0	0	2	1,958.76	253	268	TRUE	
SNU216LR_PC4_03	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	SRDATPPVSPINMEDQER	R	I	95.00%	3.39	0.241	0	0	1	0	2	2,201.89	251	268	TRUE	
SNU216LR_PC4_03	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	3	3	0.02%	12.20%	GPSWDPFRDWYPHSR	R	L	95.00%	2.83	0.41	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC4_03	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	3	3	0.02%	12.20%	QLSSGVSEIR	R	H	95.00%	2.21	0.341	1	1	0	0	2	1,155.54	80	89	TRUE	
SNU216LR_PC4_03	26 kDa protein	IPI00217978	26,288.40	99.80%	2	2	3	0.02%	16.00%	NRHSPDHPGMGSSQASSSSSLR	K	-	95.00%	4.41	0.479	0	0	2	0	2	2,362.00	223	244	TRUE	
SNU216LR_PC4_03	26 kDa protein	IPI00217978	26,288.40	99.80%	2	2	3	0.02%	16.00%	TQDPVPPETPSDSDHKK	R	K	95.00%	3.9	0.372	0	0	1	0	2	1,957.85	184	200	TRUE	
SNU216LR_PC4_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	4.21	0.375	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC4_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.01%	9.33%	SPEPGQTWTR	R	E	95.00%	2.15	0.349	0	1	0	0	2	1,238.52	94	103	TRUE	
SNU216LR_PC4_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	4.85%	KAEQGSEEEGEGEEEEEEEGGESK	K	A	95.00%	3.69	0.401	0	0	1	0	2	2,561.95	224	246	TRUE	
SNU216LR_PC4_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	4.85%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	3.92	0.437	0	1	1	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC4_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	5	0.03%	5.85%	GPTPPAMGPR	R	D	95.00%	1.94	0.493	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216LR_PC4_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	5	0.03%	5.85%	PAPPQEESPSSEAK	R	S	95.00%	2.43	0.272	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216LR_PC4_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	5	0.03%	5.85%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.42	0.33	0	1	1	0	2	1,989.93	111	129	TRUE	
SNU216LR_PC4_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	5	0.03%	5.85%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.77	0.432	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	4	4	0.02%	18.40%	GLGAGAGAGEESPATSLPR	R	M	95.00%	3.86	0.408	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	4	4	0.02%	18.40%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.96	0.475	0	1	1	0	2	2,159.93	200	217	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	3	4	4	0.02%	18.40%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	3.82	0.37	0	0	1	0	2	2,654.15	200	221	TRUE	
SNU216LR_PC4_03	Isoform 1 of Krueppel-like factor 3	IPI00027726	38,828.70	99.80%	2	2	2	0.01%	8.41%	RASPGLSMPSSSPPIKK	R	Y	95.00%	2.49	0.248	0	0	1	0	2	1,819.91	90	106	TRUE	
SNU216LR_PC4_03	Isoform 1 of Krueppel-like factor 3	IPI00027726	38,828.70	99.80%	2	2	2	0.01%	8.41%	RPLPVESPDTQR	K	K	95.00%	2.8	0.343	0	1	0	0	2	1,474.71	244	255	TRUE	
SNU216LR_PC4_03	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	2	2	2	0.01%	6.97%	IGHHSTSDDSSAYR	R	S	95.00%	2.4	0.352	0	1	0	0	2	1,612.64	367	380	TRUE	
SNU216LR_PC4_03	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	2	2	2	0.01%	6.97%	SVDEVNYWDKQDHPISR	R	L	95.00%	5.14	0.536	0	0	1	0	2	2,167.94	381	397	TRUE	
SNU216LR_PC4_03	Stomatin-like protein 2	IPI00334190	38,534.50	100.00%	1	1	1	0.01%	4.49%	APVPGTPDSLSSGSSR	K	D	95.00%	2.19	0.295	0	1	0	0	2	1,594.71	322	337	TRUE	
SNU216LR_PC4_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.20%	2	4	4	0.02%	12.10%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	83.40%	6.14	0.0113	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216LR_PC4_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.20%	2	4	4	0.02%	12.10%	QASTDAGTAGALTPQHVR	R	A	95.00%	4.22	0.554	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216LR_PC4_03	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	ANSALTPPKPESGLTLQESNTPGLR	R	Q	95.00%	3.58	0.352	0	0	1	0	2	2,658.31	451	475	TRUE	
SNU216LR_PC4_03	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	SGVGLSSYLSTEKDASPK	R	T	95.00%	4.28	0.502	0	0	1	0	2	1,905.88	487	504	TRUE	
SNU216LR_PC4_03	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.80%	2	2	3	0.02%	14.60%	GSYNGQVGWFPSNYVTEEGDSPLGDHVGS	R	L	95.00%	3.51	0.311	0	0	1	0	2	3,592.55	146	178	TRUE	
SNU216LR_PC4_03	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.80%	2	2	3	0.02%	14.60%	RKPSVPDSASPADDSFVDPGER	K	L	95.00%	4.45	0.392	0	0	2	0	2	2,409.07	82	103	TRUE	
SNU216LR_PC4_03	Hsc70-interacting protein	IPI00032826	41,332.40	100.00%	1	2	3	0.02%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	4.45	0.461	0	1	2	0	2	2,665.11	64	85	TRUE	
SNU216LR_PC4_03	Density-regulated protein	IPI00306280	22,285.70	99.80%	1	1	1	0.01%	13.10%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	5.26	0.466	0	0	1	0	2	2,797.24	69	94	TRUE	
SNU216LR_PC4_03	MARCKS-related protein	IPI00641181	19,397.40	99.80%	1	1	1	0.01%	7.73%	GDVTAEEAAGASPAK	R	A	95.00%	3.42	0.287	0	1	0	0	2	1,453.62	10	24	TRUE	
SNU216LR_PC4_03	Synapse-associated protein 1	IPI00059242	39,933.40	99.80%	1	1	1	0.01%	1.99%	TPPVVIK	K	S	95.00%	1.55	0.229	1	0	0	0	2	833.4534	248	254	TRUE	
SNU216LR_PC4_03	40S ribosomal protein S2	IPI00013485	31,325.20	100.00%	1	1	1	0.01%	3.07%	TQAPAVATT	R	-	95.00%	1.54	0.222	1	0	0	0	2	939.4184	285	293	TRUE	
SNU216LR_PC4_03	Emerin	IPI00032003	28,994.90	100.00%	1	1	1	0.01%	8.66%	RLSPPSSAASSYSFSDLNSTR	R	G	95.00%	5.13	0.106	0	1	0	0	2	2,397.07	47	68	TRUE	
SNU216LR_PC4_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	3	4	0.02%	2.43%	RRSPPADAIPK	K	S	95.00%	3.15	0.315	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216LR_PC4_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	3	4	0.02%	2.43%	SPPADAIPK	R	S	84.50%	1.63	0.223	1	1	0	0	2	975.4549	11	19	TRUE	
SNU216LR_PC4_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	2	0.01%	5.63%	DRDYSDHPSGGSYR	R	D	95.00%	2.71	0.338	0	0	1	0	2	1,691.64	269	282	TRUE	
SNU216LR_PC4_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	2	2	2	0.01%	5.63%	GLPPSMER	R	G	95.00%	1.73	0.371	0	1	0	0	2	966.4116	348	355	TRUE	
SNU216LR_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	21	0.13%	21.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.34	0.268	1	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	21	0.13%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDK	K	E	95.00%	5.95	0.552	0	0	1	0	2	2,989.16	143	168	TRUE	
SNU216LR_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	21	0.13%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	8.79	0.546	0	0	8	6	2	3,657.52	143	174	TRUE	
SNU216LR_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	21	0.13%	21.40%	LNVLEKSSPGHR	R	A	95.00%	2.86	0.223	0	1	1	0	2	1,416.70	111	122	TRUE	
SNU216LR_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	21	0.13%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	E	95.00%	5.88	0.427	0	0	1	0	2	3,529.43	144	174	TRUE	
SNU216LR_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	21	0.13%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	L	95.00%	4.14	0.339	0	0	0	1	2	3,943.62	144	177	TRUE	
SNU216LR_PC4_03	PREDICTED: similar to basic leucine zipper and W	IPI00005681	34,091.00	100.00%	1	1	2	0.01%	4.70%	NAEEESESEAEEGD	K	-	95.00%	2.07	0.477	0	2	0	0	2	1,604.51	285	298	TRUE	
SNU216LR_PC4_03	Isoform 1 of Negative elongation factor E	IPI00000858,IPI00154408	36,980.30	99.80%	2	2	2	0.01%	8.16%	SISADDDLQESSR	R	R	95.00%	2.43	0.374	0	1	0	0	2	1,502.60	113	125	TRUE	
SNU216LR_PC4_03	Isoform 1 of Negative elongation factor E	IPI00000858,IPI00154408	36,980.30	99.80%	2	2	2	0.01%	8.16%	SLSEQPVMDTATATEQAK	R	Q	95.00%	3.33	0.4	0	1	0	0	2	1,986.87	49	66	TRUE	
SNU216LR_PC4_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	98.90%	1	1	1	0.01%	0.98%	QSPASPPPLGGGAPVR	R	T	95.00%	2.66	0.373	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216LR_PC4_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.10%	2	2	2	0.01%	4.37%	RYPSSISSSPQKDLTQAK	R	N	95.00%	2.91	0.242	0	0	1	0	2	2,073.00	603	620	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	99.10%	2	2	2	0.01%	4.37%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	82.20%	2.52	0.182	0	0	1	0	2	2,612.09	462	486	TRUE	
SNU216LR_PC4_03	Methylosome protein 50	IPI00012202	36,723.20	100.00%	2	2	2	0.01%	4.39%	KETPPPLVPPAAR	R	E	95.00%	2.21	0.347	0	1	0	0	2	1,452.76	3	15	TRUE	
SNU216LR_PC4_03	Methylosome protein 50	IPI00012202	36,723.20	100.00%	2	2	2	0.01%	4.39%	MRKETPPPLVPPAAR	-	E	95.00%	2.78	0.174	0	0	1	0	2	1,739.90	1	15	TRUE	
SNU216LR_PC4_03	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	2	2	2	0.01%	14.70%	ELEAIFGRPVVDGEEGEPHSISPR	K	P	95.00%	4.37	0.319	0	0	1	0	2	2,700.27	274	297	TRUE	
SNU216LR_PC4_03	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	2	2	2	0.01%	14.70%	RKPVLPALTINPTIAEGPSPTSEGASEANLVD	R	K	95.00%	9.46	0.0033	0	0	1	0	2	3,693.91	5	39	TRUE	
SNU216LR_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	6	7	7	0.04%	15.50%	EESEEEEDEDDEEEEEEEK	R	E	95.00%	4.33	0.689	0	1	0	0	2	2,465.79	30	48	TRUE	
SNU216LR_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	6	7	7	0.04%	15.50%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.96	0.64	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216LR_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	6	7	7	0.04%	15.50%	EESSDDEDKESEEEPPKK	K	T	94.70%	2.03	0.263	0	0	1	0	2	2,346.78	241	258	TRUE	
SNU216LR_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	6	7	7	0.04%	15.50%	KESESEDSSDDEPLIK	K	K	85.80%	2.34	0.197	0	1	0	0	2	1,967.74	299	314	TRUE	
SNU216LR_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	6	7	7	0.04%	15.50%	KESESEDSSDDEPLIKK	K	L	95.00%	2.48	0.303	0	1	0	0	2	2,095.84	299	315	TRUE	
SNU216LR_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	6	7	7	0.04%	15.50%	NKEESSDDEDKESEEEPPK	K	K	95.00%	2.27	0.521	0	1	0	0	2	2,460.83	239	257	TRUE	
SNU216LR_PC4_03	Isoform IB of Tyrosine-protein kinase ABL2	IPI00329488,IPI00383728,IP	126,685.70	99.80%	2	2	2	0.01%	2.28%	ESESSPGQLSISLR	R	Y	95.00%	2.67	0.186	0	1	0	0	2	1,569.72	184	197	TRUE	
SNU216LR_PC4_03	Isoform IB of Tyrosine-protein kinase ABL2	IPI00329488,IPI00383728,IP	126,685.70	99.80%	2	2	2	0.01%	2.28%	GAQASSGSPALPR	R	K	95.00%	2.47	0.226	0	1	0	0	2	1,278.58	598	610	TRUE	
SNU216LR_PC4_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.54%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	3.67	0.284	0	0	1	0	2	2,206.01	40	59	TRUE	
SNU216LR_PC4_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.54%	ATSPVKSTTSITDAK	K	S	95.00%	3.11	0.48	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216LR_PC4_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.54%	TPISPLKTGVSKPIVK	K	S	95.00%	3.31	0.441	0	0	1	0	2	1,745.00	320	335	TRUE	
SNU216LR_PC4_03	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	95.00%	3.87	0.109	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216LR_PC4_03	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.92	0.536	0	1	1	0	2	2,394.07	428	451	TRUE	
SNU216LR_PC4_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.94	0.329	0	2	2	0	2	1,673.69	221	235	TRUE	
SNU216LR_PC4_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.64	0.448	0	0	2	0	2	1,801.79	221	236	TRUE	
SNU216LR_PC4_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	AGLGSPERPPK	R	T	95.00%	1.91	0.269	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216LR_PC4_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	2.81	0.226	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216LR_PC4_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	LGGLRPESPESLTSVSR	R	T	95.00%	2.79	0.328	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216LR_PC4_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.98	0.577	0	1	1	0	2	2,383.10	72	94	TRUE	
SNU216LR_PC4_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	4	7	0.04%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	2.49	0.283	0	0	1	0	2	1,548.75	298	311	TRUE	
SNU216LR_PC4_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	4	7	0.04%	3.80%	SGPKPFSAPKPQTSPSPK	K	R	95.00%	3.9	0.501	0	2	3	1	2	1,917.95	294	311	TRUE	
SNU216LR_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	5.43%	HGSDPAFAPGPR	R	G	95.00%	2.78	0.549	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	5.43%	KGSPTPGFSTR	R	R	95.00%	2.18	0.26	0	1	0	0	2	1,214.56	879	889	TRUE	
SNU216LR_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	5.43%	RLSLGQGDSTEAATEER	R	G	95.00%	4.19	0.422	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	5.43%	RLSLGQGDSTEAATEERGPR	R	A	92.30%	2.72	0.179	0	0	1	0	2	2,210.02	1001	1020	TRUE	
SNU216LR_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	5.43%	RMEDEGGFPVPQENGQPESPR	R	R	92.60%	3.12	0.179	0	0	1	0	2	2,436.03	980	1000	TRUE	
SNU216LR_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	5.43%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	3.17	0.261	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216LR_PC4_03	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	2	2	2	0.01%	4.82%	EDLSPAFDHSPNK	K	I	95.00%	3.09	0.329	0	1	0	0	2	1,536.64	295	307	TRUE	
SNU216LR_PC4_03	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	2	2	2	0.01%	4.82%	ELSKEDLSPAFDHSPNK	K	I	95.00%	4.12	0.373	0	1	0	0	2	1,993.89	291	307	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	EESDGEYDEFGR	R	K	95.00%	2.98	0.545	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.42	0.455	0	1	1	0	2	2,545.00	110	129	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	3.22	0.299	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.98	0.597	0	0	1	1	2	2,419.90	147	166	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	SRSPESQVIGENTK	R	Q	95.00%	3.21	0.418	0	2	0	0	2	1,611.74	305	318	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	SRSPESQVIGENTKQP	R	-	95.00%	2.86	0.304	0	1	0	0	2	1,836.85	305	320	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	YNLDASEEEDSNK	K	K	95.00%	2.22	0.344	0	1	0	0	2	1,593.60	183	195	TRUE	
SNU216LR_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	8	10	11	0.07%	22.20%	YNLDASEEEDSNKK	K	K	95.00%	3.08	0.267	0	1	0	0	2	1,721.69	183	196	TRUE	
SNU216LR_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	4	4	0.02%	8.86%	DYDDMSPR	R	R	85.20%	1.52	0.142	1	0	0	0	2	1,078.35	279	286	TRUE	
SNU216LR_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	4	4	0.02%	8.86%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.09	0.29	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	4	4	0.02%	8.86%	IILDLISESPIKGR	K	A	95.00%	3.04	0.269	0	1	1	0	2	1,633.89	208	221	TRUE	
SNU216LR_PC4_03	palladin	IPI00292009	122,047.90	100.00%	3	4	4	0.02%	3.53%	SLPTPAVLLSPTKEPPPLLAKPK	K	L	95.00%	3.59	0.419	0	0	1	1	2	2,474.40	632	654	TRUE	
SNU216LR_PC4_03	palladin	IPI00292009	122,047.90	100.00%	3	4	4	0.02%	3.53%	SRDSGDENEPIQER	R	F	83.40%	2.38	0.209	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216LR_PC4_03	palladin	IPI00292009	122,047.90	100.00%	3	4	4	0.02%	3.53%	SRSRDSGDENEPIQER	R	F	95.00%	2.27	0.282	0	1	0	0	2	2,114.76	892	907	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	2.37	0.26	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.42	0.561	0	1	1	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	3.88	0.304	0	0	1	0	2	2,504.04	172	192	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	GDQPAASGDSDDDEPPPLPR	K	L	95.00%	4.43	0.549	0	1	0	0	2	2,115.85	47	66	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	4.36	0.344	0	0	1	0	2	2,484.10	44	66	TRUE	
SNU216LR_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	6	8	8	0.05%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.59	0.463	0	0	1	1	2	2,730.20	169	191	TRUE	
SNU216LR_PC4_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	3.38%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	4.19	0.391	0	1	1	0	2	2,017.81	298	317	TRUE	
SNU216LR_PC4_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	3.38%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.8	0.382	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	5.06	0.419	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	IESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	4.04	0.533	0	1	0	0	2	2,567.11	103	124	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	KKDASDDLDDLNFFNQK	R	K	95.00%	4.1	0.188	0	0	1	0	2	2,092.92	63	79	TRUE	
SNU216LR_PC4_03	Hypothetical protein LOC144097	IPI00106955	41,036.50	98.80%	1	1	1	0.01%	7.09%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	4.67	0.615	0	0	1	0	2	2,916.11	144	170	TRUE	
SNU216LR_PC4_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.81	0.483	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC4_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	4.87	0.395	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC4_03	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	4	0.02%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	4.73	0.635	0	3	0	0	2	2,304.83	179	197	TRUE	
SNU216LR_PC4_03	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	4	0.02%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.76	0.446	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216LR_PC4_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	99.80%	2	3	3	0.02%	7.93%	SQRYSGAYGASVSDEELK	K	R	95.00%	3.89	0.316	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216LR_PC4_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	99.80%	2	3	3	0.02%	7.93%	YSGAYGASVSDEELK	R	R	95.00%	3.66	0.457	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216LR_PC4_03	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.80%	1	1	1	0.01%	0.06%	DPIYPPDPPIKLKIGLITK	R	N	95.00%	2.92	0.313	0	0	0	1	2	2,198.22	16842	16860	TRUE	
SNU216LR_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	6	6	0.04%	10.70%	ETPHSPGVEDAPIAK	R	V	95.00%	3.04	0.34	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	6	6	0.04%	10.70%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.9	0.429	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	6	6	0.04%	10.70%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.8	0.478	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	6	6	0.04%	10.70%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.68	0.451	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 3 subunit 1	IPI00290461	29,063.30	99.20%	1	1	1	0.01%	7.75%	RLEEPEEPKVLTPEEQLADK	K	L	84.00%	2.55	0.186	0	0	1	0	2	2,430.18	98	117	TRUE	
SNU216LR_PC4_03	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	5	0.03%	15.00%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	5.32	0.558	0	2	2	0	2	2,575.01	239	266	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	5	0.03%	15.00%	NMGGPYGGGNYGPGGSGGSGGYGGR	R	S	95.00%	4.72	0.0187	0	1	0	0	2	2,269.87	326	350	TRUE	
SNU216LR_PC4_03	Pyruvate dehydrogenase E1 component alpha sul	IPI00306301	43,296.50	100.00%	1	2	2	0.01%	3.59%	YHGHSMSDPGVSYR	R	T	95.00%	2.31	0.247	0	1	1	0	2	1,672.66	289	302	TRUE	
SNU216LR_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.02%	12.00%	GSSGSPAHAESYSSGGGGQQK	R	F	82.90%	3.75	0.0015	0	1	0	0	2	2,015.81	15	35	TRUE	
SNU216LR_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.02%	12.00%	ISPEERRSPPAPGLQPMR	K	S	95.00%	3.28	0.235	0	0	1	0	2	2,098.03	193	210	TRUE	
SNU216LR_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.02%	12.00%	RSPPAPGLQPMR	R	S	95.00%	2.66	0.273	0	1	0	0	2	1,386.67	199	210	TRUE	
SNU216LR_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.02%	12.00%	SPPAPGLQPMR	R	S	95.00%	2.14	0.386	0	1	0	0	2	1,230.57	200	210	TRUE	
SNU216LR_PC4_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	4	0.02%	6.85%	KTAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	4.48	0.316	0	0	0	1	2	2,905.25	133	157	TRUE	
SNU216LR_PC4_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	4	0.02%	6.85%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	6.69	0.565	0	1	1	1	2	2,777.16	134	157	TRUE	
SNU216LR_PC4_03	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	83.30%	3.58	0.0183	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216LR_PC4_03	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	99.80%	2	2	2	0.01%	7.80%	KVTFFEPGSGDENGTSNKEDEFR	R	M	95.00%	2.95	0.293	0	0	1	0	2	2,670.14	301	323	TRUE	
SNU216LR_PC4_03	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	99.80%	2	2	2	0.01%	7.80%	TKPIVKPQTSPEYGQGINPISR	K	L	95.00%	3.85	0.352	0	0	1	0	2	2,490.28	188	209	TRUE	
SNU216LR_PC4_03	40S ribosomal protein S3a	IPI00419880	29,814.10	100.00%	1	2	2	0.01%	4.56%	ADGYEPPVQESV	R	-	95.00%	2.34	0.438	1	1	0	0	2	1,370.55	252	263	TRUE	
SNU216LR_PC4_03	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	5	6	0.04%	17.30%	APAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	3.4	0.327	0	0	1	0	2	2,494.05	51	73	TRUE	
SNU216LR_PC4_03	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	5	6	0.04%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	K	95.00%	5.45	0.388	0	0	1	0	2	2,890.36	20	49	TRUE	
SNU216LR_PC4_03	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	5	6	0.04%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	A	95.00%	5.31	0.424	0	0	1	1	2	3,018.46	20	50	TRUE	
SNU216LR_PC4_03	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	4	5	6	0.04%	17.30%	KAPAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	3.83	0.38	0	0	2	0	2	2,622.15	50	73	TRUE	
SNU216LR_PC4_03	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.40%	2	2	2	0.01%	3.34%	ANSWQLVETPEK	K	R	87.50%	2.39	0.164	0	1	0	0	2	1,481.67	904	915	TRUE	
SNU216LR_PC4_03	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.40%	2	2	2	0.01%	3.34%	QNSATESADSIEIYVPEAQTR	R	-	95.00%	5.02	0.561	0	1	0	0	2	2,389.06	968	988	TRUE	
SNU216LR_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	4.72	0.296	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216LR_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	4.82	0.0554	0	1	1	0	2	3,118.29	334	362	TRUE	
SNU216LR_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DLHQGIEAASDEEDLR	R	W	95.00%	3.25	0.356	0	1	0	0	2	1,877.79	267	282	TRUE	
SNU216LR_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	3.92	0.379	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216LR_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	GGRSPDEVTLTSIVPTR	K	D	95.00%	3.1	0.412	0	0	1	1	2	1,864.92	317	333	TRUE	
SNU216LR_PC4_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	HQTLEVSLSRDSPLK	K	T	95.00%	3.04	0.223	0	0	1	0	2	1,789.88	358	372	TRUE	
SNU216LR_PC4_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	4.18	0.447	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216LR_PC4_03	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	3	3	4	0.02%	11.60%	SLPVSVPVWGFK	K	E	95.00%	2.73	0.51	0	1	0	0	2	1,395.71	203	214	TRUE	
SNU216LR_PC4_03	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	3	3	4	0.02%	11.60%	SSDEENGPPSSPDLDR	R	I	95.00%	3.24	0.432	0	2	0	0	2	1,781.69	222	237	TRUE	
SNU216LR_PC4_03	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	3	3	4	0.02%	11.60%	TEARSSDEENGPPSSPDLDR	R	I	93.70%	4.22	0.0053	0	1	0	0	2	2,318.88	218	237	TRUE	
SNU216LR_PC4_03	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	4.34	0.412	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216LR_PC4_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	3	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.42	0.412	0	2	0	0	2	1,796.71	490	504	TRUE	
SNU216LR_PC4_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	3	0.02%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.16	0.196	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	3.98	0.543	0	1	1	0	2	2,506.85	272	293	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.85	0.49	0	2	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	4.2	0.513	0	3	2	0	2	2,794.96	238	262	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	7.35	0.442	0	0	1	1	2	3,790.49	238	271	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	6.57	0.602	0	0	4	4	2	4,293.68	238	275	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	NDKSEEEQSSSSVK	K	K	95.00%	3.47	0.486	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	4.08	0.307	0	1	2	0	2	2,336.00	211	230	TRUE	
SNU216LR_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	13	24	0.14%	28.30%	SEEEQSSSSVKKDETNVK	K	M	95.00%	2.53	0.429	0	1	0	0	2	2,090.91	220	237	TRUE	
SNU216LR_PC4_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	3.35	0.444	0	2	0	0	2	1,529.66	311	325	TRUE	
SNU216LR_PC4_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	4	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	4.88	0.552	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216LR_PC4_03	Isoform 3 of Tropomyosin 1 alpha chain	IPI00216135	32,877.10	100.00%	1	1	1	0.01%	2.82%	SIDDLEEK	K	V	95.00%	1.84	0.254	1	0	0	0	2	1,028.42	252	259	TRUE	
SNU216LR_PC4_03	Calumenin precursor	IPI00014537	38,052.00	100.00%	1	1	1	0.01%	9.91%	VHHEPQLSDKVHNDAQSFDYDHDAFLGAI	R	T	95.00%	4.54	0.376	0	0	0	1	2	3,729.62	36	67	TRUE	
SNU216LR_PC4_03	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	3	3	0.02%	7.69%	KSASPEVSEGHENQHGQESEAK	R	A	95.00%	4.97	0.43	0	0	1	1	2	2,445.03	73	94	TRUE	
SNU216LR_PC4_03	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	3	3	0.02%	7.69%	SASPEVSEGHENQHGQESEAK	K	A	95.00%	3.35	0.338	0	0	1	0	2	2,316.94	74	94	TRUE	
SNU216LR_PC4_03	Isoform Short of Ubiquitin fusion degradation pro	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIK	K	R	95.00%	3.46	0.373	0	1	0	0	2	1,600.80	241	255	TRUE	
SNU216LR_PC4_03	Isoform Short of Ubiquitin fusion degradation pro	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIKR	K	G	95.00%	2.94	0.496	0	1	1	0	2	1,756.90	241	256	TRUE	
SNU216LR_PC4_03	28 kDa protein	IPI00063387	28,278.70	99.80%	2	3	3	0.02%	7.91%	RTPAPPEPGSPAPGEGPSGR	R	K	95.00%	3.89	0.407	0	1	1	0	2	1,993.91	171	190	TRUE	
SNU216LR_PC4_03	28 kDa protein	IPI00063387	28,278.70	99.80%	2	3	3	0.02%	7.91%	TPAPPEPGSPAPGEGPSGR	R	K	95.00%	3.78	0.508	0	1	0	0	2	1,837.81	172	190	TRUE	
SNU216LR_PC4_03	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	1	2	8	0.05%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.91	0.555	3	5	0	0	2	1,202.58	301	311	TRUE	
SNU216LR_PC4_03	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	KLENSPLGEALR	K	S	86.80%	2.78	0.0893	0	1	0	0	2	1,406.70	104	115	TRUE	
SNU216LR_PC4_03	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	LENSPLGEALR	K	S	95.00%	2.14	0.288	0	1	0	0	2	1,278.61	105	115	TRUE	
SNU216LR_PC4_03	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	RSSPPGHYYQK	R	S	95.00%	3.44	0.346	0	1	1	0	2	1,399.62	121	131	TRUE	
SNU216LR_PC4_03	Fructose-bisphosphate aldolase A	IPI00465439	39,289.40	100.00%	1	1	1	0.01%	4.13%	GILAADESTGSIAKR	K	L	95.00%	2.33	0.256	0	1	0	0	2	1,568.77	28	42	TRUE	
SNU216LR_PC4_03	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.38	0.233	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216LR_PC4_03	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	2.91	0.181	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216LR_PC4_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	5	5	0.03%	8.98%	RPDPDSDEDEDYER	R	E	95.00%	4.04	0.59	0	1	1	0	2	1,817.65	57	70	TRUE	
SNU216LR_PC4_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	5	5	0.03%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	3.25	0.36	0	1	1	0	2	2,102.79	57	72	TRUE	
SNU216LR_PC4_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	5	5	0.03%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.28	0.583	0	1	0	0	2	2,052.92	129	148	TRUE	
SNU216LR_PC4_03	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	99.80%	2	2	2	0.01%	3.20%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	2.6	0.259	0	0	1	0	2	1,957.90	293	311	TRUE	
SNU216LR_PC4_03	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	99.80%	2	2	2	0.01%	3.20%	SPSPPDGSPAATPEIR	K	V	95.00%	2.71	0.388	0	1	0	0	2	1,658.74	296	311	TRUE	
SNU216LR_PC4_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.80%	2	2	2	0.01%	1.34%	RPESPSEISPIK	K	G	95.00%	2.99	0.223	0	1	0	0	2	1,419.69	262	273	TRUE	
SNU216LR_PC4_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.80%	2	2	2	0.01%	1.34%	RPESPSEISPIKGSVR	K	T	95.00%	2.94	0.196	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216LR_PC4_03	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	3.89%	AGGLDWPEATEVSPSR	R	T	95.00%	3.22	0.377	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC4_03	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	3.89%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.18	0.394	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216LR_PC4_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	5	5	0.03%	11.90%	KDDEDEEEEEEVSDS	R	-	95.00%	3.51	0.619	0	1	0	0	2	1,863.62	382	396	TRUE	
SNU216LR_PC4_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	5	5	0.03%	11.90%	QERLSPEVAPPAHR	K	R	95.00%	2.34	0.373	0	1	1	0	2	1,666.81	31	44	TRUE	
SNU216LR_PC4_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	5	5	0.03%	11.90%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.83	0.329	0	1	1	0	2	1,911.83	45	62	TRUE	
SNU216LR_PC4_03	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	100.00%	2	3	4	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.36	0.357	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216LR_PC4_03	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	100.00%	2	3	4	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	3.86	0.432	0	2	1	0	2	2,056.96	75	92	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.80%	2	3	3	0.02%	2.95%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3	0.355	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216LR_PC4_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.80%	2	3	3	0.02%	2.95%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.26	0.341	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216LR_PC4_03	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	2	2	3	0.02%	5.24%	VDGPRSPSYGR	K	S	95.00%	2.1	0.25	0	1	0	0	2	1,270.56	194	204	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC4_03	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	2	2	3	0.02%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.58	0.388	0	0	2	0	2	1,497.72	192	204	TRUE	
SNU216LR_PC4_03	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.10%	2	2	2	0.01%	11.80%	EMPQDLRSPARTPPSEEDSAEAER	K	L	82.50%	2.83	0.17	0	0	1	0	2	2,858.17	70	93	TRUE	
SNU216LR_PC4_03	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.10%	2	2	2	0.01%	11.80%	SRTPSASNDDQQE	R	-	95.00%	2.52	0.261	0	1	0	0	2	1,514.58	301	313	TRUE	
SNU216LR_PC5_03	N-terminal acetyltransferase complex ARD1 subui	IPI00013184	26,459.00	100.00%	1	1	1	0.01%	5.96%	HVVLGAIENKVESK	R	G	95.00%	2.57	0.214	0	1	0	0	2	1,602.83	170	183	TRUE	
SNU216LR_PC5_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	1	1	1	0.01%	3.09%	IPSKEEEADMSSPTQR	K	T	95.00%	2.22	0.293	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216LR_PC5_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	2	0.01%	14.50%	GRLSPVPVPR	R	A	91.20%	1.94	0.274	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216LR_PC5_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	2	0.01%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	4.05	0.416	0	0	0	1	2	3,607.45	259	290	TRUE	
SNU216LR_PC5_03	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	99.30%	1	1	1	0.01%	20.00%	PGPTPSGTNVGSSGRSPSK	-	A	86.70%	3.41	0.0568	0	1	0	0	2	1,849.84	1	19	TRUE	
SNU216LR_PC5_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	2	2	0.01%	8.54%	SAMPFTASPASSTTAR	R	V	81.50%	2.25	0.18	0	1	0	0	2	1,662.72	122	137	TRUE	
SNU216LR_PC5_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	2	2	0.01%	8.54%	VWSPLVTEEGKR	K	H	95.00%	3.08	0.248	0	0	1	0	2	1,480.72	87	98	TRUE	
SNU216LR_PC5_03	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	100.00%	3	3	3	0.02%	12.60%	RGEAAGSPVPTPPR	R	S	95.00%	2.44	0.228	0	1	0	0	2	1,471.71	107	120	TRUE	
SNU216LR_PC5_03	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	100.00%	3	3	3	0.02%	12.60%	RGEAAGSPVPTPPRSPAQEEPTDFLSR	R	L	95.00%	4.02	0.287	0	0	1	0	2	3,089.32	107	133	TRUE	
SNU216LR_PC5_03	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	100.00%	3	3	3	0.02%	12.60%	SPPSPELQGPPSTEK	K	E	95.00%	3.08	0.474	0	1	0	0	2	1,630.74	192	206	TRUE	
SNU216LR_PC5_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	6.91%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.85	0.343	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216LR_PC5_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	6.91%	SSPQLDPLR	R	K	95.00%	1.64	0.343	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216LR_PC5_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	6	0.03%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	3.74	0.39	0	1	1	0	2	2,319.81	56	73	TRUE	
SNU216LR_PC5_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	6	0.03%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.85	0.643	0	1	0	0	2	2,111.75	57	73	TRUE	
SNU216LR_PC5_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	6	0.03%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	4.06	0.539	0	1	2	0	2	2,347.81	57	74	TRUE	
SNU216LR_PC5_03	Hypothetical protein DDA1	IPI00031563	11,835.50	99.80%	1	2	2	0.01%	9.80%	TDSPDMHEDT	R	-	95.00%	2.63	0.516	1	1	0	0	2	1,227.39	93	102	TRUE	
SNU216LR_PC5_03	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	2	3	3	0.02%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.28	0.557	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216LR_PC5_03	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	2	3	3	0.02%	5.28%	QSLGELIGTLNAAK	K	V	95.00%	3.43	0.368	0	1	0	0	2	1,494.76	55	68	TRUE	
SNU216LR_PC5_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	5	5	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.35	0.314	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216LR_PC5_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	5	5	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.15	0.511	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216LR_PC5_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	5	5	0.03%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.16	0.434	0	1	1	0	2	1,894.80	362	377	TRUE	
SNU216LR_PC5_03	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	99.80%	2	2	2	0.01%	9.63%	QQDPSPGSNLGGGDDLK	R	L	95.00%	4	0.397	0	1	0	0	2	1,764.74	169	185	TRUE	
SNU216LR_PC5_03	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	99.80%	2	2	2	0.01%	9.63%	RQQDPSPGSNLGGGDDLK	R	L	95.00%	3.94	0.428	0	1	0	0	2	1,920.85	168	185	TRUE	
SNU216LR_PC5_03	Isoform B of Ras-related C3 botulinum toxin subs	IPI00219675	23,468.00	100.00%	1	1	1	0.01%	7.58%	LRPLSYPQTVGETYGK	R	D	95.00%	3.83	0.376	0	1	0	0	2	1,888.92	67	82	TRUE	
SNU216LR_PC5_03	Transcription factor A, mitochondrial precursor	IPI00020928	29,097.80	100.00%	1	1	2	0.01%	6.10%	NLSDSEKELYIQHAK	K	E	94.90%	2.37	0.216	0	2	0	0	2	1,854.86	191	205	TRUE	
SNU216LR_PC5_03	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	2	2	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	3.53	0.429	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216LR_PC5_03	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	100.00%	1	2	3	0.02%	1.35%	QPTPPFGR	R	D	95.00%	1.96	0.358	1	2	0	0	2	1,126.51	204	212	TRUE	
SNU216LR_PC5_03	Centromere protein A	IPI00027152,IPI00386842	15,991.20	99.50%	2	2	2	0.01%	10.00%	RRSPSPTPTPGPSR	R	R	95.00%	2.5	0.213	0	0	1	0	2	1,652.73	15	28	TRUE	
SNU216LR_PC5_03	Centromere protein A	IPI00027152,IPI00386842	15,991.20	99.50%	2	2	2	0.01%	10.00%	SPSPTPTPGPSR	R	R	90.70%	1.77	0.275	0	1	0	0	2	1,340.53	17	28	TRUE	
SNU216LR_PC5_03	Mitochondrial import receptor subunit TOM22 ho	IPI00024976	15,390.90	100.00%	1	1	1	0.01%	17.70%	GDAEKPEEELEEDDDEELDETLSER	K	L	95.00%	5.91	0.472	0	0	1	0	2	3,001.18	22	46	TRUE	
SNU216LR_PC5_03	hematological and neurological expressed 1 isofo	IPI00007764,IPI00384857	16,014.60	100.00%	1	1	1	0.01%	9.74%	RNSSEASSGDFLDLK	R	G	95.00%	4.1	0.415	0	1	0	0	2	1,705.74	85	99	TRUE	
SNU216LR_PC5_03	hypothetical protein LOC56243	IPI00645403	214,116.70	99.60%	1	1	1	0.01%	0.52%	EPGTLVYIEK	K	P	93.20%	2.44	0.228	0	1	0	0	2	1,228.59	514	523	TRUE	
SNU216LR_PC5_03	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	3	4	0.02%	24.40%	DHANYEEDENGDITPIK	R	A	95.00%	4	0.442	0	1	1	0	2	2,039.82	134	150	TRUE	
SNU216LR_PC5_03	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	3	4	0.02%	24.40%	HKAEEVEDETVELDVSDEEMAR	K	R	95.00%	5.92	0.383	0	0	2	0	2	2,640.10	95	116	TRUE	
SNU216LR_PC5_03	Proteasome inhibitor PI31 subunit	IPI00009949,IPI00643918	20,593.40	99.80%	1	1	1	0.01%	5.90%	ANVSSPHREFPPATAR	K	E	95.00%	2.7	0.234	0	0	1	0	2	1,816.85	149	164	TRUE	
SNU216LR_PC5_03	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	4	5	0.03%	17.60%	EEDEENDNDNESDHDEADS	R	-	95.00%	3.48	0.663	0	1	0	0	2	2,287.69	113	131	TRUE	
SNU216LR_PC5_03	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	4	5	0.03%	17.60%	EEKREEDEENDNDNESDHDEADS	K	-	95.00%	1.83	0.375	0	0	1	0	2	2,829.97	109	131	TRUE	
SNU216LR_PC5_03	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	4	5	0.03%	17.60%	REEDEENDNDNESDHDEADS	K	-	95.00%	3.32	0.705	0	1	2	0	2	2,443.79	112	131	TRUE	
SNU216LR_PC5_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	35.00%	GLLSDSMTDVPVDTGVAAR	K	T	95.00%	3.83	0.524	0	1	0	0	2	1,983.91	16	34	TRUE	
SNU216LR_PC5_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	35.00%	NSATFKSFEDR	R	V	95.00%	2.49	0.213	0	1	0	0	2	1,381.58	183	193	TRUE	
SNU216LR_PC5_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	35.00%	SWHDVQVSSAYVK	R	T	95.00%	2.82	0.319	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216LR_PC5_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	35.00%	VVGDRENGSDNLPSSAGSGDKPLSDPAPF	K	-	95.00%	3.8	0.287	0	0	1	0	2	2,965.32	201	229	TRUE	
SNU216LR_PC5_03	c-Myc-responsive protein Rcl	IPI00007926	19,108.30	99.80%	1	1	1	0.01%	10.30%	YFEADPPGQVAASPDPTT	R	-	95.00%	3.43	0.541	0	1	0	0	2	1,942.81	157	174	TRUE	
SNU216LR_PC5_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.61	0.568	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC5_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	6.11	0.41	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216LR_PC5_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	7.51	0.586	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC5_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.36	0.284	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC5_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.94	0.53	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216LR_PC5_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	4	4	0.02%	10.40%	RPHTPTPGIYMGR	K	P	95.00%	2.26	0.299	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216LR_PC5_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	4	4	0.02%	10.40%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.68	0.375	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216LR_PC5_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	4	4	0.02%	10.40%	RRSPSPYYSR	R	D	95.00%	2.41	0.252	0	0	1	0	2	1,348.62	262	271	TRUE	IPI00013891
SNU216LR_PC5_03	U2 small nuclear ribonucleoprotein A'	IPI00297477	28,417.10	100.00%	1	1	1	0.01%	5.49%	SKTFNPGAGLPTDK	R	K	95.00%	2.68	0.373	0	1	0	0	2	1,512.71	178	191	TRUE	
SNU216LR_PC5_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	1	1	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.54	0.336	0	0	1	0	2	1,612.80	114	126	TRUE	
SNU216LR_PC5_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	5	0.03%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	2.75	0.529	0	2	0	0	2	2,155.73	12	28	TRUE	
SNU216LR_PC5_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	5	0.03%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	3.49	0.498	0	0	2	0	2	2,311.83	11	28	TRUE	
SNU216LR_PC5_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	5	0.03%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	3.04	0.396	0	0	1	0	2	1,887.86	250	265	TRUE	
SNU216LR_PC5_03	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSER	R	E	95.00%	2.54	0.438	0	1	0	0	2	1,418.54	194	207	TRUE	
SNU216LR_PC5_03	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	3.27	0.521	0	3	0	0	2	1,644.64	194	209	TRUE	
SNU216LR_PC5_03	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	99.50%	1	1	1	0.01%	2.46%	TNTMNGSKSPVISR	R	P	90.10%	2.3	0.194	0	1	0	0	2	1,571.72	747	760	TRUE	
SNU216LR_PC5_03	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	3	8	0.05%	41.10%	KLEKEEEEGISQESSEEEQ	K	-	95.00%	4.75	0.415	0	3	3	0	2	2,396.93	89	107	TRUE	
SNU216LR_PC5_03	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	3	8	0.05%	41.10%	KQPPVSPGTALVGSQKEPSEVPTPK	R	R	95.00%	3.85	0.543	0	0	2	0	2	2,638.35	31	55	TRUE	
SNU216LR_PC5_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	99.80%	2	2	2	0.01%	3.04%	ETQSPEQVKSEK	K	L	95.00%	2.06	0.317	0	1	0	0	2	1,469.65	493	504	TRUE	
SNU216LR_PC5_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	99.80%	2	2	2	0.01%	3.04%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.11	0.522	0	0	1	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC5_03	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	1	1	1	0.01%	6.54%	NLGSINTELQDVQR	R	I	95.00%	2.98	0.385	0	1	0	0	2	1,666.78	133	146	TRUE	
SNU216LR_PC5_03	Isoform 1 of Myelin basic protein	IPI00021907,IPI00216474	33,117.70	100.00%	1	1	1	0.01%	10.50%	TTSEDNEVFGEADANQNNGTSSQDTAVTE	R	T	95.00%	4.09	0.345	0	0	1	0	2	3,468.43	38	69	TRUE	
SNU216LR_PC5_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	EKEISDDEAEEEK	K	G	95.00%	2.69	0.328	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC5_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	IEDVGSDEEDDSGK	K	D	95.00%	2.36	0.425	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216LR_PC5_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.44	0.478	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC5_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.15%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.46	0.353	0	1	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC5_03	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSEPSRPSPQI	R	P	95.00%	7.05	0.506	0	0	1	0	2	3,119.47	117	148	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_03	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSEPSRPSPQI	R	T	95.00%	5.78	0.436	0	0	1	1	2	3,372.62	117	150	TRUE	
SNU216LR_PC5_03	Coatomer subunit beta'	IPI00220219	102,357.90	99.80%	2	3	3	0.02%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.64	0.529	0	0	1	0	2	2,727.34	846	871	TRUE	
SNU216LR_PC5_03	Coatomer subunit beta'	IPI00220219	102,357.90	99.80%	2	3	3	0.02%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	7.01	0.0783	0	0	1	1	2	3,113.52	846	874	TRUE	
SNU216LR_PC5_03	OCIA domain containing 2 isoform 1	IPI00555902	16,953.90	100.00%	1	1	1	0.01%	9.09%	HGLSEKGDSQPSAS	K	-	92.20%	2.01	0.249	0	1	0	0	2	1,479.61	141	154	TRUE	
SNU216LR_PC5_03	40S ribosomal protein S17	IPI00221093	15,419.30	100.00%	1	2	2	0.01%	16.40%	LLDFGSLSNLQVTQPTVGMNFK	K	T	95.00%	4.79	0.424	0	1	1	0	2	2,489.21	107	128	TRUE	
SNU216LR_PC5_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.80%	2	2	2	0.01%	3.28%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.02	0.239	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216LR_PC5_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.80%	2	2	2	0.01%	3.28%	KVQVAALQASPPLDQDDR	R	A	95.00%	3.68	0.462	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216LR_PC5_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	ADLNQGIGEPQSPSR	R	R	95.00%	2.8	0.217	0	1	0	0	2	1,648.73	63	77	TRUE	
SNU216LR_PC5_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSR	R	R	95.00%	2.8	0.313	0	1	0	0	2	1,804.83	62	77	TRUE	
SNU216LR_PC5_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSRR	R	V	94.70%	2.7	0.231	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216LR_PC5_03	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	5	5	5	0.03%	53.50%	KVSSAEGAAKEEPK	R	R	95.00%	3.2	0.411	0	0	1	0	2	1,510.72	4	17	TRUE	
SNU216LR_PC5_03	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	5	5	5	0.03%	53.50%	QAEVANQETKEDLPAENGETKTEESPASDE	K	E	95.00%	3.95	0.391	0	0	0	1	2	3,711.60	61	94	TRUE	
SNU216LR_PC5_03	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	5	5	5	0.03%	53.50%	TEESPASDEAGEK	K	E	95.00%	2.28	0.511	0	1	0	0	2	1,509.50	82	94	TRUE	
SNU216LR_PC5_03	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	5	5	5	0.03%	53.50%	TEESPASDEAGEKEAK	K	S	95.00%	2.31	0.34	0	1	0	0	2	1,757.71	82	97	TRUE	
SNU216LR_PC5_03	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	5	5	5	0.03%	53.50%	TEESPASDEAGEKEAKSD	K	-	95.00%	2.9	0.333	0	1	0	0	2	1,959.77	82	99	TRUE	
SNU216LR_PC5_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	3	3	0.02%	3.63%	QVLQSTQSPR	R	T	95.00%	2.5	0.233	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216LR_PC5_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	3	3	0.02%	3.63%	VKPPPSPTTEGPSLQPDLAPEEAAGTQRPK	K	N	95.00%	4.81	0.331	0	0	1	1	2	3,175.57	1004	1033	TRUE	
SNU216LR_PC5_03	Conserved hypothetical protein	IPI00746221	14,015.50	99.80%	1	1	1	0.01%	13.70%	SPPSSSEIFTPAHEENVR	R	F	95.00%	4.17	0.485	0	1	0	0	2	2,063.91	55	72	TRUE	
SNU216LR_PC5_03	Tumor suppressor candidate 2	IPI00027248	11,942.70	99.80%	1	1	1	0.01%	22.00%	RGSMFYDEDGDLAHEFYEETIVTK	R	N	95.00%	5.33	0.348	0	0	1	0	2	2,932.24	47	70	TRUE	
SNU216LR_PC5_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	4	0.02%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.45	0.319	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216LR_PC5_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	4	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.48	0.229	0	0	0	2	2	2,858.38	8	33	TRUE	
SNU216LR_PC5_03	Calmodulin	IPI00075248	16,706.80	100.00%	1	1	1	0.01%	13.50%	HVMTNLGEKLTDEEVDEMIR	R	E	95.00%	3.35	0.324	0	0	1	0	2	2,455.09	107	126	TRUE	
SNU216LR_PC5_03	Isoform 1 of PEST-containing nuclear protein	IPI00291608	18,925.40	100.00%	1	2	4	0.02%	13.50%	TLSVAAAFNEDEDSEPEEMPPEAK	K	M	95.00%	3.41	0.465	0	2	2	0	2	2,686.11	106	129	TRUE	
SNU216LR_PC5_03	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	6	6	0.03%	37.50%	GLGPSPAGDGPSGSGK	R	H	95.00%	2.3	0.462	0	1	0	0	2	1,420.61	21	36	TRUE	
SNU216LR_PC5_03	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	6	6	0.03%	37.50%	HSSYPAGTEDDEGMGEEPSPFR	R	G	95.00%	5.22	0.633	0	1	1	0	2	2,474.94	73	94	TRUE	
SNU216LR_PC5_03	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	6	6	0.03%	37.50%	RMSDEFVDSFK	R	K	91.30%	2.11	0.228	0	1	0	0	2	1,440.59	116	126	TRUE	
SNU216LR_PC5_03	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	6	6	0.03%	37.50%	RMSDEFVDSFKK	R	G	95.00%	3.02	0.264	0	1	0	0	2	1,568.68	116	127	TRUE	
SNU216LR_PC5_03	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	5	6	6	0.03%	37.50%	SRSAPPNLWAAQR	R	Y	95.00%	2.65	0.256	0	1	0	0	2	1,533.73	97	109	TRUE	
SNU216LR_PC5_03	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	2	2	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE	K	T	95.00%	7.81	0.075	0	0	1	1	2	4,013.68	6	39	TRUE	
SNU216LR_PC5_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	3.27	0.281	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216LR_PC5_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.48	0.382	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.32	0.45	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	GGVTGSPEASISGSK	K	G	95.00%	2.42	0.313	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	GHYEVTGSDDETGK	K	L	95.00%	2.81	0.52	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	87.50%	3.1	0.145	0	0	0	1	2	2,602.17	2905	2929	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	GKGGVTGSPEASISGSK	K	G	95.00%	3.83	0.136	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	3.25	0.267	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	SKGHYEVTGSDDETGK	K	L	95.00%	2.95	0.53	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	8	9	11	0.06%	2.23%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	3.82	0.274	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216LR_PC5_03	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	1	1	0.01%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	3.09	0.222	0	0	0	1	2	3,901.66	12	44	TRUE	
SNU216LR_PC5_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.80%	1	1	1	0.01%	3.14%	EEVVGGDDSDGLR	R	A	95.00%	2.52	0.372	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216LR_PC5_03	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	1	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	90.70%	2.75	0.201	0	0	1	0	2	2,581.01	131	153	TRUE	
SNU216LR_PC5_03	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	2.87	0.228	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216LR_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	3.87%	ASPSKPASAPASR	R	S	95.00%	2.29	0.29	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216LR_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	3.87%	DMESPTKLDVTLAK	K	D	95.00%	3.24	0.306	0	0	1	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	3.87%	RASPSKPASAPASR	K	S	91.80%	2.25	0.211	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	3.87%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.52	0.432	0	0	1	1	2	1,670.83	1099	1115	TRUE	
SNU216LR_PC5_03	PREDICTED: myosin VIIB	IPI00738806	241,605.40	99.80%	1	1	1	0.01%	0.71%	EGAPVTLPYQVYFMR	K	K	95.00%	2.44	0.231	0	0	1	0	2	1,850.85	1878	1892	TRUE	
SNU216LR_PC5_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.03%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.49	0.54	0	1	1	0	2	2,671.09	14	37	TRUE	
SNU216LR_PC5_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.6	0.623	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC5_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	6.33	0.6	0	1	1	0	2	2,643.08	15	38	TRUE	
SNU216LR_PC5_03	Selenoprotein S	IPI00020468	21,116.40	99.20%	2	3	3	0.02%	9.52%	KPQEEDSPGPSTSSVLK	K	R	95.00%	4.19	0.222	0	1	1	0	2	1,865.85	134	150	TRUE	
SNU216LR_PC5_03	Selenoprotein S	IPI00020468	21,116.40	99.20%	2	3	3	0.02%	9.52%	KPQEEDSPGPSTSSVLKR	K	K	84.10%	2.61	0.204	0	0	1	0	2	2,021.95	134	151	TRUE	
SNU216LR_PC5_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	5	5	0.03%	9.75%	ETPHSPGVEDAPIAK	R	V	95.00%	2.69	0.315	0	0	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC5_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	5	5	0.03%	9.75%	LRSPPEALVQGR	R	Y	95.00%	2.64	0.232	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216LR_PC5_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	5	5	0.03%	9.75%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.51	0.391	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216LR_PC5_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	5	5	0.03%	9.75%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.17	0.516	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216LR_PC5_03	Histone H4	IPI00453473	11,236.50	100.00%	1	1	1	0.01%	9.80%	ISGLIYEETR	R	G	95.00%	1.9	0.296	0	1	0	0	2	1,260.59	46	55	TRUE	
SNU216LR_PC5_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	84.10%	5.95	0.0167	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216LR_PC5_03	Protein C9orf40	IPI00017504	21,063.50	99.80%	2	2	2	0.01%	30.40%	KIDAGTMAEPSASPSK	R	R	95.00%	4.36	0.568	0	1	0	0	2	1,669.75	57	72	TRUE	
SNU216LR_PC5_03	Protein C9orf40	IPI00017504	21,063.50	99.80%	2	2	2	0.01%	30.40%	RDSGDNSAPSGQEREDHGLETGDPPLPPPF	R	L	95.00%	4.72	0.342	0	0	0	1	2	4,477.07	74	116	TRUE	
SNU216LR_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	5	5	0.03%	34.90%	KVASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	4.88	0.367	0	0	1	0	2	2,986.57	103	133	TRUE	
SNU216LR_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	5	5	0.03%	34.90%	KVYEDSGIPLPAESPK	R	K	95.00%	4.62	0.403	0	1	0	0	2	1,809.87	83	98	TRUE	
SNU216LR_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	5	5	0.03%	34.90%	LGELTMQLHPVADSSPAGAK	K	W	95.00%	4.39	0.523	0	1	0	0	2	2,102.00	22	41	TRUE	
SNU216LR_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	5	5	0.03%	34.90%	VASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	4.35	0.48	0	0	1	0	2	2,858.47	104	133	TRUE	
SNU216LR_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	5	5	0.03%	34.90%	VYEDSGIPLPAESPK	K	K	95.00%	3.26	0.412	0	0	1	0	2	1,681.77	84	98	TRUE	
SNU216LR_PC5_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	2	2	2	0.01%	3.45%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.16	0.415	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216LR_PC5_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	2	2	2	0.01%	3.45%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	3.62	0.411	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216LR_PC5_03	Density-regulated protein	IPI00306280	22,285.70	100.00%	1	2	2	0.01%	13.10%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	5.81	0.6	0	1	1	0	2	2,797.24	69	94	TRUE	
SNU216LR_PC5_03	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	2	2	2	0.01%	8.87%	KVMDSDEDDDY	R	-	95.00%	2.27	0.389	1	0	0	0	2	1,411.46	114	124	TRUE	
SNU216LR_PC5_03	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	2	2	2	0.01%	8.87%	VMDSDEDDDY	K	-	95.00%	1.87	0.305	1	0	0	0	2	1,283.37	115	124	TRUE	
SNU216LR_PC5_03	Ubiquitin-conjugating enzyme E2 E2	IPI00102173	22,255.70	99.90%	1	1	1	0.01%	8.46%	VDDSPSTSGGSSDGDQR	R	E	95.00%	3.38	0.552	0	1	0	0	2	1,746.65	8	24	TRUE	
SNU216LR_PC5_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	2	0.01%	7.59%	IGEGTYGVVYK	K	G	95.00%	2.83	0.31	0	1	0	0	2	1,265.58	10	20	TRUE	IPI00031681

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	2	0.01%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.36	0.265	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216LR_PC5_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	15	0.09%	63.50%	KEESEESDDDMGFGLFD	K	-	95.00%	3.86	0.475	0	10	0	0	2	2,029.73	99	115	TRUE	
SNU216LR_PC5_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	15	0.09%	63.50%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	3.88	0.486	0	0	1	0	2	2,854.40	62	94	TRUE	
SNU216LR_PC5_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	15	0.09%	63.50%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	3.49	0.442	0	0	0	1	2	3,354.66	62	98	TRUE	
SNU216LR_PC5_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	15	0.09%	63.50%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.63	0.435	0	2	1	0	2	1,948.94	3	21	TRUE	
SNU216LR_PC5_03	Low-density lipoprotein receptor-related protein 1	REVERSE_IPI00020557-R	504,560.10	99.40%	1	1	1	0.01%	0.35%	EDSSDMCDTDGDCRWR	K	L	95.00%	0.941	0.63	0	0	0	1	2	2,244.61	3451	3466	TRUE	
SNU216LR_PC5_03	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	95.00%	1.78	0.268	1	0	0	0	2	1,044.38	133	139	TRUE	
SNU216LR_PC5_03	Isoform 1 of ADP-ribosylation factor GTPase-activ	IPI00175169,IPI00217354	45,675.50	99.80%	1	1	1	0.01%	3.94%	RSSDSWEVWGSASTNR	R	N	95.00%	2.34	0.304	0	1	0	0	2	1,904.79	367	382	TRUE	
SNU216LR_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	4	4	0.02%	16.90%	EEDEEPESPPEKK	K	T	95.00%	1.98	0.317	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216LR_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	4	4	0.02%	16.90%	LKATVTPSPVKGK	R	G	95.00%	2.44	0.479	0	1	1	0	2	1,405.78	174	186	TRUE	
SNU216LR_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	4	4	0.02%	16.90%	NSQEDSEDSEDKDVK	K	T	95.00%	3.03	0.208	0	1	0	0	2	1,884.64	53	67	TRUE	
SNU216LR_PC5_03	DC50	IPI00009922	12,349.00	100.00%	1	1	1	0.01%	11.00%	LPQTSDDEKKDF	K	-	84.00%	2.43	0.183	0	1	0	0	2	1,502.64	98	109	TRUE	
SNU216LR_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	3	3	3	0.02%	2.27%	KLGAGEGGEASVSPEK	K	T	92.60%	2.38	0.2	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216LR_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	3	3	3	0.02%	2.27%	LGAGEGGEASVSPEK	K	T	95.00%	2.36	0.322	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216LR_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	3	3	3	0.02%	2.27%	TSQVGAASAPAKESPR	K	K	95.00%	2.19	0.257	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216LR_PC5_03	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	2	2	2	0.01%	8.16%	GNVVPSPLPTR	R	R	95.00%	1.62	0.309	1	0	0	0	2	1,216.61	36	46	TRUE	
SNU216LR_PC5_03	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	2	2	2	0.01%	8.16%	GNVVPSPLPTRR	R	T	95.00%	2.19	0.393	0	1	0	0	2	1,372.71	36	47	TRUE	
SNU216LR_PC5_03	FLJ20625 protein	IPI00016670	17,725.30	100.00%	4	4	5	0.03%	44.10%	KLLLDPSSPPTK	R	A	95.00%	3.39	0.294	0	2	0	0	2	1,375.72	20	31	TRUE	
SNU216LR_PC5_03	FLJ20625 protein	IPI00016670	17,725.30	100.00%	4	4	5	0.03%	44.10%	KLPPLPSLTSQPHQVLASEPIPFSDLQQVSR	K	I	95.00%	3.27	0.335	0	0	0	1	2	3,489.81	104	134	TRUE	
SNU216LR_PC5_03	FLJ20625 protein	IPI00016670	17,725.30	100.00%	4	4	5	0.03%	44.10%	LAVLSSSLTHWK	R	K	95.00%	2.43	0.31	0	1	0	0	2	1,421.72	92	103	TRUE	
SNU216LR_PC5_03	FLJ20625 protein	IPI00016670	17,725.30	100.00%	4	4	5	0.03%	44.10%	MGCCYSSENEDSDQDR	-	E	95.00%	0.582	1	0	0	1	0	2	2,208.56	1	16	TRUE	
SNU216LR_PC5_03	Cyclin-C	IPI00031076,IPI00554688	35,559.70	99.80%	1	1	1	0.01%	6.93%	VEEFGVVSNTRLIAAATSVLK	K	T	95.00%	3.14	0.31	0	1	0	0	2	2,284.19	117	137	TRUE	
SNU216LR_PC5_03	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	4	4	0.02%	12.00%	KLEDVKNSPTFK	K	S	95.00%	3.34	0.372	0	1	1	0	2	1,485.74	124	135	TRUE	
SNU216LR_PC5_03	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	4	4	0.02%	12.00%	NSPTFKSFEEKVENLK	K	S	95.00%	3.04	0.246	0	1	1	0	2	1,976.94	130	145	TRUE	
SNU216LR_PC5_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	99.60%	2	2	3	0.02%	2.92%	EIQNGNLHESDSESVPR	K	D	91.60%	2.85	0.177	0	2	0	0	2	1,990.85	66	82	TRUE	
SNU216LR_PC5_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	99.60%	2	2	3	0.02%	2.92%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.24	0.462	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216LR_PC5_03	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	100.00%	1	1	6	0.03%	5.67%	ESLKEEDESDDDNM	K	-	95.00%	3.56	0.621	0	6	0	0	2	1,751.58	242	255	TRUE	
SNU216LR_PC5_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	4	5	0.03%	13.00%	HGESAWNLENR	R	F	95.00%	2.11	0.311	0	1	0	0	2	1,392.57	10	20	TRUE	
SNU216LR_PC5_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	4	5	0.03%	13.00%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	5.28	0.347	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216LR_PC5_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	4	5	0.03%	13.00%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	3.81	0.414	0	1	2	0	2	2,497.08	117	137	TRUE	
SNU216LR_PC5_03	Phosphatidylethanolamine-binding protein 1	IPI00219446	20,925.70	100.00%	1	1	1	0.01%	8.06%	NRPTSISWDGLDSGK	K	L	95.00%	3.53	0.406	0	1	0	0	2	1,712.76	47	61	TRUE	
SNU216LR_PC5_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	1	1	1	0.01%	2.45%	SGAQASSTPLSPTR	R	I	95.00%	2.78	0.183	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216LR_PC5_03	Ras-related protein R-Ras	IPI00020418	23,480.50	100.00%	1	2	7	0.04%	7.34%	KYQEQELPPSPPSAPR	R	K	95.00%	3.08	0.317	0	4	3	0	2	1,903.90	192	207	TRUE	
SNU216LR_PC5_03	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	100.00%	2	2	2	0.01%	10.00%	DIIRQPSEEEIIK	K	L	95.00%	3.04	0.203	0	1	0	0	2	1,649.81	131	143	TRUE	
SNU216LR_PC5_03	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	100.00%	2	2	2	0.01%	10.00%	QPSEEEIIK	R	L	95.00%	2.51	0.186	1	0	0	0	2	1,152.52	135	143	TRUE	
SNU216LR_PC5_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	2	4	9	0.05%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.01	0.524	0	1	4	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC5_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	2	4	9	0.05%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.77	0.612	0	3	1	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC5_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	99.80%	1	1	1	0.01%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.34	0.526	0	0	1	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216LR_PC5_03	Isoform 2 of Heme-binding protein 2	IPI00003799,IPI00644697	22,875.70	99.80%	1	1	1	0.01%	6.52%	VYYTAGYNSPVK	K	L	95.00%	2.86	0.373	0	1	0	0	2	1,441.64	173	184	TRUE	
SNU216LR_PC5_03	40S ribosomal protein S10	IPI00008438	18,898.30	100.00%	1	1	1	0.01%	9.09%	KAEAGAGSATEFQFR	K	G	95.00%	3.32	0.373	0	1	0	0	2	1,649.73	139	153	TRUE	
SNU216LR_PC5_03	DNA polymerase epsilon subunit 3	IPI00010141	16,859.90	100.00%	1	1	1	0.01%	13.60%	TDSEEQDKSRDEDNDEDEER	K	L	95.00%	3.21	0.358	0	0	1	0	2	2,520.91	114	133	TRUE	
SNU216LR_PC5_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	3	0.02%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.62	0.327	0	0	2	0	2	2,281.08	217	235	TRUE	
SNU216LR_PC5_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	3	0.02%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	3.5	0.293	0	0	1	0	2	2,836.13	300	324	TRUE	
SNU216LR_PC5_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	3	3	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.97	0.462	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC5_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	3	3	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.08	0.156	0	1	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC5_03	Hypothetical protein FLJ14668	IPI00303722	15,640.90	99.80%	1	1	1	0.01%	10.10%	CSASCCEDSQASMK	R	Q	95.00%	0.762	0.895	0	0	0	1	2	1,876.47	35	48	TRUE	
SNU216LR_PC5_03	Isoform 1 of Inhibitor of growth protein 5	IPI00103709,IPI00513864,IP	16,272.20	99.30%	2	2	2	0.01%	5.81%	DKMEGSDFESSGGR	K	G	85.10%	2.16	0.199	0	1	0	0	2	1,581.59	109	122	TRUE	
SNU216LR_PC5_03	Isoform 1 of Inhibitor of growth protein 5	IPI00103709,IPI00513864,IP	16,272.20	99.30%	2	2	2	0.01%	5.81%	MEGSDFESSGGR	K	G	95.00%	2.19	0.248	0	1	0	0	2	1,338.47	111	122	TRUE	
SNU216LR_PC5_03	Actin related protein 2/3 complex, subunit 5-like	IPI00414554	16,941.30	100.00%	1	1	1	0.01%	9.15%	AFHAALRNSPVNTK	R	N	95.00%	3.13	0.377	0	1	0	0	2	1,605.79	56	69	TRUE	
SNU216LR_PC5_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	1	1	0.01%	4.10%	GSYGDLGGPIITTQVTIPK	R	D	80.50%	2.46	0.148	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216LR_PC5_03	Centrin-2	IPI00215928	19,739.60	99.80%	1	2	2	0.01%	9.30%	MSPKPELTEEQKQEIR	R	E	95.00%	3.26	0.289	0	1	1	0	2	2,022.96	19	34	TRUE	
SNU216LR_PC5_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	1	1	1	0.01%	2.23%	QSVDKVTSPTKV	K	-	95.00%	2.67	0.209	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216LR_PC5_03	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	1	1	1	0.01%	0.06%	SSISLGWKPPAKDGGSPIK	K	G	95.00%	3.4	0.14	0	1	0	0	2	2,084.98	16554	16572	TRUE	
SNU216LR_PC5_03	RAB31, member RAS oncogene family variant	IPI00014376	21,700.30	100.00%	1	1	1	0.01%	10.80%	FVQDHFDHNISPTIGASFMTK	R	T	95.00%	3.39	0.204	0	0	1	0	2	2,472.11	26	46	TRUE	
SNU216LR_PC5_03	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.80%	1	1	2	0.01%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	3.49	0.505	0	2	0	0	2	1,622.75	176	190	TRUE	
SNU216LR_PC5_03	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	2	2	0.01%	2.39%	EQLQPHENGEGNSET	R	-	95.00%	3.8	0.474	0	1	0	0	2	1,748.68	1034	1048	TRUE	
SNU216LR_PC5_03	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	2	2	0.01%	2.39%	VRPPQEEQEREQLQPHENGEGNSET	R	-	95.00%	3.17	0.166	0	0	1	0	2	2,997.30	1024	1048	TRUE	
SNU216LR_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	6	6	0.03%	8.37%	SQRYSGAYGASVSDEELK	K	R	95.00%	3.14	0.273	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216LR_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	6	6	0.03%	8.37%	SQRYSGAYGASVSDEELKR	K	R	92.30%	5.39	0.0335	0	0	1	0	2	2,182.98	46	64	TRUE	
SNU216LR_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	6	6	0.03%	8.37%	YSGAYGASVSDEELK	R	R	95.00%	3.11	0.425	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216LR_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	6	6	0.03%	8.37%	YSGAYGASVSDEELKR	R	R	95.00%	2.9	0.29	0	1	1	0	2	1,811.78	49	64	TRUE	
SNU216LR_PC5_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	16	0.09%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.49	0.621	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216LR_PC5_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	16	0.09%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	6.04	0.232	0	0	3	1	2	4,104.59	78	115	TRUE	
SNU216LR_PC5_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	16	0.09%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	6.08	0.212	0	0	3	7	2	4,260.69	78	116	TRUE	
SNU216LR_PC5_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	5	5	0.03%	7.30%	GSDPASGEVEASQLR	R	R	95.00%	2.27	0.271	0	1	0	0	2	1,582.67	106	120	TRUE	
SNU216LR_PC5_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	5	5	0.03%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	4.07	0.49	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216LR_PC5_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	5	5	0.03%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	3.68	0.431	0	1	1	0	2	1,894.88	104	120	TRUE	
SNU216LR_PC5_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.00%	2	3	3	0.02%	2.15%	SHSPSASQSGSQLR	R	N	95.00%	2.42	0.412	0	1	1	0	2	1,508.65	1257	1270	TRUE	
SNU216LR_PC5_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	99.00%	2	3	3	0.02%	2.15%	TSTTGVATTQSPTPR	K	S	80.40%	2.18	0.189	0	1	0	0	2	1,584.73	1242	1256	TRUE	
SNU216LR_PC5_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	3	3	0.02%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.12	0.285	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216LR_PC5_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	3	3	0.02%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE	K	G	95.00%	5.24	0.42	0	0	0	1	2	3,462.56	246	276	TRUE	
SNU216LR_PC5_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	3	3	0.02%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	2.81	0.419	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216LR_PC5_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	1	1	1	0.01%	6.19%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.3	0.37	0	1	0	0	2	1,977.77	304	323	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_03	septin 9	IPI00748715	63,634.10	99.80%	1	1	1	0.01%	2.82%	SFEVEEVETPNSTPPR	R	R	95.00%	3.72	0.521	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216LR_PC5_03	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	4	4	0.02%	9.05%	GSPHYFSPFRPY	R	-	95.00%	2.48	0.225	1	1	1	0	2	1,534.65	210	221	TRUE	
SNU216LR_PC5_03	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	4	4	0.02%	9.05%	STSYGYSR	R	S	95.00%	1.83	0.339	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216LR_PC5_03	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	2	0.01%	15.30%	RIDFTPVSPAPSPTR	K	G	95.00%	2.98	0.19	0	1	0	0	2	1,800.81	108	122	TRUE	
SNU216LR_PC5_03	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	2	0.01%	15.30%	SSSAPLIHGLSDLSQVFQPYTLR	R	T	95.00%	3.65	0.329	0	0	1	0	2	2,596.28	23	45	TRUE	
SNU216LR_PC5_03	GTP-binding protein SAR1a	IPI00015954	22,367.80	100.00%	1	1	1	0.01%	5.56%	IDRTDAISEEK	K	L	95.00%	2.27	0.241	0	1	0	0	2	1,356.60	136	146	TRUE	
SNU216LR_PC5_03	Isoform 1 of Sorting nexin-12	IPI00438170,IPI00438171,IP	19,819.10	100.00%	1	1	1	0.01%	8.14%	RYSDFEWLKNELER	R	D	92.20%	3.28	0.129	0	0	1	0	2	1,964.89	71	84	TRUE	
SNU216LR_PC5_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	0.75%	NRSAEEGELAESK	R	S	95.00%	3.35	0.381	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216LR_PC5_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	0.75%	SAEEGELAESK	R	S	86.20%	1.8	0.278	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216LR_PC5_03	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	5	5	0.03%	18.90%	IISTTASKTETPIVSK	K	S	95.00%	2.72	0.294	0	1	0	0	2	1,755.91	140	155	TRUE	
SNU216LR_PC5_03	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	5	5	0.03%	18.90%	KTVQSNSPISALAPTGK	K	E	83.80%	3.95	0.028	0	1	0	0	2	1,778.91	200	216	TRUE	
SNU216LR_PC5_03	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	5	5	0.03%	18.90%	SLSSSLDDTEVKK	K	V	95.00%	2.77	0.364	0	1	1	0	2	1,488.68	156	168	TRUE	
SNU216LR_PC5_03	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	5	5	0.03%	18.90%	TVQSNSPISALAPTGK	K	E	95.00%	3.02	0.329	0	1	0	0	2	1,650.81	201	216	TRUE	
SNU216LR_PC5_03	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	2	2	2	0.01%	15.80%	DSSTSPGDYVLSVSENSR	R	V	95.00%	3.09	0.279	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216LR_PC5_03	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	2	2	2	0.01%	15.80%	VSHYIINSSGPRPPVPPSPAQPPPGVSPSR	R	L	95.00%	4.84	0.538	0	0	1	0	2	3,154.58	57	86	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	13	16	0.09%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	3.63	0.404	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	13	16	0.09%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	3.7	0.469	0	2	2	0	2	2,375.94	172	191	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	13	16	0.09%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	4.09	0.486	0	1	1	1	2	2,504.04	172	192	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	13	16	0.09%	24.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	4.77	0.62	0	2	1	0	2	2,115.85	47	66	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	13	16	0.09%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	5.2	0.522	0	0	1	0	2	2,484.10	44	66	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	13	16	0.09%	24.20%	LLKEGEEPTVYSDEEEPK	K	D	95.00%	3.56	0.396	0	1	0	0	2	2,171.96	169	186	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	13	16	0.09%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.36	0.48	0	1	1	1	2	2,730.20	169	191	TRUE	
SNU216LR_PC5_03	NME2 protein	IPI00604590	32,642.20	100.00%	1	1	1	0.01%	5.82%	VMLGETNPADSKPGTIR	R	G	95.00%	2.24	0.347	0	1	0	0	2	1,865.88	114	130	TRUE	
SNU216LR_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	7	11	15	0.09%	20.30%	ASGQAFELILSPR	R	S	95.00%	2.74	0.348	0	2	1	0	2	1,468.72	14	26	TRUE	
SNU216LR_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	7	11	15	0.09%	20.30%	ESVPEFPLSPPK	K	K	95.00%	2.01	0.375	0	1	0	0	2	1,406.66	29	40	TRUE	
SNU216LR_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	7	11	15	0.09%	20.30%	ESVPEFPLSPPKK	K	K	95.00%	2.96	0.38	0	1	1	0	2	1,534.76	29	41	TRUE	
SNU216LR_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	7	11	15	0.09%	20.30%	ESVPEFPLSPPKKK	K	D	95.00%	2.66	0.328	0	1	0	0	2	1,662.85	29	42	TRUE	
SNU216LR_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	7	11	15	0.09%	20.30%	RASGQAFELILSPR	K	S	95.00%	3.07	0.455	0	1	3	0	2	1,624.82	13	26	TRUE	
SNU216LR_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	7	11	15	0.09%	20.30%	SKESVPEFPLSPPK	R	K	95.00%	3.41	0.506	0	2	1	0	2	1,621.79	27	40	TRUE	
SNU216LR_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	7	11	15	0.09%	20.30%	SKESVPEFPLSPPKK	R	K	95.00%	2.39	0.251	0	0	1	0	2	1,749.88	27	41	TRUE	
SNU216LR_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	5	13	0.08%	38.70%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	R	F	95.00%	4.13	0.349	0	0	1	0	2	3,671.51	94	122	TRUE	
SNU216LR_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	5	13	0.08%	38.70%	DWEDDSDEDMSNFDR	K	F	95.00%	3.54	0.637	0	9	1	0	2	1,971.62	108	122	TRUE	
SNU216LR_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	5	13	0.08%	38.70%	FSEMMNNMGGDEDVDLPEVDGADDDSQ	R	M	95.00%	4.56	0.531	0	0	1	0	2	3,701.33	123	155	TRUE	
SNU216LR_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	5	13	0.08%	38.70%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	3.19	0.27	0	0	1	0	2	3,472.37	96	122	TRUE	
SNU216LR_PC5_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.5	0.358	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216LR_PC5_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	HGSDPAFAPGPR	R	G	95.00%	2.1	0.294	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216LR_PC5_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	KEEASSPGAGEGPAEEGTR	K	D	95.00%	2.58	0.315	0	1	0	0	2	1,938.81	1142	1160	TRUE	
SNU216LR_PC5_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	6.96%	RLSLGQGDSTEAATEER	R	G	95.00%	4.2	0.483	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC5_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	1	1	0.01%	3.23%	SESPKEPEQLRK	K	L	95.00%	2.61	0.261	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216LR_PC5_03	Calnexin precursor	IPI00020984	67,570.20	99.80%	1	2	2	0.01%	3.21%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.56	0.345	0	1	1	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC5_03	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	1	2	3	0.02%	5.82%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	4.41	0.331	0	0	1	2	2	2,333.13	446	466	TRUE	
SNU216LR_PC5_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	4.60%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	5.11	0.0725	0	1	0	0	2	2,428.13	618	639	TRUE	
SNU216LR_PC5_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	4.60%	NDSWGSFDLR	R	A	95.00%	2.25	0.436	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216LR_PC5_03	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	1	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.29	0.557	0	1	0	0	2	2,323.85	116	134	TRUE	
SNU216LR_PC5_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	3	0.02%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	2.45	0.338	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC5_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	3	0.02%	16.10%	KPATPAEDDEDDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	6.73	0.574	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC5_03	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	3	3	0.02%	9.05%	KSPSGPVKSPPLSPVGTTPVK	K	L	95.00%	3.96	0.212	0	0	1	0	2	2,140.14	181	201	TRUE	
SNU216LR_PC5_03	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	3	3	0.02%	9.05%	SPSGPVKSPPLSPVGTTPVK	K	L	95.00%	4.06	0.379	0	1	1	0	2	2,012.05	182	201	TRUE	
SNU216LR_PC5_03	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	5	5	0.03%	39.00%	AQLGGPEAAKSDETAAK	R	-	95.00%	2.92	0.384	0	1	1	0	2	1,723.79	189	205	TRUE	
SNU216LR_PC5_03	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	5	5	0.03%	39.00%	GPSWDPFRDWYPHSR	R	L	95.00%	2.67	0.396	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC5_03	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	5	5	0.03%	39.00%	LPEEWSQWLGGSSWPGYVRPLPPAAIESPA	R	A	95.00%	4.86	0.155	0	0	1	0	2	4,173.03	38	75	TRUE	
SNU216LR_PC5_03	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	4	5	5	0.03%	39.00%	QLSSGVSEIR	R	H	91.20%	1.99	0.283	1	0	0	0	2	1,155.54	80	89	TRUE	
SNU216LR_PC5_03	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.61	0.381	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216LR_PC5_03	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	3	3	0.02%	11.80%	EPVADEEEEDSDDDVEPITEFR	K	F	95.00%	3.63	0.388	0	1	0	0	2	2,645.03	92	113	TRUE	
SNU216LR_PC5_03	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	3	3	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.72	0.612	0	0	1	1	2	3,394.35	86	113	TRUE	
SNU216LR_PC5_03	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	KSPRPAGPQLFLPDPDPQR	R	G	95.00%	4.08	0.377	0	0	1	0	2	2,196.10	151	169	TRUE	
SNU216LR_PC5_03	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	LAAAEETAVSPR	R	K	95.00%	2.59	0.389	0	1	0	0	2	1,294.60	139	150	TRUE	
SNU216LR_PC5_03	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	LAAAEETAVSPRKSPR	R	P	95.00%	2.34	0.34	0	1	0	0	2	1,842.85	139	154	TRUE	
SNU216LR_PC5_03	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	RLAAAEETAVSPR	R	K	95.00%	2.7	0.403	0	0	1	0	2	1,450.71	138	150	TRUE	
SNU216LR_PC5_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	99.10%	1	1	1	0.01%	0.71%	VSLEPHQGPGTPESK	R	K	81.10%	2.38	0.203	0	1	0	0	2	1,642.75	1990	2004	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	6	0.03%	18.80%	GLGAGAGAGEESPATSLPR	R	M	95.00%	4.09	0.478	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	6	0.03%	18.80%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.99	0.503	0	1	0	0	2	2,159.93	200	217	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	6	0.03%	18.80%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	4.01	0.281	0	0	2	0	2	2,654.15	200	221	TRUE	
SNU216LR_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	6	0.03%	18.80%	RGLGAGAGAGEESPATSLPR	R	M	95.00%	4.13	0.489	0	1	1	0	2	1,933.91	78	97	TRUE	
SNU216LR_PC5_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.55	0.252	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216LR_PC5_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	4.66	0.43	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216LR_PC5_03	13 kDa protein	IPI00644209	12,994.10	99.80%	1	1	1	0.01%	16.30%	RPASPSHNGSSGGGYGASKK	K	K	95.00%	2.5	0.295	0	0	0	1	2	1,981.89	23	42	TRUE	
SNU216LR_PC5_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	99.80%	2	3	3	0.02%	11.20%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.19	0.479	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216LR_PC5_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	99.80%	2	3	3	0.02%	11.20%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.71	0.373	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC5_03	Isoform 1 of RNA-binding protein 8A	IPI00001757	19,889.40	100.00%	1	2	3	0.02%	10.90%	MREDYDSVEQDGDEPGPQR	R	S	95.00%	3.62	0.493	0	1	2	0	2	2,302.89	50	68	TRUE	
SNU216LR_PC5_03	FK506-binding protein 3	IPI00024157	25,177.40	100.00%	1	1	1	0.01%	6.25%	ETKSEETLDEGPPK	K	Y	95.00%	2.17	0.256	0	1	0	0	2	1,639.71	97	110	TRUE	
SNU216LR_PC5_03	thymopoietin isoform beta	IPI00030131	50,671.40	99.50%	2	3	3	0.02%	14.10%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.34	0.526	0	0	1	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216LR_PC5_03	thymopoietin isoform beta	IPI00030131	50,671.40	99.50%	2	3	3	0.02%	14.10%	HASPILPITEFSDIPR	K	R	95.00%	3.55	0.422	0	1	1	0	2	1,872.93	304	319	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC5_03	thymopoietin isoform beta	IPI00030131	50,671.40	99.50%	2	3	3	0.02%	14.10%	QNGSNDSDRYSDNEEDSKIELK	R	L	89.90%	3.72	0.156	0	0	1	0	2	2,623.08	174	195	TRUE	
SNU216LR_PC5_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	98.90%	1	1	1	0.01%	2.02%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	4.54	0.248	0	1	0	0	2	2,653.07	108	131	TRUE	
SNU216LR_PC5_03	KIAA1143	IPI00410618	17,483.50	100.00%	2	2	2	0.01%	18.20%	IQPQPPDEDGDHSDKEDEQPQVVVLKK	R	G	95.00%	3.26	0.211	0	0	0	1	2	3,150.46	38	64	TRUE	
SNU216LR_PC5_03	KIAA1143	IPI00410618	17,483.50	100.00%	2	2	2	0.01%	18.20%	RIQPQPPDEDGDHSDKEDEQPQVVVLK	K	K	95.00%	4.2	0.45	0	0	0	1	2	3,178.47	37	63	TRUE	
SNU216LR_PC5_03	Isoform C1 of Heterogeneous nuclear ribonucleo	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.64	0.4	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216LR_PC5_03	Isoform C1 of Heterogeneous nuclear ribonucleo	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	8.24	0.523	0	0	1	0	2	4,277.68	238	275	TRUE	
SNU216LR_PC5_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	1	1	1	0.01%	2.01%	AGGLDWPEATEVSPSR	R	T	95.00%	3.53	0.299	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216LR_PC5_03	Hypothetical protein FLJ22484	IPI00024816	32,974.00	99.80%	2	2	2	0.01%	8.25%	GGSAAATSNPHHDNVR	R	Y	95.00%	2.47	0.293	0	0	1	0	2	1,670.70	205	220	TRUE	
SNU216LR_PC5_03	Hypothetical protein FLJ22484	IPI00024816	32,974.00	99.80%	2	2	2	0.01%	8.25%	SMSENAVR	R	Q	95.00%	1.88	0.248	0	1	0	0	2	973.3808	129	136	TRUE	
SNU216LR_PC5_03	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	3	0.02%	18.00%	ELDEEGSDPPLPGR	R	A	95.00%	2.89	0.388	0	1	0	0	2	1,590.67	169	182	TRUE	
SNU216LR_PC5_03	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	3	0.02%	18.00%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.5	0.435	0	1	1	0	2	2,372.11	44	64	TRUE	
SNU216LR_PC5_03	OTTHUMP00000030182	IPI00023023,IPI00514329,IP	19,911.70	99.80%	2	2	2	0.01%	20.30%	LSSTDDGYIDLQFK	R	K	95.00%	2.44	0.412	0	1	0	0	2	1,681.74	85	98	TRUE	
SNU216LR_PC5_03	OTTHUMP00000030182	IPI00023023,IPI00514329,IP	19,911.70	99.80%	2	2	2	0.01%	20.30%	LSSTDDGYIDLQFKK	R	T	95.00%	2.53	0.269	0	1	0	0	2	1,809.83	85	99	TRUE	
SNU216LR_PC5_03	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	95.00%	5.59	0.0573	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216LR_PC5_03	60S ribosomal protein L31	IPI00026302	14,463.20	100.00%	1	1	1	0.01%	18.40%	NEDEDSPNKLYTLVTYVPVTTFK	R	N	95.00%	4.18	0.316	0	0	1	0	2	2,753.30	93	115	TRUE	
SNU216LR_PC6_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	1	1	1	0.01%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	2.39	0.338	0	0	1	0	2	1,917.95	294	311	TRUE	
SNU216LR_PC6_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.04%	8.43%	SGDETPGSEVPGDK	R	A	95.00%	2.07	0.331	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216LR_PC6_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.04%	8.43%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	2.79	0.539	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216LR_PC6_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	4	4	0.04%	8.43%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	3.88	0.453	0	0	1	1	2	4,198.92	226	261	TRUE	
SNU216LR_PC6_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	99.80%	1	1	1	0.01%	2.90%	TQTPPVSPAPQPTEER	K	L	95.00%	2.15	0.338	0	1	0	0	2	1,894.80	362	377	TRUE	
SNU216LR_PC6_03	Zinc finger protein 185	IPI00005688	49,186.50	99.80%	2	2	2	0.02%	7.22%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	2.89	0.506	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216LR_PC6_03	Zinc finger protein 185	IPI00005688	49,186.50	99.80%	2	2	2	0.02%	7.22%	QSSPSGSEQLVR	R	R	95.00%	1.95	0.379	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216LR_PC6_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	99.90%	2	2	2	0.02%	2.34%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	2.2	0.412	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216LR_PC6_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	99.90%	2	2	2	0.02%	2.34%	TVANLLSGKSPR	K	K	95.00%	1.91	0.368	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216LR_PC6_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	2.15	0.39	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216LR_PC6_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	2	2	2	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.22	0.312	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216LR_PC6_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	1	1	1	0.01%	2.22%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	2.36	0.408	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216LR_PC6_03	Heat-shock protein beta-1	IPI00025512	22,782.60	99.70%	1	1	1	0.01%	7.32%	GPSWDPFRDWYPHSR	R	L	94.90%	1.69	0.271	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216LR_PC6_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	99.80%	2	2	2	0.02%	16.90%	DWEDDSDEDMSNFDR	K	F	95.00%	1.46	0.321	0	1	0	0	2	1,955.63	108	122	TRUE	
SNU216LR_PC6_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	99.80%	2	2	2	0.02%	16.90%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	1.79	0.303	0	0	1	0	2	3,472.37	96	122	TRUE	
SNU216LR_PC6_03	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	95.00%	3.05	0.167	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216LR_PC6_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	99.80%	1	1	1	0.01%	2.05%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	2.11	0.253	0	0	1	0	2	2,992.36	1263	1291	TRUE	
SNU216LR_PC6_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.30%	2	3	3	0.03%	16.10%	ATAPQTQHVSPMR	R	Q	85.50%	1.69	0.195	0	0	1	0	2	1,503.68	123	135	TRUE	
SNU216LR_PC6_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.30%	2	3	3	0.03%	16.10%	KPATPAEDDEDDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	4.39	0.514	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216LR_PC6_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	5	5	5	0.05%	7.50%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.17	0.622	0	0	1	0	2	2,001.69	394	409	TRUE	
SNU216LR_PC6_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	5	5	5	0.05%	7.50%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	2.62	0.276	0	0	1	0	2	2,726.13	369	391	TRUE	
SNU216LR_PC6_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	5	5	5	0.05%	7.50%	KAEGEPQEESPLK	K	S	95.00%	3.42	0.415	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216LR_PC6_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	5	5	5	0.05%	7.50%	KAEGEPQEESPLKSK	K	S	95.00%	2.4	0.211	0	0	1	0	2	1,736.81	168	182	TRUE	
SNU216LR_PC6_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	5	5	5	0.05%	7.50%	YSPSQNSPIHHIPSR	R	R	95.00%	2.63	0.24	0	0	1	0	2	1,879.79	284	298	TRUE	
SNU216LR_PC6_03	Stathmin	IPI00479997	17,171.80	100.00%	2	2	2	0.02%	18.90%	RASGQAFELILSPR	K	S	95.00%	2.33	0.2	0	0	1	0	2	1,624.82	13	26	TRUE	
SNU216LR_PC6_03	Stathmin	IPI00479997	17,171.80	100.00%	2	2	2	0.02%	18.90%	SKESVPEFPLSPPK	R	K	95.00%	2.21	0.351	0	1	0	0	2	1,621.79	27	40	TRUE	
SNU216LR_PC6_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.02%	3.23%	SESPKEPEQLR	K	K	87.90%	1.76	0.195	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216LR_PC6_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.02%	3.23%	SESPKEPEQLRK	K	L	95.00%	2.36	0.3	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216LR_PC6_03	Small acidic protein	IPI00003419	20,332.70	99.80%	1	2	2	0.02%	12.60%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	3.75	0.425	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216LR_PC6_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	3	3	0.03%	10.30%	AEDGATPSPSNETPK	K	K	95.00%	2.13	0.421	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216LR_PC6_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	3	3	0.03%	10.30%	AEDGATPSPSNETPKK	K	K	84.20%	1.45	0.277	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216LR_PC6_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	3	3	0.03%	10.30%	GEPAAAAAPEAGASPVEK	K	E	95.00%	2.73	0.473	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216LR_PC6_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	2	2	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	2.27	0.262	0	0	1	0	2	1,738.78	105	120	TRUE	
SNU216LR_PC6_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	2	2	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	2.98	0.27	0	0	1	0	2	1,894.88	104	120	TRUE	
SNU216LR_PC6_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	1	1	1	0.01%	3.21%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	1.97	0.357	0	0	1	0	2	2,188.85	552	570	TRUE	
SNU216LR_PC6_03	Septin-2	IPI00014177	41,488.20	99.80%	1	1	1	0.01%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	3.26	0.443	0	0	1	0	2	2,517.05	210	229	TRUE	
SNU216LR_PC6_03	BET1-like protein	IPI00009772,IPI00396263	11,137.60	99.60%	1	1	1	0.01%	11.70%	AQSPGAVEEILDR	R	E	95.00%	2.45	0.464	0	1	0	0	2	1,464.67	7	19	TRUE	
SNU216LR_PC6_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	3	3	0.03%	8.23%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	2.19	0.507	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216LR_PC6_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	3	3	0.03%	8.23%	VVDYSQFQESDDADEDYGR	K	D	95.00%	1.71	0.4	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216LR_PC6_03	Ephrin type-A receptor 1 precursor	IPI00294250	108,068.00	99.80%	2	3	3	0.03%	3.48%	AKEVTLMDTSKAQGELGWLLDPPK	R	D	95.00%	3.16	0.349	0	1	1	0	2	2,707.34	25	48	TRUE	
SNU216LR_PC6_03	Ephrin type-A receptor 1 precursor	IPI00294250	108,068.00	99.80%	2	3	3	0.03%	3.48%	QLELTWAGSR	R	P	95.00%	1.83	0.299	0	1	0	0	2	1,240.57	462	471	TRUE	
SNU216LR_PC6_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	6.45	0.437	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216LR_PC6_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	2.02	0.465	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216LR_PC6_03	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.02%	15.50%	DLLHPSPEEEK	K	R	93.50%	1.86	0.198	0	1	0	0	2	1,373.60	13	23	TRUE	
SNU216LR_PC6_03	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.02%	15.50%	DLLHPSPEEEKRK	K	H	95.00%	2.79	0.237	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216LR_PC6_03	Isoform 1 of Pinin	IPI00418458	81,613.20	99.80%	2	2	2	0.02%	2.93%	SLSPGKENVSALDMEK	K	E	95.00%	2.44	0.378	0	1	0	0	2	1,784.81	441	456	TRUE	
SNU216LR_PC6_03	Isoform 1 of Pinin	IPI00418458	81,613.20	99.80%	2	2	2	0.02%	2.93%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	1.78	0.306	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216LR_PC6_03	Guanine nucleotide-binding protein G(I)/G(S)/G(O	IPI00221232	7,875.40	100.00%	1	1	1	0.01%	15.50%	TASTNNIAQAR	K	R	95.00%	2.28	0.384	0	1	0	0	2	1,226.55	4	14	TRUE	
SNU216LR_PC6_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	3	0.03%	60.00%	KEESEESDDDMGFGLFD	K	-	95.00%	3.45	0.433	0	1	0	0	2	2,029.73	99	115	TRUE	
SNU216LR_PC6_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	3	0.03%	60.00%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	82.20%	1.53	0.266	0	0	1	0	2	2,854.40	62	94	TRUE	
SNU216LR_PC6_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	3	0.03%	60.00%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.7	0.417	0	0	1	0	2	1,948.94	3	21	TRUE	
SNU216LR_PC6_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	236,530.90	100.00%	1	1	1	0.01%	0.90%	TQPDGTSVPGEPASPISQR	R	L	95.00%	1.59	0.362	0	1	0	0	2	2,003.91	1730	1748	TRUE	
SNU216LR_PC6_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	3	3	0.03%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	1.87	0.231	0	0	1	0	2	2,020.82	45	61	TRUE	
SNU216LR_PC6_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	99.80%	2	3	3	0.03%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	3.19	0.382	0	0	1	1	2	2,176.93	44	61	TRUE	
SNU216LR_PC6_03	Thioredoxin domain-containing protein 1 precurso	IPI00395887	31,791.90	99.80%	2	3	3	0.03%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	2.27	0.474	0	0	1	0	2	2,517.99	234	254	TRUE	
SNU216LR_PC6_03	Thioredoxin domain-containing protein 1 precurso	IPI00395887	31,791.90	99.80%	2	3	3	0.03%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	3.1	0.606	0	1	1	0	2	2,389.89	235	254	TRUE	
SNU216LR_PC6_03	Isoform C1 of Heterogeneous nuclear ribonucleo	IPI00216592	32,338.00	99.80%	1	1	1	0.01%	13.00%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	2.86	0.461	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216LR_PC6_03	Plakophilin-3	IPI00026952	87,084.70	99.80%	1	1	1	0.01%	2.01%	AGGLDWPEATEVSPSR	R	T	95.00%	2.14	0.273	0	1	0	0	2	1,751.76	226	241	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216LR_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.07%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	2.19	0.157	0	1	0	0	2	2,224.98	55	73	TRUE	
SNU216LR_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.07%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	4.27	0.458	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216LR_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.07%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4.44	0.345	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216LR_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	7	0.07%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	5.77	0.628	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216LR_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	6	0.06%	1.93%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3	0.489	0	2	0	0	2	1,812.79	2819	2836	TRUE	
SNU216LR_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	6	0.06%	1.93%	GGVTGSPEASISGSK	K	G	95.00%	2.28	0.282	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216LR_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	6	0.06%	1.93%	GHYEVTGSDDETGK	K	L	95.00%	2.01	0.373	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216LR_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	6	0.06%	1.93%	SKGHYEVTGSDDETGK	K	L	95.00%	2.19	0.248	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216LR_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	6	0.06%	1.93%	SNSFSDER	R	E	94.30%	1.53	0.24	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216LR_PC6_03	palladin	IPI00292009	122,047.90	99.80%	2	2	2	0.02%	2.26%	GRSPRSPSGHPHVR	R	R	95.00%	2.3	0.248	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216LR_PC6_03	palladin	IPI00292009	122,047.90	99.80%	2	2	2	0.02%	2.26%	IASDEEIQGTK	R	D	95.00%	1.93	0.274	0	1	0	0	2	1,270.56	667	677	TRUE	
SNU216LR_PC6_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.90%	2	2	2	0.02%	2.25%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	2.17	0.384	0	0	1	0	2	2,174.04	104	122	TRUE	
SNU216LR_PC6_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.90%	2	2	2	0.02%	2.25%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	1.91	0.301	0	1	0	0	2	2,045.94	105	122	TRUE	
SNU216LR_PC6_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.06%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	1.93	0.396	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216LR_PC6_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.06%	4.56%	EKEISDDEAEEEK	K	G	95.00%	1.93	0.352	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216LR_PC6_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.06%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.44	0.479	0	0	1	0	2	1,944.80	221	236	TRUE	
SNU216LR_PC6_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.06%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.4	0.479	0	1	1	0	2	1,817.70	249	264	TRUE	
SNU216LR_PC6_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	5	6	6	0.06%	4.56%	IEDVGSDEEDDSGKDKK	K	K	93.30%	2.14	0.181	0	0	1	0	2	1,945.79	249	265	TRUE	
SNU216LR_PC6_03	hypothetical protein LOC286077	IPI00394829	127,102.90	99.80%	2	2	2	0.02%	3.05%	KEEASSPGAGEGPAEEGTR	K	D	95.00%	2.22	0.25	0	0	1	0	2	1,938.81	1142	1160	TRUE	
SNU216LR_PC6_03	hypothetical protein LOC286077	IPI00394829	127,102.90	99.80%	2	2	2	0.02%	3.05%	RLSLGQGDSTEAATEER	R	G	95.00%	2.33	0.26	0	0	1	0	2	1,899.84	1001	1017	TRUE	
SNU216LR_PC6_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	99.80%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.44	0.5	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216LR_PC6_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.03%	4.82%	KETESEAEDNLDDLEK	K	H	95.00%	2.15	0.461	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216LR_PC6_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.03%	4.82%	RESPSPAPKPR	K	K	95.00%	2.5	0.295	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216LR_PC6_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	3	3	0.03%	4.82%	VPKPEPIPEPKEPSPEK	K	N	95.00%	2.35	0.277	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216LR_PC6_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	99.80%	2	2	2	0.02%	2.41%	DMESPTKLDVTLAK	K	D	95.00%	1.94	0.267	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216LR_PC6_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	99.80%	2	2	2	0.02%	2.41%	RASPSKPASAPASR	K	S	95.00%	2.2	0.308	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216LR_PC6_03	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	1	1	1	0.01%	20.00%	PGPTPSGTNVGSSGRSPSK	-	A	95.00%	3.04	0.0461	0	1	0	0	2	1,849.84	1	19	TRUE	
SNU216LR_PC6_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	2	0.02%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	3.53	0.431	0	0	2	0	2	2,205.10	225	244	TRUE	
SNU216LR_PC6_03	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	1.65	0.427	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216LR_PC6_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	2	2	2	0.02%	2.61%	GSYGSDAEEEEYR	R	Q	95.00%	1.7	0.335	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216LR_PC6_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	2	2	2	0.02%	2.61%	TGLATKDGNLHEGDIILK	R	I	87.00%	2.38	0.194	0	0	1	0	2	1,974.99	335	352	TRUE	
SNU216LR_PC6_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.03%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.39	0.457	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216LR_PC6_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.03%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	3.07	0.396	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216LR_PC6_03	plectin 1 isoform 6	IPI00186711	531,783.90	99.20%	1	1	1	0.01%	0.58%	RGSFDATGSGFSMTFSSSSYSSSGYGR	K	R	84.20%	3.13	0.0988	0	0	1	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216LR_PC6_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.06%	12.10%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	2.37	0.325	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216LR_PC6_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.06%	12.10%	ETPHSPGVEDAPIAK	R	V	95.00%	2.72	0.192	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216LR_PC6_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.06%	12.10%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	3.7	0.424	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216LR_PC6_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.06%	12.10%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	3.73	0.319	0	0	0	1	2	3,612.62	223	254	TRUE	
SNU216LR_PC6_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	6	6	0.06%	12.10%	SEVQQPVHPKPLSPDSR	K	A	95.00%	1.8	0.53	0	1	0	0	2	1,980.95	350	366	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.89%	AAGARPLTSPESLSR	K	D	95.00%	1.94	0.292	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.89%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	93.80%	4.1	0.0971	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.89%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.13	0.39	0	0	3	0	2	2,564.11	957	980	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.89%	ENASPAPGTTAEEAMSR	R	G	95.00%	2.82	0.417	0	1	1	0	2	1,798.73	964	980	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.89%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	2.8	0.268	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216_PC1_01	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	4	4	0.02%	2.47%	NIPSPGQLDPDTR	R	I	95.00%	2.56	0.369	0	1	0	0	2	1,489.67	2556	2568	TRUE	
SNU216_PC1_01	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	4	4	0.02%	2.47%	TPFKDEIDEFANSPSEDKEESMEIHATGK	K	H	95.00%	3.85	0.395	0	0	1	1	2	3,361.45	1862	1890	TRUE	
SNU216_PC1_01	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	4	4	0.02%	2.47%	VPVHQHSPSEPFLEKPVPDMTQVSGPNAQ	K	S	95.00%	4.74	0.497	0	0	0	1	2	3,572.76	551	582	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	ASAVSELSPR	R	E	93.60%	1.78	0.276	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	ERSPALKSPLQSVVVR	R	R	95.00%	2.79	0.406	0	2	2	0	2	1,925.96	246	261	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	FSGEEGEIEDDESGTENR	K	E	95.00%	3.35	0.504	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	HGLAHDEMKSPR	K	E	84.40%	2.14	0.174	0	1	0	0	2	1,457.64	689	700	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	IDISPSTFR	R	K	95.00%	2.05	0.316	1	1	0	0	2	1,115.51	679	687	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	RIDISPSTFR	R	K	95.00%	2.13	0.363	0	0	1	0	2	1,271.61	678	687	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	SPALKSPLQSVVVR	R	R	95.00%	2.84	0.431	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	SPSELFAQHIVTIVHHVK	R	E	95.00%	2.88	0.373	0	0	1	1	2	2,122.08	622	639	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	2.49	0.339	0	1	0	0	2	2,011.84	315	333	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	TDSEKPFRGSQSPK	K	R	86.40%	2.19	0.168	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	5.95	0.576	0	0	2	0	2	2,717.06	922	944	TRUE	
SNU216_PC1_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	16	20	0.12%	13.10%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.11	0.428	0	0	2	1	2	3,103.24	922	947	TRUE	
SNU216_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.18%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	3.44	0.277	0	1	1	0	2	2,312.95	872	890	TRUE	
SNU216_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.18%	GSDDAPYSPTAR	K	V	95.00%	2.45	0.176	0	1	0	0	2	1,316.52	898	909	TRUE	
SNU216_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.18%	KGSDDAPYSPTAR	R	V	95.00%	2.39	0.28	0	1	0	0	2	1,444.61	897	909	TRUE	
SNU216_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.18%	LEKSPLAGNKDNK	K	F	95.00%	2.6	0.202	0	0	1	0	2	1,493.74	622	634	TRUE	
SNU216_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.18%	RPSASSPNNNTAAK	R	G	95.00%	3.06	0.386	0	1	0	0	2	1,494.67	1059	1072	TRUE	
SNU216_PC1_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.18%	SRESASPTIPNLDLLEAHTK	K	E	95.00%	2.83	0.186	0	0	1	0	2	2,259.10	534	553	TRUE	
SNU216_PC1_01	DLNB11 protein	IPI00328798	157,129.30	100.00%	3	3	3	0.02%	2.87%	EAPGSPPLSPR	R	G	95.00%	2.11	0.354	0	1	0	0	2	1,187.55	17	27	TRUE	
SNU216_PC1_01	DLNB11 protein	IPI00328798	157,129.30	100.00%	3	3	3	0.02%	2.87%	SPQVLGSSLSVRSPTGSPSR	K	L	86.20%	3.59	0.0074	0	1	0	0	2	2,158.99	975	994	TRUE	
SNU216_PC1_01	DLNB11 protein	IPI00328798	157,129.30	100.00%	3	3	3	0.02%	2.87%	TAMPSPGVSQNK	K	Q	91.20%	1.91	0.252	0	1	0	0	2	1,296.57	1013	1024	TRUE	
SNU216_PC1_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	3.83%	RASQEANLLTLAQK	R	A	95.00%	3.79	0.358	0	1	0	0	2	1,622.83	459	472	TRUE	
SNU216_PC1_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	3.83%	RRASQEANLLTLAQK	R	A	95.00%	2.93	0.312	0	0	1	0	2	1,778.93	458	472	TRUE	
SNU216_PC1_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	3.83%	TNSAEVTPPVLSVMGEATPVSIEPR	R	I	95.00%	2.86	0.214	0	0	1	0	2	2,661.28	698	722	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	ASGSENEGDYNPGR	K	K	95.00%	2.83	0.407	0	1	0	0	2	1,532.57	1549	1562	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	ASGSENEGDYNPGRK	K	T	95.00%	2.77	0.313	0	1	0	0	2	1,660.66	1549	1563	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	ASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	81.90%	3.4	0.132	0	0	1	0	2	3,210.37	1399	1427	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	FDSNEEDSASVFSPSFGLK	K	Q	95.00%	4.05	0.501	0	1	1	0	2	2,142.89	1464	1482	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	KASGSENEGDYNPGR	R	K	95.00%	2.83	0.474	0	1	0	0	2	1,740.63	1548	1562	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	KASGSENEGDYNPGRK	R	T	95.00%	3.71	0.451	0	0	1	0	2	1,788.76	1548	1563	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.82	0.475	0	1	3	1	2	3,017.35	1574	1599	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	KVVEAVNSDSDSEFGIPK	K	K	95.00%	2.8	0.159	0	2	0	0	2	2,080.89	1515	1532	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	RKASGSENEGDYNPGR	K	K	95.00%	2.51	0.276	0	1	0	0	2	1,896.73	1547	1562	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	5.1	0.196	0	1	2	0	2	2,875.18	1457	1482	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	SQDFGNLFSFPSYSQKSEDDSAK	K	F	90.20%	5.83	0.0107	0	0	1	0	2	2,664.11	1441	1463	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	TSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	3.86	0.421	0	0	1	0	2	2,889.25	1575	1599	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	VKASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	5.63	0.523	0	0	2	0	2	3,437.53	1397	1427	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	VVEAVNSDSDSEFGIPK	K	K	95.00%	2.97	0.342	0	1	0	0	2	1,872.83	1516	1532	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	VVEAVNSDSDSEFGIPKK	K	T	95.00%	3.25	0.284	0	1	0	0	2	2,080.89	1516	1533	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	YTFDFSEEEDDDADDDDDDNNDLEELK	K	V	95.00%	4	0.497	0	0	1	0	2	3,308.16	1370	1396	TRUE	
SNU216_PC1_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	17	21	26	0.16%	9.99%	YTFDFSEEEDDDADDDDDDNNDLEELKVK	K	A	95.00%	7.88	0.604	0	0	1	0	2	3,535.32	1370	1398	TRUE	
SNU216_PC1_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.80%	2	2	2	0.01%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	5.85	0.502	0	0	1	0	2	3,538.48	736	766	TRUE	
SNU216_PC1_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.80%	2	2	2	0.01%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	4.82	0.603	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216_PC1_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	K	V	95.00%	4.32	0.389	0	0	1	0	2	3,490.40	206	235	TRUE	
SNU216_PC1_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	GTDTQTPAVLSPSK	K	T	95.00%	3.16	0.477	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216_PC1_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	4.24	0.12	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216_PC1_01	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	TNKSPEAKPLPGK	K	L	95.00%	2.55	0.288	0	0	1	0	2	1,446.74	64	76	TRUE	
SNU216_PC1_01	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	260,954.70	100.00%	1	1	1	0.01%	0.85%	EENPESDGEPVVEDGTSVK	K	T	95.00%	4.1	0.425	0	1	0	0	2	2,096.85	261	279	TRUE	
SNU216_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	ADAPDAGAQSDSELPSYHQNDVSLDR	R	G	95.00%	4.05	0.437	0	1	1	0	2	2,838.19	1289	1314	TRUE	
SNU216_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	GGQSDDDEDEGVPASYHTVSLQVSQDLLD	R	A	95.00%	6.52	0.25	0	0	0	1	2	4,145.84	1472	1508	TRUE	
SNU216_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	GYTSDSEVYTDHGR	R	P	95.00%	2.81	0.495	0	1	0	0	2	1,666.64	1315	1328	TRUE	
SNU216_PC1_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	GYTSDSEVYTDHGRPGK	R	I	95.00%	3.59	0.428	0	0	1	0	2	1,948.81	1315	1331	TRUE	
SNU216_PC1_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	1	1	1	0.01%	1.85%	SRDDLYDQDDSR	R	D	95.00%	2.01	0.233	0	1	0	0	2	1,564.59	511	522	TRUE	
SNU216_PC1_01	Isoform 1 of Protein KIAA0690	IPI00101186,IPI00294794	132,711.90	99.80%	1	2	2	0.01%	1.70%	GDSIEEILADSEDEEDNEEEER	K	S	95.00%	5.29	0.531	0	1	1	0	2	2,631.99	970	991	TRUE	
SNU216_PC1_01	Carboxypeptidase D precursor	IPI00027078	152,917.40	100.00%	2	2	3	0.02%	1.67%	SLLSHEFQDETDTEEETLYSSK	K	-	95.00%	4.43	0.35	0	0	2	0	2	2,668.12	1358	1379	TRUE	
SNU216_PC1_01	Carboxypeptidase D precursor	IPI00027078	152,917.40	100.00%	2	2	3	0.02%	1.67%	SLLSHEFQDETDTEEETLYSSKH	K	-	95.00%	4.82	0.201	0	0	1	0	2	2,805.18	1358	1380	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	2	2	3	0.02%	5.46%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	3.49	0.347	0	0	2	0	2	3,506.38	473	502	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	2	2	3	0.02%	5.46%	VAQGATEKSPEDK	K	V	95.00%	2.38	0.296	0	1	0	0	2	1,439.64	443	455	TRUE	
SNU216_PC1_01	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.90%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLK	K	E	95.00%	3.1	0.135	0	1	0	0	2	2,126.01	629	646	TRUE	
SNU216_PC1_01	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.90%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLKEEEDYKEENNDSK	K	E	95.00%	6.66	0.524	0	0	1	1	2	3,735.64	629	659	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	DSQSASGEERPPEADGK	R	K	95.00%	3.28	0.419	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	EGPEPPEEVPPPTTPPVPK	K	V	95.00%	2.89	0.399	0	1	0	0	2	2,073.98	597	615	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	ERGTPPVDPK	R	L	82.30%	2.15	0.149	0	1	0	0	2	1,175.55	779	788	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	ERSDSGGSSSEPFDR	R	H	95.00%	2.85	0.158	0	1	0	0	2	1,772.62	757	771	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	GNSPNSEPPTPK	K	T	95.00%	2.58	0.271	0	1	0	0	2	1,304.55	378	389	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	GSETGSETHESDLAPSDKEAPTPK	R	E	95.00%	3.67	0.27	0	0	1	0	2	2,550.09	1105	1128	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	KQSSSEISLAVER	R	A	95.00%	2.36	0.383	0	1	0	0	2	1,513.73	454	466	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	LAWVGDVFTATPAEPRPLTSPLR	K	Q	95.00%	3.5	0.402	0	0	1	0	2	2,574.31	789	811	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	3.07	0.508	0	1	1	1	2	2,537.95	339	359	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	RKQSSSEISLAVER	R	A	95.00%	3.16	0.339	0	0	1	0	2	1,669.83	453	466	TRUE	
SNU216_PC1_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	14	0.09%	7.74%	SEGSEYEEIPKR	R	R	95.00%	2.25	0.467	0	1	1	0	2	1,503.64	1089	1100	TRUE	IPI00643923,IPI00741537
SNU216_PC1_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	4.19%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	3.94	0.42	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	4.19%	MDRDPLGGLADMFGQMPGSGIGTGPGVIQ	K	H	95.00%	4.92	0.354	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	7	7	0.04%	4.52%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	3.82	0.384	0	1	1	0	2	2,327.88	548	567	TRUE	
SNU216_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	7	7	0.04%	4.52%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	3.83	0.281	0	0	1	0	2	2,563.19	145	166	TRUE	
SNU216_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	7	7	0.04%	4.52%	QQQLEEEAAKPPEPEKPVSPPPIESK	K	H	95.00%	3.7	0.469	0	0	1	0	2	2,962.45	197	222	TRUE	
SNU216_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	7	7	0.04%	4.52%	QSPLTYEDHGAPFAGHLPR	R	G	83.10%	2.49	0.18	0	0	1	0	2	2,172.99	1545	1563	TRUE	
SNU216_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	7	7	0.04%	4.52%	TDDTSGEDNDEKEAVASK	K	G	95.00%	2.73	0.346	0	1	0	0	2	2,070.74	550	567	TRUE	
SNU216_PC1_01	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	6	7	7	0.04%	4.52%	TSVLGGGEDGIEPVSPPEGMTEPGHSR	K	S	95.00%	4.62	0.458	0	0	1	0	2	2,772.22	2219	2245	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	9	10	0.06%	5.75%	AEPSEVDMNSPK	K	S	95.00%	2.12	0.217	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	9	10	0.06%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	3.63	0.435	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	9	10	0.06%	5.75%	KEEPSQNDISPK	K	T	95.00%	3	0.378	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	9	10	0.06%	5.75%	KKAEPSEVDMNSPK	K	S	89.00%	2.29	0.18	0	1	0	0	2	1,655.73	60	73	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	9	10	0.06%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.65	0.505	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	9	10	0.06%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	4.05	0.47	0	2	0	0	2	1,791.77	117	131	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	7	9	10	0.06%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	4.31	0.474	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.04%	SMSGGHGLR	R	V	95.00%	1.92	0.41	0	1	0	0	2	981.3973	1130	1138	TRUE	
SNU216_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.04%	SQSGTLDGESAAWSASGEDSR	R	G	95.00%	4.8	0.549	0	1	0	0	2	2,177.86	1418	1438	TRUE	
SNU216_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.04%	SSSSPELQTLQDILGDPGDK	K	A	94.60%	3.7	0.0372	0	1	0	0	2	2,166.98	1385	1404	TRUE	
SNU216_PC1_01	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	4	4	4	0.02%	3.04%	SSSSPELQTLQDILGDPGDKADVGR	K	L	95.00%	4.69	0.415	0	0	1	0	2	2,665.24	1385	1409	TRUE	
SNU216_PC1_01	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	100.00%	2	2	2	0.01%	2.78%	KHSDPHLLER	K	N	95.00%	2.34	0.248	0	0	1	0	2	1,311.62	240	249	TRUE	
SNU216_PC1_01	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	100.00%	2	2	2	0.01%	2.78%	MLQDDDDTVHLPFEGGSLLQIPVK	R	A	95.00%	2.34	0.224	0	0	1	0	2	2,747.30	1170	1193	TRUE	
SNU216_PC1_01	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	2.28	0.224	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	99.80%	1	1	1	0.01%	1.53%	QPLLLSEDEEDTKR	K	V	95.00%	3.36	0.258	0	0	1	0	2	1,752.81	34	47	TRUE	
SNU216_PC1_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	4	0.02%	2.84%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	3.49	0.105	0	2	0	0	2	2,077.98	64	85	TRUE	
SNU216_PC1_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	4	0.02%	2.84%	EKTKEDLDSR	K	S	87.70%	2.01	0.233	0	1	0	0	2	1,300.58	929	938	TRUE	
SNU216_PC1_01	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	4	0.02%	2.84%	STDSPGADAELPESAAR	K	D	95.00%	2.81	0.35	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216_PC1_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.64	0.461	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	3.05%	HSDNPSEEGEVKDDGLEK	R	S	95.00%	3.51	0.5	0	1	0	0	2	2,144.81	1368	1385	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	3.05%	HSDNPSEEGEVKDDGLEKSPMK	R	K	95.00%	2.75	0.23	0	0	1	0	2	2,508.06	1368	1389	TRUE	
SNU216_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	3.05%	KKQDSSDEDDDDDEAPK	R	R	95.00%	3.74	0.465	0	1	1	0	2	2,096.72	203	219	TRUE	
SNU216_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	3.05%	KQDSSDEDDDDDEAPKR	K	Q	95.00%	4.01	0.429	0	1	0	0	2	2,124.73	204	220	TRUE	
SNU216_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	3.05%	LKEEHGIELSSPR	R	H	95.00%	2.68	0.198	0	0	1	0	2	1,574.76	1355	1367	TRUE	
SNU216_PC1_01	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	6	7	7	0.04%	3.05%	QDSSDEDDDDDEAPKR	K	Q	95.00%	3.33	0.631	0	1	0	0	2	1,996.63	205	220	TRUE	
SNU216_PC1_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	5	6	0.04%	13.70%	AHAWPSPYK	R	D	95.00%	2.35	0.408	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216_PC1_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	5	6	0.04%	13.70%	AHAWPSPYKDYEVK	R	K	95.00%	3.51	0.376	0	1	2	0	2	1,770.79	340	353	TRUE	
SNU216_PC1_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	5	6	0.04%	13.70%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	87.20%	4.98	0.055	0	0	1	1	2	4,125.84	299	333	TRUE	
SNU216_PC1_01	PREDICTED: similar to fat3	IPI00735918	507,101.70	100.00%	2	2	2	0.01%	0.98%	IVDGLGGEHQEMTTFHPESPR	K	I	82.40%	2.81	0.17	0	0	1	0	2	2,417.06	4296	4316	TRUE	
SNU216_PC1_01	PREDICTED: similar to fat3	IPI00735918	507,101.70	100.00%	2	2	2	0.01%	0.98%	LSDIEEVPNYENQDGGSAHQGSTR	R	E	95.00%	2.89	0.233	0	0	1	0	2	2,683.13	4409	4432	TRUE	
SNU216_PC1_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	2	4	0.02%	2.81%	LEDSEVRSVASNQSEMEFSSLQDMPK	R	E	95.00%	4.66	0.0941	0	0	1	0	2	3,103.27	670	695	TRUE	
SNU216_PC1_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	2	4	0.02%	2.81%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	3.79	0.544	0	3	0	0	2	2,194.90	677	695	TRUE	
SNU216_PC1_01	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	5	0.03%	1.05%	LEHSSFPEGPGPGSGDEANGPR	R	G	95.00%	5.62	0.483	0	2	2	0	2	2,273.95	2158	2179	TRUE	
SNU216_PC1_01	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	5	0.03%	1.05%	LEHSSFPEGPGPGSGDEANGPRGER	R	Q	95.00%	3.6	0.389	0	0	1	0	2	2,616.11	2158	2182	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	3.10%	GLLYDSDEEDEERPAR	R	K	95.00%	3.4	0.384	0	0	1	0	2	1,973.81	134	149	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	3.10%	GNDPLTSSPGR	R	S	82.90%	1.94	0.181	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	3.10%	RGLLYDSDEEDEERPAR	R	K	95.00%	2.94	0.231	0	0	1	0	2	2,129.91	133	149	TRUE	
SNU216_PC1_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	3.24%	ATEDGEEDEVSAGEK	K	E	95.00%	3.01	0.267	0	1	0	0	2	1,645.61	1425	1439	TRUE	
SNU216_PC1_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	3.24%	SESPSLTQER	R	A	93.10%	1.76	0.268	0	1	0	0	2	1,213.51	590	599	TRUE	
SNU216_PC1_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	3	3	3	0.02%	3.24%	SQNSQESTADESEDDMSSQASK	K	S	95.00%	5.48	0.25	0	1	0	0	2	2,440.89	1401	1422	TRUE	
SNU216_PC1_01	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	99.80%	2	3	5	0.03%	1.57%	FHSPSTTWSPNK	R	D	95.00%	2.82	0.341	0	1	0	0	2	1,468.63	479	490	TRUE	
SNU216_PC1_01	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	99.80%	2	3	5	0.03%	1.57%	FHSPSTTWSPNKDTPQEK	R	K	95.00%	3	0.303	0	1	3	0	2	2,166.95	479	496	TRUE	
SNU216_PC1_01	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	AGTPIRDSHSPDLQLPTPEVIPSSGSK	K	L	95.00%	4.5	0.404	0	0	1	0	2	2,866.40	310	336	TRUE	
SNU216_PC1_01	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	DSHSPDLQLPTPEVIPSSGSK	R	L	95.00%	3.94	0.433	0	0	1	0	2	2,271.05	316	336	TRUE	
SNU216_PC1_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.63	0.306	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216_PC1_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.62	0.328	0	1	0	0	2	1,699.67	424	438	TRUE	
SNU216_PC1_01	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	99.80%	2	2	2	0.01%	2.05%	VQAYEEPSVASSPNGK	R	E	95.00%	3.52	0.464	0	1	0	0	2	1,742.76	719	734	TRUE	
SNU216_PC1_01	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	99.80%	2	2	2	0.01%	2.05%	VQAYEEPSVASSPNGKESDLR	R	R	95.00%	3.26	0.208	0	0	1	0	2	2,343.05	719	739	TRUE	
SNU216_PC1_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	3	5	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.16	0.471	0	2	0	0	2	2,013.96	360	377	TRUE	
SNU216_PC1_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	3	5	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.73	0.441	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC1_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	3	5	0.03%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	2.49	0.322	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	9	12	0.07%	8.96%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7	0.645	0	0	1	1	2	3,607.53	769	801	TRUE	
SNU216_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	9	12	0.07%	8.96%	DPAQPMSPGEATQSGAR	R	P	95.00%	2.75	0.333	0	2	0	0	2	1,779.74	5	21	TRUE	
SNU216_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	9	12	0.07%	8.96%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.99	0.307	0	0	1	0	2	2,234.95	5	25	TRUE	
SNU216_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	9	12	0.07%	8.96%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.91	0.315	0	0	2	0	2	2,300.10	1254	1275	TRUE	
SNU216_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	9	12	0.07%	8.96%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.66	0.378	0	2	1	0	2	2,172.01	1255	1275	TRUE	
SNU216_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	9	12	0.07%	8.96%	RKSEDGTPAEDGTPAATGGSQPPSMGR	K	K	95.00%	3.36	0.378	0	0	1	0	2	2,737.19	1184	1210	TRUE	
SNU216_PC1_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	9	12	0.07%	8.96%	SPAPGAPTRSPSTPAK	K	S	95.00%	2.77	0.501	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216_PC1_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.80%	1	1	2	0.01%	6.63%	RPASPSSPEHLPATPAESPAQR	K	F	95.00%	4.22	0.133	0	0	2	0	2	2,443.08	235	256	TRUE	
SNU216_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	3	3	4	0.02%	2.65%	ALTDDSDENEEEDAFTDQK	K	I	95.00%	5.18	0.573	0	2	0	0	2	2,251.84	1207	1225	TRUE	
SNU216_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	3	3	4	0.02%	2.65%	RLFDDEASVDEPR	R	R	88.10%	2.19	0.167	0	1	0	0	2	1,628.70	638	650	TRUE	
SNU216_PC1_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	3	3	4	0.02%	2.65%	VPDSPENELK	K	S	95.00%	2	0.215	0	1	0	0	2	1,207.52	519	528	TRUE	
SNU216_PC1_01	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	99.80%	2	2	2	0.01%	1.49%	DSSIIDPGTEQDLPSPENSSVK	R	E	95.00%	4.24	0.268	0	1	0	0	2	2,395.06	3392	3413	TRUE	
SNU216_PC1_01	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	99.80%	2	2	2	0.01%	1.49%	GPENPQVEVLSEEEGEEEEEEEDILSLAEEK	K	Y	95.00%	4.65	0.384	0	0	1	0	2	3,594.53	2478	2508	TRUE	
SNU216_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	3	4	6	0.04%	1.67%	SAQGSSSPVPSMVQK	R	S	95.00%	2.42	0.278	0	1	0	0	2	1,569.70	651	665	TRUE	
SNU216_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	3	4	6	0.04%	1.67%	SAQGSSSPVPSMVQKSPR	R	I	95.00%	3.05	0.448	0	1	1	0	2	1,909.88	651	668	TRUE	
SNU216_PC1_01	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	3	4	6	0.04%	1.67%	SPGSTPTTPTSSQAPQK	K	L	95.00%	2.29	0.301	0	3	0	0	2	1,751.79	430	446	TRUE	
SNU216_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	4	8	0.05%	3.42%	EEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.23	0.517	0	1	0	0	2	2,439.00	15	38	TRUE	
SNU216_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	4	8	0.05%	3.42%	REEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.75	0.428	0	0	1	0	2	2,595.10	14	38	TRUE	
SNU216_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	4	8	0.05%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.26	0.501	0	0	4	0	2	2,831.17	13	38	TRUE	
SNU216_PC1_01	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	4	8	0.05%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.17	0.545	0	2	0	0	2	1,971.82	39	56	TRUE	
SNU216_PC1_01	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.81%	RVTQHESDNENEIQIQNK	R	L	95.00%	5.12	0.436	0	1	1	0	2	2,262.01	61	78	TRUE	
SNU216_PC1_01	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.81%	SEDSDVELSD	K	-	95.00%	1.31	0.239	1	0	0	0	2	1,175.40	1394	1403	TRUE	
SNU216_PC1_01	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.81%	VTQHESDNENEIQIQNK	R	L	95.00%	5.36	0.366	0	1	0	0	2	2,105.91	62	78	TRUE	
SNU216_PC1_01	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	3	3	3	0.02%	1.80%	GPVGTVSEAQLAR	K	R	95.00%	2.31	0.457	0	1	0	0	2	1,364.66	168	180	TRUE	
SNU216_PC1_01	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	3	3	3	0.02%	1.80%	HTIIPAKSPEK	R	C	95.00%	2.81	0.497	0	1	0	0	2	1,300.67	1908	1918	TRUE	
SNU216_PC1_01	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	3	3	3	0.02%	1.80%	SRSLSQIHEAAVR	R	M	95.00%	2.61	0.258	0	0	1	0	2	1,533.75	727	739	TRUE	
SNU216_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	7.27%	GVGSGPHPPPDTQQPSPSK	R	A	95.00%	2.71	0.324	0	1	0	0	2	1,852.82	646	663	TRUE	
SNU216_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	7.27%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	4.04	0.421	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	7.27%	SSSDPGIPGGPQAIPATNSPDHSDHTLSVSS	K	T	82.10%	5.5	0.0339	0	0	0	1	2	4,064.79	361	401	TRUE	
SNU216_PC1_01	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	4	6	6	0.04%	7.27%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.26	0.596	0	1	1	0	2	3,031.34	330	356	TRUE	
SNU216_PC1_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	8	0.05%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	3.16	0.484	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216_PC1_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	8	0.05%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	4.41	0.438	0	1	1	4	2	2,333.13	446	466	TRUE	
SNU216_PC1_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	8	0.05%	10.20%	SQEMVHLVNK	K	E	95.00%	2.21	0.182	0	1	0	0	2	1,264.58	457	466	TRUE	
SNU216_PC1_01	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	99.80%	1	1	1	0.01%	1.44%	LLEDSEESSEETVSR	R	A	95.00%	3.17	0.338	0	1	0	0	2	1,789.74	103	117	TRUE	
SNU216_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.32%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	2.5	0.313	0	1	0	0	2	1,983.92	2451	2470	TRUE	
SNU216_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.32%	GAANASGSSPDAPAK	K	D	84.20%	2.17	0.169	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.32%	LLVRPTSSETPSAAELVSAIEELVK	R	S	95.00%	5.41	0.0046	0	1	1	0	2	2,719.42	1894	1918	TRUE	
SNU216_PC1_01	triple functional domain	IPI00657953	346,902.60	100.00%	4	6	6	0.04%	2.32%	SSMEMEGIFNHK	R	D	95.00%	2.45	0.307	0	1	1	0	2	1,489.59	1723	1734	TRUE	
SNU216_PC1_01	Isoform 1 of ATPase family AAA domain-containir	IPI00170548	158,558.10	100.00%	2	3	3	0.02%	2.23%	AGDGSSVKEVETYHR	K	T	95.00%	2.92	0.368	0	1	0	0	2	1,714.74	56	70	TRUE	
SNU216_PC1_01	Isoform 1 of ATPase family AAA domain-containir	IPI00170548	158,558.10	100.00%	2	3	3	0.02%	2.23%	KPNIFYSGPASPARPR	R	Y	95.00%	3.83	0.409	0	1	1	0	2	1,837.91	317	332	TRUE	
SNU216_PC1_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	2	0.01%	4.78%	HADNSSDTEMEDMIAEETLEEMDSELLK	K	C	95.00%	5	0.455	0	0	1	0	2	3,292.31	757	784	TRUE	
SNU216_PC1_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	2	0.01%	4.78%	MDRTPPPPTLSPAAITVGR	R	G	95.00%	4.35	0.361	0	0	1	0	2	2,136.99	606	624	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	2	2	0.01%	1.66%	KVSVSESNVLLDEEVLTDPK	R	I	95.00%	3.61	0.42	0	0	1	0	2	2,281.12	2574	2593	TRUE	
SNU216_PC1_01	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	2	2	0.01%	1.66%	SLLLTDISMENVPMDTYPIHHGDPSYR	K	T	95.00%	3.95	0.329	0	0	1	0	2	3,181.44	2439	2465	TRUE	
SNU216_PC1_01	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	2	0.01%	2.01%	EGDELEDNGKNFYESDDDQKEK	K	T	95.00%	3.22	0.277	0	0	1	0	2	2,684.05	262	283	TRUE	
SNU216_PC1_01	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	2	0.01%	2.01%	NFYESDDDQKEK	K	T	95.00%	2.24	0.321	0	1	0	0	2	1,597.61	272	283	TRUE	
SNU216_PC1_01	Isoform 1 of AT-rich interactive domain-containin	IPI00015404,IPI00395617,IP	236,557.80	100.00%	1	1	1	0.01%	0.58%	MSPSKSPFLPSMK	R	M	93.00%	2.53	0.139	0	1	0	0	2	1,516.69	1549	1561	TRUE	
SNU216_PC1_01	HSPC121	IPI00008998	44,424.70	100.00%	1	1	4	0.02%	3.22%	WLDESDAEMELR	R	A	95.00%	2.64	0.35	0	4	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC1_01	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	3	3	0.02%	2.47%	ELEQHIQTSDPENFQSEER	R	S	95.00%	4.28	0.487	0	1	1	0	2	2,396.00	837	855	TRUE	
SNU216_PC1_01	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	3	3	0.02%	2.47%	LFVLLPEQSPVSYSK	R	R	95.00%	2.8	0.333	0	1	0	0	2	1,786.90	736	750	TRUE	
SNU216_PC1_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	3.79%	DRTPPLLYR	R	D	95.00%	2.59	0.354	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216_PC1_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	3.79%	GGSREYDTGGGSSSSR	R	L	95.00%	1.91	0.345	0	1	0	0	2	1,639.63	107	122	TRUE	
SNU216_PC1_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	3.79%	HLDRSPESDRPR	R	K	95.00%	2.26	0.233	0	0	1	0	2	1,544.70	652	663	TRUE	
SNU216_PC1_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	2	6	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.9	0.379	0	0	4	0	2	2,926.25	191	216	TRUE	
SNU216_PC1_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	2	6	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.9	0.343	0	0	2	0	2	3,082.36	191	217	TRUE	
SNU216_PC1_01	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	3	3	5	0.03%	6.12%	ELPPAAAIGATSLVAAPHSSSSSPSKDSSR	R	G	87.90%	4.56	0.0608	0	0	0	1	2	2,958.42	767	796	TRUE	
SNU216_PC1_01	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	3	3	5	0.03%	6.12%	EVSSRPSTPGLSVVSGISATSEDIPNKIEDLR	R	S	90.20%	5.49	0.0287	0	0	3	0	2	3,420.69	594	625	TRUE	
SNU216_PC1_01	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	3	3	5	0.03%	6.12%	RTSPSDGAMANYESTEVMGDGESAHDSPR	K	D	95.00%	8.15	0.0144	0	0	1	0	2	3,134.25	854	882	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	MPIEDSSPEK	R	G	93.40%	1.97	0.207	0	1	0	0	2	1,212.49	1190	1199	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	MPIEDSSPEKGR	R	E	95.00%	3.08	0.327	0	1	0	0	2	1,425.61	1190	1201	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	MPIEDSSPEKGREEAASK	R	G	95.00%	2.8	0.396	0	1	0	0	2	2,040.89	1190	1207	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	NDARSPGSISYLPSFFTK	R	L	95.00%	3.37	0.295	0	0	1	0	2	2,066.96	2180	2197	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	5	0.487	0	0	1	0	2	2,989.46	206	231	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	4.57	0.562	0	0	2	0	2	2,522.20	2140	2161	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	SPGSISYLPSFFTK	R	L	95.00%	2.87	0.399	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	8	8	9	0.06%	4.47%	SPNREWEVLQPAPHQVITNLPEGVR	K	L	95.00%	4.93	0.435	0	0	1	0	2	2,946.46	999	1023	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	P	95.00%	3.39	0.524	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.55	0.235	0	0	1	0	2	3,054.38	939	964	TRUE	
SNU216_PC1_01	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEK	R	N	95.00%	5.13	0.498	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216_PC1_01	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDVDGDVNVEKNETEPPK	R	G	95.00%	7.25	0.46	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216_PC1_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.38%	AALSSQQQQQLALLLQQFQTLK	K	M	95.00%	3.43	0.48	0	0	1	0	2	2,565.34	648	669	TRUE	
SNU216_PC1_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.38%	PGTPSDHQSQEASQFER	R	K	95.00%	3.75	0.5	0	1	0	0	2	1,980.81	380	396	TRUE	
SNU216_PC1_01	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	4	4	0.02%	4.38%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	95.00%	5.06	0.0755	0	0	1	1	2	3,783.64	362	396	TRUE	
SNU216_PC1_01	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	99.90%	2	2	2	0.01%	1.40%	TASPPALPK	R	I	95.00%	1.87	0.276	0	1	0	0	2	961.4756	641	649	TRUE	
SNU216_PC1_01	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	99.90%	2	2	2	0.01%	1.40%	TSSPPSSPQHSPALR	R	D	95.00%	2.37	0.29	0	1	0	0	2	1,628.74	737	751	TRUE	
SNU216_PC1_01	Calmin	IPI00101942	111,652.50	99.80%	1	1	1	0.01%	2.89%	ENDPMDSHQSQESPNLENIANPLEENVTK	K	E	95.00%	2.89	0.222	0	0	1	0	2	3,359.44	829	857	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	EDPQARPLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	7.01	0.566	0	0	1	0	2	3,121.35	1831	1859	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	KNSSTDQGSDEEGSLQK	R	E	95.00%	3.74	0.188	0	1	0	0	2	1,889.78	1061	1077	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	NSSTDQGSDEEGSLQK	K	E	95.00%	3.12	0.333	0	1	0	0	2	1,761.68	1062	1077	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	NSSTDQGSDEEGSLQKEQESAMDK	K	H	95.00%	2.71	0.27	0	0	1	0	2	2,680.06	1062	1085	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	NSSTDQGSDEEGSLQKEQESAMDKHNLER	K	K	95.00%	5.24	0.196	0	0	0	1	2	3,329.39	1062	1090	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	PLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	6.52	0.595	0	0	1	0	2	2,425.03	1837	1859	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	RASWASENGETDAEGTQMTPAK	R	R	95.00%	4.22	0.481	0	1	1	0	2	2,417.01	1864	1885	TRUE	
SNU216_PC1_01	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	238,562.00	100.00%	8	9	9	0.06%	5.45%	TSQPPVPQGEAEEDSQGKEGPSGSGDSQLS	K	S	95.00%	3.43	0.267	0	0	1	0	2	3,466.49	726	759	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	7	0.04%	6.65%	EKPEEIQDPAALTSDAEQPSGFTFSFFDSDTK	K	D	95.00%	6.47	0.0273	0	0	1	0	2	3,614.57	897	928	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	7	0.04%	6.65%	EYDSGDTDEIIAMK	R	K	95.00%	3.22	0.354	0	2	0	0	2	1,666.66	249	262	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	7	0.04%	6.65%	FLETDSEEEQEEVNEK	R	K	95.00%	3.15	0.459	0	1	0	0	2	2,114.77	759	774	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	7	0.04%	6.65%	FLETDSEEEQEEVNEKK	R	T	95.00%	2.79	0.171	0	1	0	0	2	2,242.87	759	775	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	7	0.04%	6.65%	NDREYDSGDTDEIIAMK	R	K	95.00%	3.38	0.336	0	1	0	0	2	2,131.79	246	262	TRUE	
SNU216_PC1_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	6	7	0.04%	6.65%	NSSPGEASLLEK	R	E	92.60%	2.37	0.153	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216_PC1_01	Novel protein	IPI00409607,IPI00642366	166,735.90	100.00%	3	3	3	0.02%	4.16%	GALSPITDNTEVDTGIHVPSEDIPETMDEDS	K	D	81.60%	4.32	0.0566	0	0	1	0	2	3,720.65	597	630	TRUE	
SNU216_PC1_01	Novel protein	IPI00409607,IPI00642366	166,735.90	100.00%	3	3	3	0.02%	4.16%	LNQSSPDNVTDTK	K	G	95.00%	2.75	0.307	0	1	0	0	2	1,498.64	584	596	TRUE	
SNU216_PC1_01	Novel protein	IPI00409607,IPI00642366	166,735.90	100.00%	3	3	3	0.02%	4.16%	YDGESDKEQFDDDQK	K	V	95.00%	3.64	0.409	0	1	0	0	2	1,898.70	1133	1147	TRUE	
SNU216_PC1_01	Cleavage and polyadenylation specificity factor, 1	IPI00026219	160,885.90	100.00%	1	2	3	0.02%	2.70%	SGPEAEGLGSETSPTVDDEEEMLYGDSGSLF	R	R	95.00%	4.56	0.191	0	0	2	1	2	4,169.75	725	763	TRUE	
SNU216_PC1_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	2	2	2	0.01%	3.12%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	83.30%	5.49	0.0256	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216_PC1_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	2	2	2	0.01%	3.12%	RSSLLSLMTGK	R	K	95.00%	2.47	0.425	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC1_01	Gem-associated protein 5	IPI00291783	168,562.60	99.80%	1	1	1	0.01%	1.33%	ENSGPVENGVSDQEGEEQAR	K	E	95.00%	2.96	0.328	0	1	0	0	2	2,210.88	768	787	TRUE	
SNU216_PC1_01	CENP-F kinetochore protein	IPI00027157	367,594.20	99.80%	2	2	2	0.01%	1.25%	GSPLLGPVVPGPSPIPSVTEK	R	R	95.00%	2.59	0.366	0	1	0	0	2	2,188.07	2995	3015	TRUE	
SNU216_PC1_01	CENP-F kinetochore protein	IPI00027157	367,594.20	99.80%	2	2	2	0.01%	1.25%	VAQRSPVDSGTILREPTTK	K	S	95.00%	3.95	0.34	0	0	1	0	2	2,135.09	3146	3164	TRUE	
SNU216_PC1_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.90%	2	2	3	0.02%	2.84%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.35	0.377	0	0	1	0	2	2,672.22	157	179	TRUE	
SNU216_PC1_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.90%	2	2	3	0.02%	2.84%	TGSGSPFAGNSPAR	K	E	95.00%	2.12	0.233	0	2	0	0	2	1,465.55	1265	1278	TRUE	
SNU216_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	7	0.04%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	3.22	0.427	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	7	0.04%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	3.91	0.45	0	3	0	0	2	2,129.88	78	96	TRUE	
SNU216_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	7	0.04%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	3.55	0.43	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	7	0.04%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	3.14	0.18	0	0	1	0	2	2,257.97	77	96	TRUE	
SNU216_PC1_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	5	7	0.04%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.99	0.408	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216_PC1_01	U5 small nuclear ribonucleoprotein 200 kDa helic	IPI00420014	244,513.80	100.00%	1	1	3	0.02%	0.75%	EEASDDDMEGDEAVVR	R	C	95.00%	4.32	0.617	0	3	0	0	2	1,862.66	222	237	TRUE	
SNU216_PC1_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	99.80%	2	2	2	0.01%	2.80%	FSPDSQYIDNR	R	S	95.00%	2.6	0.302	0	1	0	0	2	1,421.57	382	392	TRUE	
SNU216_PC1_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	99.80%	2	2	2	0.01%	2.80%	RSSDPALIGLSTSVSDSNFSSEEPSRK	R	N	95.00%	7.12	0.492	0	0	1	0	2	2,933.35	142	168	TRUE	
SNU216_PC1_01	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	3	3	3	0.02%	3.23%	LDSSPVLSPGNK	K	A	95.00%	2.79	0.509	0	1	0	0	2	1,293.61	775	786	TRUE	
SNU216_PC1_01	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	3	3	3	0.02%	3.23%	SDSVLPASHGHLPQAGSLER	K	N	95.00%	3.29	0.215	0	0	1	0	2	2,138.00	747	766	TRUE	
SNU216_PC1_01	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	3	3	3	0.02%	3.23%	SNSAWQIYLQR	R	R	95.00%	1.98	0.283	0	1	0	0	2	1,445.66	699	709	TRUE	
SNU216_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	11	0.07%	4.92%	AGAGMITQHSSNASPINR	R	I	89.30%	2.71	0.113	0	1	0	0	2	1,891.85	989	1006	TRUE	
SNU216_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	11	0.07%	4.92%	DGQDAIAQSPEKESK	K	D	95.00%	3.69	0.474	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	11	0.07%	4.92%	ISSKSPGHMVILDQTK	R	G	95.00%	3.3	0.355	0	2	3	0	2	1,820.90	549	564	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	11	0.07%	4.92%	RISSKSPGHMVILDQTK	K	G	95.00%	3.71	0.278	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216_PC1_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	7	11	0.07%	4.92%	SPGHMVILDQTK	K	G	95.00%	2.62	0.257	0	1	1	0	2	1,405.65	553	564	TRUE	
SNU216_PC1_01	Protein KIAA0329/KIAA0297	IPI00415054	154,063.50	99.80%	1	1	1	0.01%	2.90%	ADEGSPVEPSQEQDILTSMEASGHLSTNLW	R	E	95.00%	4.18	0.383	0	0	0	1	2	4,475.95	669	709	TRUE	
SNU216_PC1_01	Cytospin-A	IPI00178072	124,595.60	99.80%	1	1	1	0.01%	1.34%	AQLGINEDHSEGDEK	R	S	95.00%	3.34	0.307	0	1	0	0	2	1,721.70	211	225	TRUE	
SNU216_PC1_01	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	2.94%	DIEVLSEDTDYEEDEVTK	K	K	95.00%	3.34	0.452	0	1	0	0	2	2,208.90	699	716	TRUE	
SNU216_PC1_01	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	2.94%	DIEVLSEDTDYEEDEVTKK	K	R	95.00%	2.9	0.346	0	1	0	0	2	2,416.96	699	717	TRUE	
SNU216_PC1_01	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	2.94%	LSKPPFQTNPSPEMVSK	R	L	95.00%	2.98	0.231	0	1	0	0	2	1,966.93	579	595	TRUE	
SNU216_PC1_01	UNC93 homolog B1	IPI00008490	66,633.10	100.00%	2	3	5	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.56	0.664	0	0	2	0	2	3,332.21	541	570	TRUE	
SNU216_PC1_01	UNC93 homolog B1	IPI00008490	66,633.10	100.00%	2	3	5	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	4.48	0.393	0	0	1	2	2	4,263.69	541	580	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	EHSPDSDAYNSGDDKNEK	R	H	95.00%	2.83	0.474	0	2	0	0	2	2,087.78	843	860	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	EVSPEVVR	K	S	95.00%	1.76	0.313	1	1	0	0	2	994.4605	196	203	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	GDSDISDEEAAQQSK	K	K	95.00%	3.51	0.437	0	2	0	0	2	1,659.64	1012	1026	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	GNIETTSEDGQVFSPK	R	K	95.00%	3.7	0.428	0	1	0	0	2	1,788.77	980	995	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	GNIETTSEDGQVFSPKK	R	G	95.00%	2.61	0.296	0	1	0	0	2	1,916.86	980	996	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	GPRTPSPPPPIPEDIALGK	K	K	95.00%	4.32	0.389	0	1	1	0	2	2,099.00	260	278	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	GPRTPSPPPPIPEDIALGKK	K	Y	95.00%	3.53	0.215	0	0	1	0	2	2,227.09	260	279	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	HHSSSSQSGSSIQRHSPSPR	R	R	95.00%	2.68	0.291	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	KEDTAFSDWSDEDVPDR	K	T	95.00%	2.84	0.255	0	1	0	0	2	2,091.82	1059	1075	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	KGPRTPSPPPPIPEDIALGK	K	K	95.00%	4.78	0.34	0	0	1	0	2	2,227.09	259	278	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	KTSAVSSPLLDQQR	R	N	95.00%	2.8	0.498	0	2	0	0	2	1,609.79	236	249	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	LRSPSNDSAHR	R	S	95.00%	3.09	0.351	0	0	1	0	2	1,319.59	1206	1216	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	NEGSPSPRQSPKR	R	R	95.00%	1.83	0.337	0	1	0	0	2	1,679.63	828	840	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	REHSPDSDAYNSGDDKNEK	R	H	85.70%	3	0.121	0	0	1	0	2	2,323.85	842	860	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	SASPYPSHSLSSPQR	R	K	95.00%	2.51	0.307	0	1	0	0	2	1,680.74	370	384	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	SKGDSDISDEEAAQQSK	K	K	95.00%	4.21	0.486	0	3	0	0	2	1,874.77	1010	1026	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	STSPAGQHHSPISSR	R	H	92.80%	1.97	0.243	0	0	1	0	2	1,788.65	316	330	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	TPSPPPPIPEDIALGK	R	K	95.00%	2.46	0.303	0	1	0	0	2	1,788.82	263	278	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	TPSPPPPIPEDIALGKK	R	Y	95.00%	3.06	0.237	0	1	1	0	2	1,916.92	263	279	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	TSAVSSPLLDQQR	K	N	95.00%	2.63	0.392	0	1	0	0	2	1,481.70	237	249	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	21	24	29	0.18%	11.30%	YRNEGSPSPRQSPK	R	R	95.00%	2.09	0.385	0	1	0	0	2	1,842.70	826	839	TRUE	
SNU216_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	5.14%	ESVSPEDSEK	K	K	92.70%	2.07	0.185	0	1	0	0	2	1,186.45	365	374	TRUE	
SNU216_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	5.14%	IGEVSSPK	K	A	81.00%	1.77	0.266	0	1	0	0	2	896.4126	307	314	TRUE	
SNU216_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	5.14%	IIYDSDSESEETLQVK	R	N	95.00%	4.08	0.0824	0	2	0	0	2	1,935.85	65	80	TRUE	
SNU216_PC1_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	7	0.04%	5.14%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	2.44	0.38	0	0	2	1	2	2,798.45	152	176	TRUE	
SNU216_PC1_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	2	3	3	0.02%	4.21%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	5.46	0.531	0	0	1	1	2	3,209.61	696	726	TRUE	
SNU216_PC1_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	2	3	3	0.02%	4.21%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.53	0.0281	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC1_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	4.21%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.82	0.412	0	1	0	0	2	2,114.05	687	705	TRUE	
SNU216_PC1_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	4.21%	GSHQISLDNPDYQQDFFPK	K	E	95.00%	3.57	0.371	0	1	1	0	2	2,316.00	1161	1179	TRUE	
SNU216_PC1_01	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	4.21%	MHLPSPTDSNFYR	R	A	93.80%	2.16	0.254	0	1	0	0	2	1,644.69	987	999	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	7	8	0.05%	5.82%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	3.93	0.383	0	1	1	0	2	2,882.10	701	724	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	7	8	0.05%	5.82%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	5.27	0.527	0	0	1	0	2	2,764.06	667	688	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	7	8	0.05%	5.82%	SEDESETEDEEEK	R	S	95.00%	2.83	0.356	0	1	0	0	2	1,635.54	668	680	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	7	8	0.05%	5.82%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.31	0.587	0	1	1	0	2	2,607.96	668	688	TRUE	
SNU216_PC1_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	7	8	0.05%	5.82%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	6.39	0.617	0	0	2	0	2	2,764.06	668	689	TRUE	
SNU216_PC1_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.82	0.454	0	0	1	1	2	1,836.88	210	226	TRUE	
SNU216_PC1_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	3.66	0.471	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216_PC1_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	3.12	0.385	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	5	6	0.04%	1.56%	HVTLPSSPR	R	S	95.00%	2.05	0.415	0	1	0	0	2	1,073.51	2713	2721	TRUE	
SNU216_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	5	6	0.04%	1.56%	RHVTLPSSPR	R	S	95.00%	2.6	0.176	0	0	1	0	2	1,229.62	2712	2721	TRUE	
SNU216_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	5	6	0.04%	1.56%	SNTPMGDKDDDDDDDADEK	R	M	95.00%	2.64	0.615	0	2	0	0	2	2,193.73	2722	2740	TRUE	
SNU216_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	5	6	0.04%	1.56%	TGSTSSKEDDYESDAATIVQK	R	C	92.00%	3.76	0.0156	0	1	0	0	2	2,311.98	360	380	TRUE	
SNU216_PC1_01	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	5	5	6	0.04%	1.56%	TSPADHGGSVGSESGGSAVDSVAGEHSVS	R	S	83.60%	5.85	0.0014	0	0	1	0	2	2,920.23	2884	2914	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	AHSEKDQPPFGDSDDSVEADKSSPGIHLER	R	S	95.00%	6.19	0.219	0	0	0	1	2	3,410.42	483	512	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	4.04	0.301	0	0	1	0	2	2,433.10	784	805	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	AQPFGFIDSDTDAEEER	R	I	95.00%	2.74	0.358	0	1	0	0	2	2,006.80	321	337	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	DSDTDVEEEELPVENR	R	E	95.00%	3.49	0.501	0	1	0	0	2	1,955.78	452	467	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	GPGAPGLAHLQESQAGSDTDVEEGKAPQA	R	S	95.00%	4.59	0.289	0	0	1	1	2	3,463.64	360	393	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	SQASMVINSDTDDEEEVSAALTLAHLK	K	E	92.20%	4.88	0.057	0	0	1	0	2	2,954.33	394	420	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	SQPPGEDSDTDVDDDSRPPGRPAEVHLER	R	A	94.00%	3.01	0.157	0	0	1	0	2	3,333.37	292	320	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTS	R	G	94.20%	5.83	0.0304	0	0	1	0	2	3,857.87	1153	1188	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTV	R	G	91.00%	5.34	0.0359	0	0	1	0	2	3,905.87	1235	1270	TRUE	
SNU216_PC1_01	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	10	11	11	0.07%	13.20%	SSVKTPEPVVPTAPEPHPTTSTDQPVTPK	R	L	95.00%	4.24	0.43	0	0	1	0	2	3,104.52	1604	1632	TRUE	
SNU216_PC1_01	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	5.08	0.518	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC1_01	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.02	0.216	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	8	10	0.06%	4.17%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	4.04	0.564	0	2	1	0	2	2,224.85	760	778	TRUE	
SNU216_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	8	10	0.06%	4.17%	EADDDEEVDDNIPEMPSPKK	K	M	95.00%	3.83	0.517	0	2	0	0	2	2,352.94	760	779	TRUE	
SNU216_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	8	10	0.06%	4.17%	SDGEAKPEPSPSPR	K	I	95.00%	2.85	0.462	0	1	0	0	2	1,533.66	205	218	TRUE	
SNU216_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	8	10	0.06%	4.17%	SKSDGEAKPEPSPSPR	R	I	95.00%	2.93	0.322	0	1	1	0	2	1,748.79	203	218	TRUE	
SNU216_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	8	10	0.06%	4.17%	VGMADANSPPKPLSKPR	R	T	95.00%	2.38	0.245	0	1	0	0	2	1,844.91	182	198	TRUE	
SNU216_PC1_01	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	8	10	0.06%	4.17%	VNPQISDEKDEDEKEEK	K	R	95.00%	2.93	0.237	0	0	1	0	2	2,111.90	369	385	TRUE	
SNU216_PC1_01	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.80%	1	1	1	0.01%	0.99%	GGDVSPSPYSSSSWR	R	R	95.00%	2.66	0.293	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	1.55%	AHTPLNTPDPSTK	R	L	95.00%	2.75	0.297	0	1	0	0	2	1,458.66	1348	1360	TRUE	
SNU216_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	1.55%	ETEPLVSPHQDK	R	L	95.00%	2.7	0.328	0	1	0	0	2	1,459.65	245	256	TRUE	IPI00442150

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	1.55%	KSESPFRETEPLVSPHQDK	K	L	95.00%	4.29	0.356	0	0	1	1	2	2,291.07	238	256	TRUE	IPI00442150
SNU216_PC1_01	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	1.55%	SESPFRETEPLVSPHQDK	K	L	95.00%	3.77	0.337	0	0	1	0	2	2,162.98	239	256	TRUE	IPI00442150
SNU216_PC1_01	Isoform 1 of STE20-like serine/threonine-protein I	IPI00022827	142,697.80	100.00%	1	2	2	0.01%	1.86%	VDEDSAEDTQSNDGKEVVEVGQK	K	L	95.00%	5.2	0.319	0	1	1	0	2	2,558.08	561	583	TRUE	
SNU216_PC1_01	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	4	5	0.03%	5.10%	NIMTQQKDSFEMEEVQSTEGEAPHVPATY(	R	S	95.00%	7.48	0.648	0	0	1	1	2	4,016.83	458	492	TRUE	
SNU216_PC1_01	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	4	5	0.03%	5.10%	SQSLPTTLLSPVR	R	V	95.00%	2.98	0.488	0	2	0	0	2	1,478.76	737	749	TRUE	
SNU216_PC1_01	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	4	5	0.03%	5.10%	TPLGASLDEQSSSTLK	R	G	95.00%	3.43	0.422	0	1	0	0	2	1,713.79	87	102	TRUE	
SNU216_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	4	0.02%	4.27%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	4.13	0.334	0	0	1	0	2	2,206.01	40	59	TRUE	
SNU216_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	4	0.02%	4.27%	ATSPVKSTTSITDAK	K	S	95.00%	2.63	0.263	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	4	0.02%	4.27%	NKASPQSEFMPSK	K	G	95.00%	2.78	0.404	0	1	0	0	2	1,530.67	789	801	TRUE	
SNU216_PC1_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	4	4	4	0.02%	4.27%	QPLSEASNQQPLSGGEEK	R	S	92.00%	2.4	0.165	0	1	0	0	2	1,978.88	42	59	TRUE	
SNU216_PC1_01	Ras GTPase-activating-like protein IQGAP1	IPI00009342	189,258.60	100.00%	1	1	1	0.01%	0.91%	SKSVKEDSNLTLQEK	K	K	95.00%	2.58	0.219	0	0	1	0	2	1,785.86	1441	1455	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	ADHRSSPNVANQPPSPGGK	R	S	95.00%	3.11	0.403	0	1	0	0	2	2,075.87	1167	1185	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	KSDSDMWINQSSSLDSSTSSQEHLNHSSK	R	S	91.50%	4.47	0.0733	0	0	0	1	2	3,302.39	1298	1326	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	4.82	0.332	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	SKSQDADSPGSSGAPENLTFK	R	E	81.30%	2.67	0.142	0	0	1	0	2	2,202.96	1782	1802	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	SQDADSPGSSGAPENLTFK	K	E	95.00%	3.42	0.366	0	2	0	0	2	1,987.83	1784	1802	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	SSPNVANQPPSPGGK	R	S	95.00%	3.59	0.465	0	3	0	0	2	1,516.68	1171	1185	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	TQVLSPDSLFTAK	K	F	95.00%	2.66	0.455	0	1	0	0	2	1,486.72	1727	1739	TRUE	
SNU216_PC1_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	8	8	11	0.07%	6.22%	TSSVVTLEVAK	R	Q	93.80%	2.05	0.206	1	0	0	0	2	1,213.61	1080	1090	TRUE	
SNU216_PC1_01	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	99.80%	1	1	1	0.01%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.78	0.333	0	0	1	0	2	2,541.20	7	31	TRUE	
SNU216_PC1_01	Putative chloride channel protein 7	IPI00020524,IPI00745767	89,390.00	99.80%	1	2	2	0.01%	3.20%	VGHMSSVELDDELLDPDMDPPHPFPK	R	E	95.00%	6.3	0.433	0	0	1	1	2	2,997.31	56	81	TRUE	
SNU216_PC1_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.24%	LSSSDSIGPDVTDILSDIAEEASK	R	L	95.00%	4.8	0.0108	0	1	0	0	2	2,529.15	769	792	TRUE	
SNU216_PC1_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.24%	NSSQSGGKPGSSPITK	K	H	95.00%	3	0.24	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216_PC1_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.24%	PSSLMNPSLSKPNISPSHSRPPGGSDK	K	L	87.10%	3.05	0.2	0	0	0	1	2	2,854.36	1178	1204	TRUE	
SNU216_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	5	6	8	0.05%	6.12%	DSEDVSERDSDKEMATK	R	S	95.00%	2.85	0.329	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	5	6	8	0.05%	6.12%	GLAEVQQDGEAEEGATSDGEK	K	K	95.00%	3.93	0.439	0	2	1	0	2	2,199.89	581	601	TRUE	
SNU216_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	5	6	8	0.05%	6.12%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	3.09	0.334	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	5	6	8	0.05%	6.12%	RPSESDKEDELDK	R	V	95.00%	2.04	0.379	0	2	0	0	2	1,627.69	624	636	TRUE	
SNU216_PC1_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	5	6	8	0.05%	6.12%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	3.91	0.431	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216_PC1_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	3	0.02%	7.63%	HPEPVPEEGSEDELPPQVHKV	R	-	95.00%	4.27	0.439	0	0	1	0	2	2,429.10	819	839	TRUE	
SNU216_PC1_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	3	0.02%	7.63%	LEASYSDSPPGEEDLLVHVAEGSK	R	S	95.00%	3.18	0.398	0	0	1	0	2	2,609.17	11	34	TRUE	
SNU216_PC1_01	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	3	0.02%	7.63%	RESDESGESAPDEGGEGAR	R	A	95.00%	3.9	0.531	0	1	0	0	2	2,014.76	733	751	TRUE	
SNU216_PC1_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	1	1	1	0.01%	0.78%	ELDPSLVSANDSPSGMQTR	R	C	95.00%	4.63	0.066	0	1	0	0	2	2,083.90	2150	2168	TRUE	
SNU216_PC1_01	Isoform 1 of Ankyrin repeat domain-containing p	IPI00448465,IPI00448466	235,659.20	99.90%	2	2	2	0.01%	1.60%	DNSPDSTPNHPSQTTPAQK	R	K	95.00%	2.07	0.256	0	1	0	0	2	2,101.88	147	165	TRUE	
SNU216_PC1_01	Isoform 1 of Ankyrin repeat domain-containing p	IPI00448465,IPI00448466	235,659.20	99.90%	2	2	2	0.01%	1.60%	SSFVSDNSLNRSPR	K	S	95.00%	2.02	0.265	0	1	0	0	2	1,645.73	1178	1191	TRUE	
SNU216_PC1_01	215 kDa protein	IPI00470901,IPI00746684	215,345.50	99.20%	2	2	2	0.01%	1.66%	LSPFHGSSPPQSTPLSPPPLTPK	R	A	84.30%	3.37	0.105	0	0	1	0	2	2,529.18	1774	1796	TRUE	
SNU216_PC1_01	215 kDa protein	IPI00470901,IPI00746684	215,345.50	99.20%	2	2	2	0.01%	1.66%	SLQLMDNR	K	L	95.00%	1.87	0.386	0	1	0	0	2	1,056.45	1766	1773	TRUE	
SNU216_PC1_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	5	5	5	0.03%	6.23%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.09	0.393	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216_PC1_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	5	5	5	0.03%	6.23%	EEPVSSGPEEAVGK	K	S	95.00%	2.12	0.273	0	1	0	0	2	1,574.60	565	578	TRUE	
SNU216_PC1_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	5	5	5	0.03%	6.23%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.87	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC1_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	5	0.03%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	4.5	0.566	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216_PC1_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	5	0.03%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	87.10%	3.49	0.0384	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216_PC1_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	5	0.03%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	5.28	0.504	0	2	1	0	2	2,246.87	1059	1079	TRUE	
SNU216_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.93%	GPKPEPPGSGSPAPPR	R	R	95.00%	2.89	0.281	0	1	0	0	2	1,687.72	730	745	TRUE	
SNU216_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.93%	GPKPEPPGSGSPAPPRR	R	R	95.00%	3.02	0.4	0	0	1	0	2	1,763.86	730	746	TRUE	
SNU216_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.93%	KPSVSEEVQATPNK	R	A	95.00%	4.54	0.571	0	2	0	0	2	1,593.75	1105	1118	TRUE	
SNU216_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.93%	KRSWGHESPEER	R	H	91.80%	2.53	0.189	0	0	1	0	2	1,577.69	1007	1018	TRUE	
SNU216_PC1_01	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.93%	QEPGGSHGSETEDTGR	K	S	95.00%	2.93	0.486	0	1	0	0	2	1,723.66	645	660	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	DASLHGLSQYNSL	R	-	95.00%	2.78	0.39	0	1	0	0	2	1,484.64	1593	1605	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	DHAPSIPTSPFGDSLESSTELR	R	R	95.00%	3.47	0.468	0	0	1	0	2	2,423.08	249	270	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	EDVTPPLSPDDLK	K	Y	87.50%	2.36	0.139	0	1	0	0	2	1,585.64	1049	1061	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	EGPVGGESDSEEMFEK	R	T	95.00%	2.86	0.332	0	1	0	0	2	1,806.68	404	419	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	GLPSTSSKEDVTPPLSPDDLK	K	Y	95.00%	2.89	0.218	0	1	0	0	2	2,343.04	1041	1061	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	REGPVGGESDSEEMFEK	K	T	95.00%	4.78	0.465	0	1	0	0	2	1,962.78	403	419	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	SLYGDVDSPLPTGEAGGPPSTR	K	E	95.00%	4.8	0.19	0	1	0	0	2	2,253.01	177	198	TRUE	
SNU216_PC1_01	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	8	8	0.05%	8.10%	WAPHSPTASQPQSPGDPTSLEEHGGEEPPE	R	D	83.50%	5.34	0.0221	0	0	0	1	2	3,958.63	1558	1592	TRUE	
SNU216_PC1_01	CLIP-associating protein 1	IPI00396279,IPI00645145	169,455.80	100.00%	3	3	3	0.02%	3.06%	NSSNTSVGSPSNTIGR	K	T	89.80%	3.52	0.0456	0	0	1	0	2	1,657.72	1083	1098	TRUE	
SNU216_PC1_01	CLIP-associating protein 1	IPI00396279,IPI00645145	169,455.80	100.00%	3	3	3	0.02%	3.06%	RQSSGSATNVASTPDNR	R	G	95.00%	2.89	0.362	0	1	0	0	2	1,827.80	644	660	TRUE	
SNU216_PC1_01	CLIP-associating protein 1	IPI00396279,IPI00645145	169,455.80	100.00%	3	3	3	0.02%	3.06%	SRSDIDVNAAASAK	R	S	95.00%	4.18	0.509	0	1	0	0	2	1,484.67	598	611	TRUE	
SNU216_PC1_01	WD-repeat protein 33	IPI00106567	145,920.70	100.00%	2	4	4	0.02%	2.40%	DTPRPDHPPHDGHSPASR	R	E	95.00%	2.92	0.235	0	0	0	1	2	2,055.88	1197	1214	TRUE	
SNU216_PC1_01	WD-repeat protein 33	IPI00106567	145,920.70	100.00%	2	4	4	0.02%	2.40%	SSSLDGEHHDGYHR	R	D	95.00%	2.39	0.306	0	1	1	1	2	1,676.65	1277	1290	TRUE	
SNU216_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	DKSDSPAIQLR	R	L	95.00%	2.22	0.239	0	1	0	0	2	1,309.62	936	946	TRUE	
SNU216_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	GDLSDVEEEEEEEEMDVDEATGAVK	R	K	95.00%	5.22	0.43	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	GDLSDVEEEEEEEEMDVDEATGAVKK	K	H	95.00%	5.46	0.528	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	5.49	0.0693	0	0	1	0	2	4,089.02	277	313	TRUE	
SNU216_PC1_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	YMNSDTTSPELR	R	E	95.00%	2.71	0.208	0	1	0	0	2	1,493.60	1105	1116	TRUE	
SNU216_PC1_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	1	1	0.01%	1.73%	DYDDMSPR	R	R	95.00%	1.69	0.305	0	1	0	0	2	1,078.35	279	286	TRUE	
SNU216_PC1_01	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.6	0.331	0	1	1	0	2	1,656.70	340	354	TRUE	
SNU216_PC1_01	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.37	0.379	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216_PC1_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	1	1	1	0.01%	0.82%	SPVPAQIAITVPK	R	T	95.00%	1.92	0.341	0	1	0	0	2	1,400.76	495	507	TRUE	
SNU216_PC1_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	84.20%	2.53	0.186	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC1_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.35	0.329	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC1_01	Cyclin G-associated kinase	IPI00298949	143,192.40	100.00%	1	1	1	0.01%	2.36%	ESESALMEDRDESEVSDEGGSPISSEGQEPR	K	A	95.00%	4.21	0.112	0	0	1	0	2	3,498.34	814	844	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	9	0.06%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	6.25	0.456	0	0	2	1	2	2,877.32	600	626	TRUE	
SNU216_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	9	0.06%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	3.95	0.401	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	9	0.06%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	7.23	0.53	0	0	3	0	2	3,292.37	627	658	TRUE	
SNU216_PC1_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	6	9	0.06%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	6.36	0.439	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	DAELQDQEFGKRDSLGTYSSR	R	D	95.00%	2.48	0.31	0	1	1	0	2	2,482.09	859	879	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	4.15	0.49	0	0	1	1	2	2,929.37	1015	1043	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	DSLGAYASQDANEQGQDLGK	R	R	95.00%	3.53	0.469	0	1	1	0	2	2,146.89	892	911	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	EAAFSPGQQDWSR	R	D	95.00%	2.31	0.187	0	1	0	0	2	1,558.63	1099	1111	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	FSEGVLQSPSQDQEK	R	L	95.00%	3	0.183	0	1	0	0	2	1,758.76	428	442	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	2.82	0.398	0	1	1	0	2	2,090.97	1023	1043	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	LDSPPPSPITEASEAAEAAEAGNLAVSSR	R	E	95.00%	3.95	0.55	0	0	1	0	2	2,917.35	492	520	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	NRSAEEGELAESK	R	S	95.00%	2.94	0.275	0	1	1	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	5.55	0.552	0	1	1	0	2	2,302.99	891	911	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	7.52	0.535	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	SAEEGELAESK	R	S	95.00%	2.05	0.383	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	SFGTRPLSSGFSPEEAQQQDEEFEK	R	K	89.80%	4.72	0.0566	0	0	1	0	2	2,910.25	976	1000	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	3.91	0.515	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	SQEADVQDWEFR	R	K	95.00%	3.07	0.456	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	VPSSDEEVVEEPQSR	R	R	95.00%	4.23	0.461	0	3	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	WLDDLLASPPPSGGGAR	R	R	95.00%	2.84	0.17	0	1	0	0	2	1,788.83	684	700	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	WSDQGPAQTSR	R	R	95.00%	2.2	0.34	0	1	0	0	2	1,312.53	1532	1542	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.6	0.592	0	1	1	0	2	2,166.01	590	608	TRUE	
SNU216_PC1_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	19	27	29	0.18%	17.80%	YSSQDADEQDWEFQKR	R	D	95.00%	3.85	0.507	0	1	0	0	2	2,111.83	918	933	TRUE	
SNU216_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	6	6	0.04%	12.40%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	4.95	0.523	0	0	1	0	2	3,065.37	341	365	TRUE	
SNU216_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	6	6	0.04%	12.40%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.01	0.423	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	6	6	0.04%	12.40%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.46	0.337	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	6	6	0.04%	12.40%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.33	0.425	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216_PC1_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	6	6	0.04%	12.40%	SLSPGKENVSALDMEK	K	E	95.00%	3.38	0.449	0	1	0	0	2	1,784.81	441	456	TRUE	
SNU216_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.30%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.73	0.283	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.30%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.11	0.268	0	1	0	0	2	1,861.85	269	284	TRUE	
SNU216_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.30%	HDTPDPSPLR	R	G	91.90%	2.06	0.211	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216_PC1_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	4	0.02%	6.30%	YEYDPDISPPR	K	K	95.00%	2.32	0.35	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	10	0.06%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.23	0.419	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	10	0.06%	4.56%	EKEISDDEAEEEK	R	G	95.00%	3.38	0.389	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	10	0.06%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	4.13	0.479	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	10	0.06%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.88	0.442	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	10	0.06%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.7	0.493	0	2	1	0	2	1,817.70	249	264	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	10	0.06%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.6	0.434	0	1	1	0	2	1,945.79	249	265	TRUE	
SNU216_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	AFLAELEQNSPK	K	I	95.00%	3.6	0.502	0	1	0	0	2	1,426.66	2389	2400	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	MLSSSDAITQEFMDLR	R	T	95.00%	3.83	0.471	0	1	0	0	2	1,923.82	1339	1354	TRUE	
SNU216_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	QGSFSEDVISHK	R	G	95.00%	3.08	0.422	0	1	0	0	2	1,413.60	1823	1834	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	RQGSFSEDVISHK	K	G	95.00%	2.97	0.374	0	0	1	0	2	1,569.71	1822	1834	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	SLLEILNSAADILIINSSEADEDGIRDEK	R	A	95.00%	4.83	0.421	0	0	1	0	2	3,110.48	2839	2866	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	SMDAMSSPTK	K	T	95.00%	2.51	0.412	0	1	0	0	2	1,134.42	2367	2376	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_01	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	SMDAMSSPTKTETVK	K	A	95.00%	2.18	0.279	0	1	0	0	2	1,708.72	2367	2381	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_01	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	2	2	2	0.01%	2.24%	KSPESEILSLHLLVEELR	R	L	95.00%	5.08	0.564	0	0	1	0	2	2,172.13	713	730	TRUE	
SNU216_PC1_01	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	2	2	2	0.01%	2.24%	RDSDSFLNIFPEK	R	Q	95.00%	3.31	0.39	0	1	0	0	2	1,647.74	759	771	TRUE	
SNU216_PC1_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	5.94%	EESEESEAEPVQR	R	T	95.00%	2.57	0.282	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC1_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	5.94%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.62	0.181	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	ADEGKKETSPESSLIQDEIAVK	K	L	95.00%	3.73	0.209	0	0	1	0	2	2,454.17	1147	1168	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	DGSPEAPASPEREEVALSEYK	K	T	95.00%	3.98	0.513	0	1	1	0	2	2,341.02	1345	1365	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	ESQPSPPAQEAGYSTLAQSYPSDLPEEPSSP	K	M	85.30%	5.74	0.0084	0	0	1	0	2	3,739.63	625	658	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	ESVHESIDTMSPMHK	R	N	95.00%	2.98	0.258	0	0	1	0	2	1,807.74	600	614	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	ETSPESSLIQDEIAVK	K	L	95.00%	3.68	0.551	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	GHDLSPLASDILTNTSGSMDEGDDYLPATTI	R	A	88.90%	4.73	0.0539	0	0	1	0	2	3,711.66	721	755	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	4.39	0.434	0	0	1	0	2	2,144.06	275	293	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	RKSVPSETVVEDSR	R	T	95.00%	3.12	0.272	0	0	1	0	2	1,668.80	831	844	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	RPSPHDEEEFEVEEAAEAQAEPK	K	D	95.00%	6.31	0.491	0	0	1	0	2	2,704.14	1322	1344	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.53	0.0838	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	SVPSETVVEDSR	K	T	95.00%	2.25	0.341	0	1	0	0	2	1,384.60	833	844	TRUE	
SNU216_PC1_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	13	13	0.08%	12.20%	VDHGAEIITQSPGR	R	S	95.00%	3.57	0.461	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC1_01	Midasin	IPI00167941	632,826.30	100.00%	4	5	7	0.04%	1.41%	AEENTDQASPQEDYAGFER	K	L	95.00%	4.71	0.555	0	1	1	0	2	2,236.87	4530	4548	TRUE	
SNU216_PC1_01	Midasin	IPI00167941	632,826.30	100.00%	4	5	7	0.04%	1.41%	EDSDTEEQVPEALER	R	K	95.00%	3.17	0.325	0	1	0	0	2	1,826.73	5013	5027	TRUE	
SNU216_PC1_01	Midasin	IPI00167941	632,826.30	100.00%	4	5	7	0.04%	1.41%	MHDGELEEQEEDDEKSDSEGGDLDK	K	H	95.00%	6.07	0.651	0	0	3	0	2	2,916.09	4737	4761	TRUE	
SNU216_PC1_01	Midasin	IPI00167941	632,826.30	100.00%	4	5	7	0.04%	1.41%	NGGEDTDNEEGEEENPLEIK	K	E	95.00%	4.66	0.536	0	1	0	0	2	2,297.89	4893	4912	TRUE	
SNU216_PC1_01	Alpha-taxilin	IPI00470779	61,891.20	99.80%	2	2	2	0.01%	9.16%	RPEGPGAQAPSSPR	R	V	95.00%	2.21	0.271	0	1	0	0	2	1,486.68	504	517	TRUE	
SNU216_PC1_01	Alpha-taxilin	IPI00470779	61,891.20	99.80%	2	2	2	0.01%	9.16%	SSPGQPEAGPEGAQERPSQAAPAVEAEGP	K	K	95.00%	3.86	0.385	0	0	1	0	2	3,564.60	18	53	TRUE	
SNU216_PC1_01	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	6	6	0.04%	1.87%	KQSVFSAPSLSAGASAAEPLDR	R	S	95.00%	4.57	0.57	0	1	1	0	2	2,269.09	932	953	TRUE	
SNU216_PC1_01	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	6	6	0.04%	1.87%	SIQGVGHMMSTMVLSR	R	K	95.00%	3.97	0.421	0	1	1	0	2	1,813.82	916	931	TRUE	
SNU216_PC1_01	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	6	6	0.04%	1.87%	VASFSIPGSSSR	R	Y	95.00%	2.04	0.345	1	1	0	0	2	1,274.58	1830	1841	TRUE	
SNU216_PC1_01	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSSLTNDVAK	K	Q	95.00%	4.52	0.196	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216_PC1_01	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	2.61	0.284	0	1	0	0	2	1,976.86	850	867	TRUE	
SNU216_PC1_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	3	3	0.02%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.77	0.512	0	1	1	0	2	2,816.14	239	264	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	3	3	0.02%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.43	0.463	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216_PC1_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	94.80%	3.29	0.159	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC1_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	4.27	0.49	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC1_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	2.84	0.499	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	3	3	3	0.02%	3.26%	AATTATPAATTSPK	K	E	95.00%	2.38	0.269	0	1	0	0	2	1,368.64	1111	1124	TRUE	
SNU216_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	3	3	3	0.02%	3.26%	IHEKDPNSATATAPPSPLK	K	R	95.00%	2.54	0.27	0	0	1	0	2	2,054.00	146	164	TRUE	
SNU216_PC1_01	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	3	3	3	0.02%	3.26%	VTENGGSPQGIKSPSKPPGPNR	K	I	95.00%	3.08	0.23	0	0	1	0	2	2,284.11	30	51	TRUE	
SNU216_PC1_01	Isoform 2 of Membrane-associated guanylate kin	IPI00165946,IPI00470759,IP	161,609.00	98.50%	1	1	1	0.01%	2.87%	DARPSSPADVASNSSHGYPNDTVSLASSIA	K	G	95.00%	6.75	0.0282	0	0	0	1	2	4,412.14	607	648	TRUE	
SNU216_PC1_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	3	3	0.02%	20.70%	DDGVFVQEVTQNSPAAR	R	T	95.00%	3.56	0.392	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216_PC1_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	3	3	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.95	0.302	0	1	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	98.60%	2	2	2	0.01%	1.52%	SYSSPDITQAIQEEEK	R	R	88.20%	3.21	0.0513	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	98.60%	2	2	2	0.01%	1.52%	SYSSPDITQAIQEEEKR	R	K	88.20%	3.75	0	0	1	0	0	2	2,060.92	716	732	TRUE	
SNU216_PC1_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.40%	2	2	2	0.01%	5.53%	DGLAPEKTSPDRDK	R	K	87.50%	2.24	0.239	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216_PC1_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.40%	2	2	2	0.01%	5.53%	EQSEVSVSPR	K	A	95.00%	2.37	0.264	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216_PC1_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	AEEKSPISINVK	K	T	95.00%	2.85	0.304	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216_PC1_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	EVKAEEKSPISINVK	K	T	95.00%	2.5	0.244	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216_PC1_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	3.67	0.425	0	0	1	0	2	2,591.25	92	117	TRUE	
SNU216_PC1_01	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	3	0.02%	3.07%	GDSNANSDPSPSASEK	K	I	95.00%	2.32	0.207	0	0	1	0	2	1,722.59	511	526	TRUE	
SNU216_PC1_01	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	3	0.02%	3.07%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.42	0.418	0	2	0	0	2	1,606.75	478	493	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	AEEEEASTEEEDKEGAVVSAPSVK	R	G	95.00%	3.41	0.433	0	0	1	0	2	2,680.08	682	705	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	6.82	0.547	0	0	1	0	2	3,418.61	1323	1355	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	AQKEEEEEEEGSPQEEEEEEEEENR	R	A	95.00%	3.87	0.47	0	0	1	0	2	3,130.17	657	681	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	DPTDEGIFISKVSPTGAAGR	R	D	95.00%	4.34	0.543	0	1	0	0	2	2,097.99	1128	1147	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	ELSPEGPGK	R	E	95.00%	1.98	0.326	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.5	0.479	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	95.00%	6.75	0.0295	0	0	1	0	2	4,094.96	1536	1574	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	LPLLPPESPGPLR	R	Q	95.00%	2.38	0.414	0	1	0	0	2	1,465.78	846	858	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	LSPDFAEELR	R	S	95.00%	1.78	0.302	0	1	0	0	2	1,256.56	1565	1574	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	3.36	0.278	0	1	1	0	2	2,609.20	816	837	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	NSLESISSIDR	R	E	95.00%	2.03	0.269	0	1	0	0	2	1,380.54	1219	1229	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	QSPASPPPLGGGAPVR	R	T	95.00%	2.32	0.342	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	RVSLVGADDLRK	K	M	95.00%	2.55	0.334	0	0	1	0	2	1,408.73	1376	1387	TRUE	
SNU216_PC1_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	14	15	15	0.09%	16.50%	SLEPSPSPGPQEEDGEVALVLLGR	R	P	95.00%	2.74	0.4	0	0	1	0	2	2,556.22	1575	1598	TRUE	
SNU216_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	4	4	0.02%	5.27%	KEKTPATTPEAR	K	V	95.00%	1.94	0.283	0	1	0	0	2	1,488.65	1205	1216	TRUE	
SNU216_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	4	4	0.02%	5.27%	KIDTHPSPSHSSTVK	R	D	95.00%	3.74	0.0851	0	1	0	0	2	1,700.80	1336	1350	TRUE	
SNU216_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	4	4	0.02%	5.27%	LYINHTPPPLSKSKER	K	E	91.10%	2.35	0.179	0	0	0	1	2	1,960.01	1363	1378	TRUE	
SNU216_PC1_01	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	4	4	0.02%	5.27%	NAVASVQNGPGGGPSSSSIGSASKSDESST	R	E	83.20%	3.95	0.077	0	0	1	0	2	3,647.59	1118	1154	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	7	9	9	0.06%	41.60%	EDILENEDEQNSPPKK	K	G	95.00%	3.39	0.137	0	1	0	0	2	1,964.85	42	57	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	7	9	9	0.06%	41.60%	KKSGPPAPEEEEEEER	K	Q	95.00%	3.67	0.345	0	0	1	0	2	1,920.82	87	102	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	7	9	9	0.06%	41.60%	LKEDILENEDEQNSPPK	R	K	95.00%	4.12	0.32	0	1	1	0	2	2,077.93	40	56	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	7	9	9	0.06%	41.60%	LKEDILENEDEQNSPPKK	R	G	95.00%	4.98	0.225	0	1	0	0	2	2,206.03	40	57	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	7	9	9	0.06%	41.60%	RGHTASESDEQQWPEEK	K	R	95.00%	3.7	0.29	0	1	1	0	2	2,093.86	22	38	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	7	9	9	0.06%	41.60%	RLKEDILENEDEQNSPPK	K	K	95.00%	5.4	0.414	0	0	1	0	2	2,234.03	39	56	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	7	9	9	0.06%	41.60%	SGPPAPEEEEEEER	K	Q	95.00%	2.09	0.366	0	1	0	0	2	1,664.63	89	102	TRUE	
SNU216_PC1_01	hypothetical protein LOC55215	IPI00019447,IPI00477345	142,574.60	99.80%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	2.07	0.361	0	1	0	0	2	1,170.54	403	412	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	AAKLSEGSQPAEEEEDQETPSR	K	N	95.00%	4.3	0.565	0	1	0	0	2	2,468.05	236	257	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	AESPAEKVPEESVLPLVQK	K	S	95.00%	4.42	0.409	0	1	1	0	2	2,130.07	488	506	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	ASLVALPEQTASEEETPPPLLTK	K	E	95.00%	3.57	0.361	0	1	0	0	2	2,501.24	399	421	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	EASSPPPHPQLHSEEEIEPMEGPAPPVLIQLS	K	E	95.00%	5.52	0.442	0	0	0	1	2	4,490.09	422	462	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.83	0.502	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	ISEDETER	R	N	95.00%	1.81	0.433	1	0	0	0	2	1,058.40	897	904	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	ISEDETERNGDDGTHDK	R	G	86.10%	1.93	0.255	0	1	0	0	2	1,997.77	897	913	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	LSEGSQPAEEEEDQETPSR	K	N	95.00%	3.27	0.449	0	2	0	0	2	2,277.84	239	257	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	6.36	0.462	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.79	0.413	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	TAQVPSPPR	R	G	95.00%	2.23	0.436	0	3	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	TTSPLEEEER	K	E	95.00%	2.01	0.215	0	1	0	0	2	1,270.52	363	372	TRUE	
SNU216_PC1_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	100.00%	13	15	18	0.11%	15.00%	TTSPLEEEEREIK	K	S	94.40%	2	0.248	0	1	0	0	2	1,640.74	363	375	TRUE	
SNU216_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	5	7	0.04%	6.47%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.73	0.36	0	1	3	0	2	2,279.98	667	686	TRUE	
SNU216_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	5	7	0.04%	6.47%	GLAGPPASPGK	K	A	95.00%	2.16	0.471	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	5	7	0.04%	6.47%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.57	0.472	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216_PC1_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	5	7	0.04%	6.47%	KLQLERPVSPETQADLQR	R	N	95.00%	2.88	0.212	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC1_01	glutamyl-prolyl tRNA synthetase	IPI00013452	170,593.20	100.00%	1	1	1	0.01%	1.46%	TGKEYIPGQPPLSQSSDSSPTR	K	N	94.70%	4.02	0.0107	0	1	0	0	2	2,412.11	868	889	TRUE	
SNU216_PC1_01	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	GRNDSGEENVPLDLTR	R	E	95.00%	3.01	0.343	0	1	0	0	2	1,851.82	17	32	TRUE	
SNU216_PC1_01	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	3.1	0.27	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216_PC1_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	99.80%	1	2	2	0.01%	2.77%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	5.8	0.534	0	1	1	0	2	2,697.03	317	338	TRUE	
SNU216_PC1_01	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	4.1	0.525	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216_PC1_01	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	AQNEFKDEAQSLSHSPK	K	R	95.00%	4.22	0.386	0	0	1	0	2	1,995.88	507	523	TRUE	
SNU216_PC1_01	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	RVPTTLSIKPLGAISPVLNR	K	K	95.00%	3.71	0.416	0	0	1	0	2	2,212.26	524	543	TRUE	
SNU216_PC1_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	99.80%	1	1	1	0.01%	2.05%	LDQPVSAPPSPR	K	D	95.00%	2.84	0.308	0	1	0	0	2	1,423.60	235	246	TRUE	
SNU216_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	3	3	3	0.02%	2.17%	AAHVPENSDTEQDVLTVKPVR	R	K	95.00%	5.23	0.599	0	0	1	0	2	2,385.14	1363	1383	TRUE	
SNU216_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	3	3	3	0.02%	2.17%	AAHVPENSDTEQDVLTVKPVRK	R	V	95.00%	3.56	0.398	0	0	0	1	2	2,513.24	1363	1384	TRUE	
SNU216_PC1_01	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	3	3	3	0.02%	2.17%	RHSAQLSSDHIIPLMHLAK	R	D	95.00%	3.54	0.404	0	0	0	1	2	2,234.13	935	953	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	3.94	0.403	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	4.57	0.413	0	1	1	0	2	2,128.94	8	26	TRUE	
SNU216_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	VAHEPVAPPEDKESESEAKVDGETASDSESF	R	A	95.00%	4.72	0.411	0	0	1	1	2	3,362.45	8	38	TRUE	
SNU216_PC1_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	4	7	7	0.04%	6.97%	VDGETASDSESR	K	A	95.00%	2.37	0.517	1	1	0	0	2	1,332.50	27	38	TRUE	
SNU216_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	99.90%	2	3	3	0.02%	2.08%	MGAQQDDGSDAPPGSPDWAGDVTR	R	G	95.00%	4.34	0.584	0	1	0	0	2	2,509.99	605	628	TRUE	
SNU216_PC1_01	Tumor endothelial marker 4	IPI00152007	221,674.00	99.90%	2	3	3	0.02%	2.08%	SLSNPDIASETLTLLSFLR	K	S	95.00%	4.93	0.563	0	1	1	0	2	2,157.08	461	479	TRUE	
SNU216_PC1_01	Transcription repressor	IPI00382733	82,672.30	100.00%	1	1	1	0.01%	2.26%	RGSGDTSISIDTEASIR	R	E	95.00%	3.57	0.193	0	1	0	0	2	1,844.84	86	102	TRUE	
SNU216_PC1_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	2	3	3	0.02%	3.48%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	5.15	0.44	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC1_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	2	3	3	0.02%	3.48%	VSSIDLEIDSLSSLLDDMTK	K	N	95.00%	4.21	0.385	0	1	0	0	2	2,261.05	151	170	TRUE	
SNU216_PC1_01	Jumonji/ARID domain-containing protein 1A	IPI00021363,IPI00619935	195,817.50	99.80%	1	1	1	0.01%	0.58%	VVSSVSSSPR	R	Q	95.00%	2.05	0.343	0	1	0	0	2	1,084.50	1324	1333	TRUE	
SNU216_PC1_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	141,153.50	99.80%	2	2	2	0.01%	3.30%	ETAAGGLTLKEERSPQTLAPVGEDAMK	K	T	95.00%	3.62	0.292	0	0	1	0	2	2,879.39	1230	1256	TRUE	
SNU216_PC1_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	141,153.50	99.80%	2	2	2	0.01%	3.30%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	3.59	0.338	0	0	1	0	2	3,153.39	1243	1271	TRUE	
SNU216_PC1_01	Fatty acid synthase	IPI00026781,IPI00645907	273,427.10	100.00%	2	2	2	0.01%	1.95%	DRDSQRDLVEAVAHILGIR	R	D	95.00%	4.05	0.377	0	0	1	0	2	2,243.13	2120	2138	TRUE	
SNU216_PC1_01	Fatty acid synthase	IPI00026781,IPI00645907	273,427.10	100.00%	2	2	2	0.01%	1.95%	LNSVQSSERPLFLVHPIEGSTTVFHSLASR	R	L	95.00%	4.17	0.257	0	0	0	1	2	3,388.71	2234	2263	TRUE	
SNU216_PC1_01	Novel protein	IPI00397015	168,352.60	99.70%	2	2	2	0.01%	2.50%	LASPQPSYAADANDSK	K	A	84.00%	2.31	0.147	0	1	0	0	2	1,714.73	594	609	TRUE	
SNU216_PC1_01	Novel protein	IPI00397015	168,352.60	99.70%	2	2	2	0.01%	2.50%	SLLDSDDSSDLLDFALSASRPESR	R	K	95.00%	3.02	0.228	0	0	1	0	2	2,676.20	842	865	TRUE	
SNU216_PC1_01	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	203,128.10	100.00%	1	1	1	0.01%	1.65%	LEEGVASDEEAEEAQPGSGPSPEPEGSPPAH	R	-	95.00%	4.4	0.437	0	0	1	0	2	3,391.41	1747	1779	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	10	0.06%	5.09%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	R	95.00%	4.91	0.407	0	0	2	2	2	3,690.75	1093	1125	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	10	0.06%	5.09%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	K	95.00%	3.36	0.32	0	0	0	1	2	3,846.85	1093	1126	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	10	0.06%	5.09%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.04	0.495	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	10	0.06%	5.09%	SSLSGDEEDELFK	R	G	95.00%	2.63	0.375	0	3	0	0	2	1,615.58	1279	1291	TRUE	
SNU216_PC1_01	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	3	3	3	0.02%	6.24%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	5.32	0.434	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216_PC1_01	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	3	3	3	0.02%	6.24%	RLLGPAPEDDGGHNDHSQPQASQDQDSH	R	-	95.00%	5.52	0.421	0	0	0	1	2	3,713.62	1234	1267	TRUE	
SNU216_PC1_01	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	3	3	3	0.02%	6.24%	VLHSSNPVPLYAPNLSPPADSR	K	I	95.00%	4.7	0.45	0	0	1	0	2	2,411.18	558	579	TRUE	
SNU216_PC1_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	3	3	3	0.02%	4.98%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.99	0.575	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216_PC1_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	3	3	3	0.02%	4.98%	SSSPAPEFLASSPPDNK	K	S	95.00%	3.31	0.403	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216_PC1_01	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	3	3	3	0.02%	4.98%	VSAGEPGSHPSPAPR	K	R	95.00%	3.41	0.469	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216_PC1_01	Isoform 7 of Titin	REVERSE_IPI00179357-R,RE	3,734,470.50	99.20%	1	1	1	0.01%	0.04%	MWVGEVSELSVK	K	V	84.80%	2.28	0.181	0	0	1	0	2	1,539.62	31227	31238	TRUE	
SNU216_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	8	10	0.06%	13.80%	DNQESSDAELSSSEYIK	K	T	95.00%	3.96	0.506	0	1	0	0	2	1,981.79	622	638	TRUE	
SNU216_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	8	10	0.06%	13.80%	KPGPSGPSESPK	R	A	95.00%	2.41	0.354	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	8	10	0.06%	13.80%	KPGSGSPDLWKLSPDQR	R	K	95.00%	3.39	0.401	0	0	2	0	2	1,970.88	441	456	TRUE	
SNU216_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	8	10	0.06%	13.80%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.84	0.496	0	0	2	0	2	2,526.21	280	301	TRUE	
SNU216_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	8	10	0.06%	13.80%	KTSPASLDFPESQK	R	S	95.00%	3.53	0.368	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	8	10	0.06%	13.80%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	3.67	0.416	0	1	1	0	2	2,314.11	199	219	TRUE	
SNU216_PC1_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	8	10	0.06%	13.80%	TAPTLSPEHWK	K	A	95.00%	2.25	0.221	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216_PC1_01	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	4.01%	AHSPALGVHSFSGVQR	R	F	95.00%	3.25	0.457	0	0	1	0	2	1,729.82	353	368	TRUE	
SNU216_PC1_01	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	4.01%	FNISSHNQSPK	R	R	94.70%	2.01	0.217	0	1	0	0	2	1,338.58	369	379	TRUE	
SNU216_PC1_01	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	4.01%	LLGSLDEVVLLSPVPELRDSSK	K	L	95.00%	3.25	0.25	0	0	1	0	2	2,446.28	544	565	TRUE	
SNU216_PC1_01	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	4	4	4	0.02%	4.01%	QLQPASELWSSDGAAGLVGSLQEVTIHEK	R	Q	95.00%	4.85	0.536	0	0	1	0	2	3,130.51	41	69	TRUE	
SNU216_PC1_01	Leukemia virus receptor 2	IPI00009504	70,393.40	100.00%	1	2	2	0.01%	2.76%	VSDESLSKVQEAESPVFK	R	E	95.00%	2.69	0.311	0	1	1	0	2	2,138.93	255	272	TRUE	
SNU216_PC1_01	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	3	3	0.02%	2.07%	IIPELVGSPTQSTSSR	K	T	91.30%	2.89	0.0998	0	1	0	0	2	1,751.86	1468	1483	TRUE	
SNU216_PC1_01	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	3	3	0.02%	2.07%	LKAESISEEADSEPGR	K	S	95.00%	2.67	0.172	0	1	0	0	2	1,877.76	1782	1797	TRUE	
SNU216_PC1_01	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	3	3	0.02%	2.07%	RLSLDIQSPPNIGLR	R	R	95.00%	2.44	0.405	0	1	0	0	2	1,758.93	694	708	TRUE	
SNU216_PC1_01	heterogeneous nuclear ribonucleoprotein A1 isof	IPI00215965	38,747.00	99.90%	1	1	1	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	1.92	0.352	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.41	0.443	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	GSPTSAYPER	K	K	95.00%	2.15	0.423	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	GSPVPPVPER	R	R	93.90%	1.83	0.258	0	1	0	0	2	1,114.53	913	922	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	HGSDPAFAPGPR	R	G	95.00%	2.94	0.522	0	1	1	0	2	1,288.55	521	532	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	KGSPTPGFSTR	R	R	89.70%	2.09	0.193	0	1	0	0	2	1,214.56	879	889	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	RGSPTTGFIEQK	R	G	81.10%	2.67	0.0868	0	1	0	0	2	1,400.66	890	901	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	3.24	0.218	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	3.33	0.268	0	0	1	0	2	2,639.07	4	25	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	RSSPVPPVPERR	R	G	95.00%	2.66	0.278	0	0	1	0	2	1,456.74	923	934	TRUE	
SNU216_PC1_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	11	11	0.07%	12.30%	SSPVPPVPER	R	R	95.00%	2	0.219	0	1	0	0	2	1,144.54	924	933	TRUE	
SNU216_PC1_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.02%	12.30%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.51	0.459	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216_PC1_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.02%	12.30%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.84	0.533	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC1_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.02%	12.30%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.43	0.334	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	KISGTTALQEALK	R	E	95.00%	3.02	0.404	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	SPSASSLSSMSSVASSVSSR	R	P	95.00%	4.68	0.0463	0	1	0	0	2	1,980.86	310	329	TRUE	
SNU216_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	SPSASSLSSMSSVASSVSSRPSR	R	T	95.00%	2.91	0.453	0	0	1	0	2	2,321.04	310	332	TRUE	
SNU216_PC1_01	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	4	0.02%	3.64%	TASESISNLSEAGSIK	K	K	94.90%	2.76	0.138	0	1	0	0	2	1,673.76	191	206	TRUE	
SNU216_PC1_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.80%	2	3	3	0.02%	4.40%	GISPIVFDR	R	S	95.00%	1.63	0.285	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216_PC1_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.80%	2	3	3	0.02%	4.40%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	3.91	0.427	0	0	1	1	2	2,465.14	415	437	TRUE	
SNU216_PC1_01	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	3	3	3	0.02%	3.19%	AKPVVSDFDSDEEQDER	K	E	95.00%	2.97	0.339	0	1	0	0	2	2,045.83	1563	1579	TRUE	
SNU216_PC1_01	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	3	3	3	0.02%	3.19%	GRPPAEKLSPNPPK	R	L	95.00%	2.89	0.343	0	0	1	0	2	1,567.80	1369	1382	TRUE	
SNU216_PC1_01	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	3	3	3	0.02%	3.19%	ISPIQKPQGLDPVEILQER	R	E	95.00%	3.68	0.557	0	0	1	0	2	2,240.17	328	346	TRUE	
SNU216_PC1_01	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.70%	QIDSSEEDDDEEDYDNDKR	R	S	95.00%	3.35	0.515	0	0	1	0	2	2,476.82	212	230	TRUE	
SNU216_PC1_01	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	2	2	0.01%	1.70%	SPFEHSVEHK	R	S	95.00%	2.59	0.178	0	0	1	0	2	1,276.54	1689	1698	TRUE	
SNU216_PC1_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	90,765.90	100.00%	3	4	4	0.02%	5.40%	IGSDPLAYEPK	R	E	95.00%	1.95	0.252	0	0	1	0	2	1,269.58	701	711	TRUE	
SNU216_PC1_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	90,765.90	100.00%	3	4	4	0.02%	5.40%	LDSPTMSR	K	A	95.00%	1.9	0.354	0	1	0	0	2	986.4014	691	698	TRUE	
SNU216_PC1_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	90,765.90	100.00%	3	4	4	0.02%	5.40%	SKETSSPGTDDVFTPAPSDSPSSQR	R	I	95.00%	5.41	0.502	0	1	1	0	2	2,660.14	766	790	TRUE	
SNU216_PC1_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	1.63%	AQGEPVAGHESPK	R	I	95.00%	3.02	0.42	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216_PC1_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	1.63%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.15	0.482	0	1	0	0	2	2,016.94	789	806	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Diacylglycerol O-acyltransferase 1	IPI00015799,IPI00735571,IP	55,280.00	100.00%	1	1	1	0.01%	4.30%	TGSRPSSHGGGGPAAAEEEVR	R	D	95.00%	3.29	0.316	0	0	1	0	2	2,088.91	12	32	TRUE	
SNU216_PC1_01	Protein capicua homolog	IPI00045360	163,789.70	99.70%	1	1	1	0.01%	0.75%	SSPPLPPPAEER	R	T	95.00%	2.01	0.271	0	1	0	0	2	1,356.62	1245	1256	TRUE	
SNU216_PC1_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	2	2	2	0.01%	3.82%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	3.48	0.227	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216_PC1_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	2	2	2	0.01%	3.82%	GLVAAYSGESDSEEEQER	R	G	95.00%	4.06	0.412	0	1	0	0	2	2,035.81	792	809	TRUE	
SNU216_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	7	8	8	0.05%	7.87%	AGAEDDEEKGEGTPR	K	E	95.00%	2.59	0.489	0	1	0	0	2	1,640.64	150	164	TRUE	
SNU216_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	7	8	8	0.05%	7.87%	AGAEDDEEKGEGTPREEGK	K	A	95.00%	2.18	0.408	0	1	0	0	2	2,083.85	150	168	TRUE	
SNU216_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	7	8	8	0.05%	7.87%	ASDLEDEESAAR	R	G	95.00%	2.34	0.388	0	1	0	0	2	1,372.53	45	56	TRUE	
SNU216_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	7	8	8	0.05%	7.87%	DSGSDQDLDGAGVRASDLEDEESAAR	R	G	95.00%	3.68	0.312	0	0	1	0	2	2,745.11	31	56	TRUE	
SNU216_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	7	8	8	0.05%	7.87%	GPSQEEEDNHSDEEDR	R	A	95.00%	3.75	0.548	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	7	8	8	0.05%	7.87%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	3.72	0.377	0	1	1	0	2	2,464.94	57	77	TRUE	
SNU216_PC1_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	7	8	8	0.05%	7.87%	LGVSVSPSR	K	A	95.00%	2.67	0.259	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	4	5	6	0.04%	3.04%	AKPVVSDDDSEEEQEEDR	R	S	95.00%	3.7	0.577	0	2	0	0	2	2,236.82	1654	1671	TRUE	
SNU216_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	4	5	6	0.04%	3.04%	KIPDPDSDDVSEVDAR	K	H	95.00%	3.46	0.444	0	1	0	0	2	1,837.79	689	704	TRUE	
SNU216_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	4	5	6	0.04%	3.04%	KKIPDPDSDDVSEVDAR	K	H	95.00%	2.51	0.387	0	1	0	0	2	2,045.85	688	704	TRUE	
SNU216_PC1_01	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	4	5	6	0.04%	3.04%	KRDSDAGSSTPTTSTR	R	S	95.00%	3.08	0.381	0	1	1	0	2	1,746.77	1446	1461	TRUE	
SNU216_PC1_01	Kinesin family member 1B	IPI00029011,IPI00216252,IP	204,480.50	99.80%	1	2	2	0.01%	1.26%	GDSLILEHQWELEKLELLHEVEK	R	T	95.00%	3.49	0.401	0	0	1	1	2	2,867.42	1485	1507	TRUE	
SNU216_PC1_01	E1A-associated protein p300	IPI00020985	264,138.50	99.80%	2	2	2	0.01%	1.24%	STELKTEIKEEEEDQPSTSATQSSPAPGQSK	R	K	95.00%	7.13	0.0518	0	0	1	0	2	3,270.49	1016	1045	TRUE	
SNU216_PC1_01	E1A-associated protein p300	IPI00020985	264,138.50	99.80%	2	2	2	0.01%	1.24%	TEIKEEEDQPSTSATQSSPAPGQSK	K	K	95.00%	4.24	0.0185	0	1	0	0	2	2,712.19	1021	1045	TRUE	
SNU216_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	5	5	0.03%	1.84%	GLTAQIQSFGRSMSSLQNSR	K	D	87.40%	3.04	0.194	0	0	1	0	2	2,344.02	2728	2747	TRUE	
SNU216_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	5	5	0.03%	1.84%	LSGLANVVLHELSGDDDTDQNMR	R	A	95.00%	2.54	0.44	0	1	1	0	2	2,579.14	5	27	TRUE	
SNU216_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	5	5	0.03%	1.84%	SAAQPSTSPAEVQSLK	R	K	95.00%	2.68	0.333	0	1	0	0	2	1,680.78	2865	2880	TRUE	
SNU216_PC1_01	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	4	5	5	0.03%	1.84%	SAAQPSTSPAEVQSLKK	R	A	95.00%	2.87	0.25	0	1	0	0	2	1,808.88	2865	2881	TRUE	
SNU216_PC1_01	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	4	0.02%	2.84%	YSPTSPTYSPTSPVYTPTSPK	K	Y	95.00%	4.2	0.0028	0	2	0	0	2	2,338.05	1890	1910	TRUE	
SNU216_PC1_01	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	4	0.02%	2.84%	YSPTSPTYSPTTPK	K	Y	95.00%	2.88	0.428	0	1	0	0	2	1,606.70	1876	1889	TRUE	
SNU216_PC1_01	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	3	3	4	0.02%	2.84%	YTPTSPSYSPSSPEYTPTSPK	K	Y	91.80%	3.86	0.0352	0	1	0	0	2	2,354.01	1841	1861	TRUE	
SNU216_PC1_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	99.50%	2	2	2	0.01%	3.32%	AYTPVVVTLWYR	K	A	95.00%	2.53	0.382	0	1	0	0	2	1,547.77	593	604	TRUE	
SNU216_PC1_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	99.50%	2	2	2	0.01%	3.32%	DLLSDLQDISDSER	R	K	89.00%	2.81	0.092	0	1	0	0	2	1,685.73	274	287	TRUE	
SNU216_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	6	6	0.04%	4.60%	EYGSTSSIDK	R	Q	94.90%	1.88	0.272	0	1	0	0	2	1,166.46	205	214	TRUE	
SNU216_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	6	6	0.04%	4.60%	FHALSSPQSPFPSTPTSR	K	R	95.00%	2.78	0.212	0	0	1	0	2	2,023.93	1560	1577	TRUE	
SNU216_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	6	6	0.04%	4.60%	LIDLESPTPESQK	K	S	95.00%	2.71	0.323	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	6	6	0.04%	4.60%	QDPVVHLSPNK	R	Q	95.00%	3.11	0.301	0	1	0	0	2	1,313.63	1263	1273	TRUE	
SNU216_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	6	6	0.04%	4.60%	RLSPGSDIYVTVSSMALAR	R	S	95.00%	3.92	0.506	0	0	1	0	2	2,103.03	1125	1143	TRUE	
SNU216_PC1_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	6	6	0.04%	4.60%	TLSDESIYNSQR	R	E	95.00%	2.87	0.353	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216_PC1_01	Isoform 1 of Rap guanine nucleotide exchange fa	IPI00008865,IPI00291839,IP	157,499.50	99.70%	2	2	2	0.01%	1.75%	LPEGPVDSEDDEEEEDEEIDR	R	T	95.00%	4.9	0.627	0	1	0	0	2	2,396.91	223	242	TRUE	
SNU216_PC1_01	Isoform 1 of Rap guanine nucleotide exchange fa	IPI00008865,IPI00291839,IP	157,499.50	99.70%	2	2	2	0.01%	1.75%	RSSLLNAK	R	K	94.00%	2.24	0.2	0	1	0	0	2	968.4925	1092	1099	TRUE	
SNU216_PC1_01	SNW domain-containing protein 1	IPI00013830	61,495.90	99.10%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	2.71	0.326	0	4	1	0	2	1,673.69	221	235	TRUE	
SNU216_PC1_01	SNW domain-containing protein 1	IPI00013830	61,495.90	99.10%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSRK	R	M	81.80%	2.62	0.222	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216_PC1_01	Isoform 1 of Adenylate cyclase type 6	IPI00011938,IPI00220444	124,868.10	99.50%	2	2	2	0.01%	2.05%	ANSMEGLMPR	R	W	95.00%	2.07	0.232	0	1	0	0	2	1,185.48	574	583	TRUE	
SNU216_PC1_01	Isoform 1 of Adenylate cyclase type 6	IPI00011938,IPI00220444	124,868.10	99.50%	2	2	2	0.01%	2.05%	DAEPPSPTPAGPPR	R	C	89.90%	2.2	0.179	0	1	0	0	2	1,468.65	49	62	TRUE	
SNU216_PC1_01	DNA polymerase alpha catalytic subunit	IPI00220317,IPI00647655	165,917.30	99.90%	1	2	2	0.01%	1.44%	SIGASPNPFSVHTATAVPSGK	R	I	95.00%	3.7	0.482	0	1	1	0	2	2,105.01	186	206	TRUE	
SNU216_PC1_01	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	NRPDSGVEEAWK	R	I	95.00%	3.34	0.453	0	1	0	0	2	1,467.63	883	894	TRUE	
SNU216_PC1_01	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	SIVVIHPDTGR	R	E	95.00%	3.01	0.218	0	1	0	0	2	1,273.63	1657	1667	TRUE	
SNU216_PC1_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.40%	IKSSPSPEVVKPK	K	I	95.00%	3.38	0.364	0	1	0	0	2	1,555.75	636	648	TRUE	
SNU216_PC1_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.40%	LHKRSPPPETIK	K	S	93.10%	2.48	0.171	0	0	1	0	2	1,482.78	613	624	TRUE	
SNU216_PC1_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.40%	LTPPESQSPLHWLADLAEQK	K	A	95.00%	3.18	0.308	0	0	1	0	2	2,340.13	2000	2019	TRUE	
SNU216_PC1_01	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.40%	TSPLVSQNNEQGSTLR	R	D	95.00%	3.38	0.252	0	1	0	0	2	1,810.83	2052	2067	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	AQSYDIQAWK	R	K	95.00%	2.55	0.319	0	1	0	0	2	1,289.56	1313	1322	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	AQSYDIQAWKK	R	Q	95.00%	2.31	0.336	0	1	0	0	2	1,417.65	1313	1323	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	GSISSTSEVHSPPNVGLR	R	R	95.00%	2.41	0.278	0	0	1	0	2	1,903.89	673	690	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	KVLSDSEDEEKDADVPGTSTR	K	K	95.00%	4.13	0.345	0	1	0	0	2	2,438.00	1278	1298	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	KVNEEKDGPISPK	K	K	95.00%	2.91	0.262	0	1	0	0	2	1,520.74	901	913	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	RTAFYNEDDSEEEQR	R	Q	95.00%	2.54	0.29	0	1	0	0	2	1,968.76	1774	1788	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	TAFYNEDDSEEEQR	R	Q	95.00%	3.38	0.468	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	4.01	0.438	0	1	0	0	2	2,309.91	1279	1298	TRUE	
SNU216_PC1_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	9	9	9	0.06%	4.28%	VNEEKDGPISPK	K	K	95.00%	2.22	0.227	0	1	0	0	2	1,392.64	902	913	TRUE	
SNU216_PC1_01	Ferritin heavy chain	IPI00554521	21,095.00	100.00%	1	1	1	0.01%	14.30%	KMGAPESGLAEYLFDKHTLGDSDNES	R	-	95.00%	3.9	0.322	0	0	1	0	2	2,891.24	157	182	TRUE	
SNU216_PC1_01	Cytoskeleton-associated protein 5	IPI00028275,IPI00472887	225,515.80	100.00%	1	1	1	0.01%	1.38%	HSTSGTDEGEDGDEPDDGSNDVVDLLPR	K	T	85.30%	5.38	0.021	0	0	1	0	2	3,008.19	827	854	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase MRCK beta	IPI00477763	194,318.00	100.00%	1	2	3	0.02%	1.23%	HSTPSNSSNPSGPPSPNSPHR	K	S	95.00%	6.09	0.465	0	1	2	0	2	2,220.94	1676	1696	TRUE	
SNU216_PC1_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	99.80%	2	3	3	0.02%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	4.25	0.462	0	1	1	0	2	2,051.83	68	85	TRUE	
SNU216_PC1_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	99.80%	2	3	3	0.02%	5.07%	NEEDEGHSNSSPR	K	H	95.00%	1.8	0.291	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	3	3	3	0.02%	1.61%	LDVTILSPSR	K	K	95.00%	2.96	0.187	0	1	0	0	2	1,180.60	977	986	TRUE	
SNU216_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	3	3	3	0.02%	1.61%	LVSPGSANETSSILVESVTR	R	S	95.00%	4.43	0.555	0	1	0	0	2	2,126.04	2452	2471	TRUE	
SNU216_PC1_01	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	3	3	3	0.02%	1.61%	YADEEIPRSPFK	K	V	95.00%	3.03	0.237	0	1	0	0	2	1,531.68	1497	1508	TRUE	
SNU216_PC1_01	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	5	6	0.04%	1.95%	DPGLEPGPDSPGGSSPPR	K	R	95.00%	3.23	0.348	0	2	0	0	2	1,798.76	963	980	TRUE	
SNU216_PC1_01	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	5	6	0.04%	1.95%	DPGLEPGPDSPGGSSPPRR	K	Q	95.00%	2.35	0.308	0	1	1	0	2	1,954.87	963	981	TRUE	
SNU216_PC1_01	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	5	6	0.04%	1.95%	SGSEEAVTDPGER	R	E	95.00%	2.53	0.402	0	1	0	0	2	1,413.55	1200	1212	TRUE	
SNU216_PC1_01	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	5	6	0.04%	1.95%	TASELLLDR	R	R	91.80%	1.68	0.253	0	1	0	0	2	1,097.52	1225	1233	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	100.00%	3	3	3	0.02%	2.88%	ASPVTSPAAAFPTASPANK	K	D	95.00%	2.43	0.217	0	1	0	0	2	1,864.88	498	516	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	100.00%	3	3	3	0.02%	2.88%	IMEETSGMEEEEEEEESIAAVPGR	R	R	95.00%	4.68	0.576	0	1	0	0	2	2,632.07	1049	1071	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	100.00%	3	3	3	0.02%	2.88%	QPSSPSHNTNLR	R	A	95.00%	2.32	0.249	0	1	0	0	2	1,417.62	135	146	TRUE	
SNU216_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	8	10	0.06%	5.69%	EIQNGNLHESDSESVPR	K	D	95.00%	2.75	0.267	0	1	1	0	2	2,070.82	66	82	TRUE	
SNU216_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	8	10	0.06%	5.69%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.87	0.33	0	0	2	0	2	2,247.04	64	82	TRUE	
SNU216_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	8	10	0.06%	5.69%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.52	0.419	0	0	1	0	2	2,241.15	142	162	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	8	10	0.06%	5.69%	QKTENVFVDEPLIHATTYIPLMDNADSSPV\	K	E	95.00%	5.73	0.374	0	0	0	1	2	3,922.89	216	249	TRUE	
SNU216_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	8	10	0.06%	5.69%	QPTPPSEAAASK	K	K	95.00%	2.58	0.325	0	2	0	0	2	1,263.56	151	162	TRUE	
SNU216_PC1_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	8	10	0.06%	5.69%	TENVFVDEPLIHATTYIPLMDNADSSPVVDK	K	E	95.00%	5.04	0.516	0	0	1	1	2	3,666.74	218	249	TRUE	
SNU216_PC1_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	5	6	0.04%	6.57%	DSSKGEDSAEETEAK	R	P	95.00%	2.83	0.423	0	1	0	0	2	1,662.64	475	489	TRUE	
SNU216_PC1_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	5	6	0.04%	6.57%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	5.02	0.438	0	0	1	0	2	4,118.93	479	519	TRUE	
SNU216_PC1_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	5	6	0.04%	6.57%	PMEEDGEEKSPSK	R	K	95.00%	2.73	0.315	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216_PC1_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	5	6	0.04%	6.57%	RPMEEDGEEKSPSK	K	K	95.00%	3.62	0.48	0	1	2	0	2	1,698.70	372	385	TRUE	
SNU216_PC1_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	2	2	2	0.01%	3.35%	FPPEDFRHSPEDFR	R	R	95.00%	2.8	0.24	0	0	1	0	2	1,855.78	567	580	TRUE	
SNU216_PC1_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	2	2	2	0.01%	3.35%	SRSPLGFYVHLK	R	N	95.00%	3.33	0.396	0	0	1	0	2	1,483.75	278	289	TRUE	
SNU216_PC1_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	4	6	0.04%	4.47%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	3.37	0.744	0	1	1	0	2	2,580.79	423	442	TRUE	
SNU216_PC1_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	4	6	0.04%	4.47%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.81	0.124	0	2	0	0	2	2,020.86	302	320	TRUE	
SNU216_PC1_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	4	6	0.04%	4.47%	SSLGQSASETEEDTVSVSKK	R	E	92.70%	3.24	0.069	0	2	0	0	2	2,148.95	302	321	TRUE	
SNU216_PC1_01	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	5	6	6	0.04%	0.96%	AEPSPQSWSSLWK	K	H	95.00%	2.06	0.262	0	1	0	0	2	1,582.69	4133	4145	TRUE	
SNU216_PC1_01	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	5	6	6	0.04%	0.96%	EASENETDMEDPR	K	E	95.00%	2.67	0.368	0	1	0	0	2	1,602.56	6359	6371	TRUE	
SNU216_PC1_01	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	5	6	6	0.04%	0.96%	QQSVESLAEEVK	K	D	95.00%	2.99	0.233	0	1	0	0	2	1,426.65	2779	2790	TRUE	
SNU216_PC1_01	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	5	6	6	0.04%	0.96%	RGSMSYLAAVEEEVEESSVK	R	S	95.00%	6.09	0.576	0	1	1	0	2	2,280.01	4106	4125	TRUE	
SNU216_PC1_01	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	5	6	6	0.04%	0.96%	TLKASSGK	K	S	95.00%	2.1	0.313	0	1	0	0	2	871.4286	6462	6469	TRUE	
SNU216_PC1_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	99.80%	2	2	2	0.01%	2.91%	EVLDEDTDEEKETLK	K	N	95.00%	3.88	0.383	0	1	0	0	2	1,872.80	918	932	TRUE	
SNU216_PC1_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	99.80%	2	2	2	0.01%	2.91%	NSDMHLLDLESMGK	R	S	95.00%	2.69	0.326	0	1	0	0	2	1,669.70	287	300	TRUE	
SNU216_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	9	9	0.06%	9.30%	APEGDDFLSLHAESDGEGALQVDLGEPAPA	R	W	95.00%	4.58	0.488	0	0	1	0	2	3,781.69	440	476	TRUE	
SNU216_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	9	9	0.06%	9.30%	EVLYDSEGLSGEER	R	G	95.00%	2.2	0.288	0	1	0	0	2	1,742.66	729	742	TRUE	
SNU216_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	9	9	0.06%	9.30%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	3.41	0.396	0	1	1	0	2	2,741.18	225	247	TRUE	
SNU216_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	9	9	0.06%	9.30%	GAEETSWSGEER	K	A	95.00%	2.49	0.317	0	1	0	0	2	1,417.53	958	969	TRUE	
SNU216_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	9	9	0.06%	9.30%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.11	0.361	0	1	1	0	2	2,048.01	496	516	TRUE	
SNU216_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	9	9	0.06%	9.30%	SASPPPATSSSSSSR	R	R	95.00%	2.1	0.294	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216_PC1_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	7	9	9	0.06%	9.30%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	2.77	0.198	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	AAFGISDSYVDGSSFDPQR	R	R	95.00%	3.79	0.429	0	1	0	0	2	2,098.88	137	155	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	AGMSSNQSISSPVLDAVPR	K	T	95.00%	3.82	0.491	0	3	0	0	2	2,011.92	1394	1412	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	AGMSSNQSISSPVLDAVPRTPSR	K	E	95.00%	4.62	0.415	0	1	1	0	2	2,437.15	1394	1416	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	AGMSSNQSISSPVLDAVPRTPSRER	K	S	95.00%	4.03	0.235	0	0	2	0	2	2,882.23	1394	1418	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	AQTPPGPSLSGSK	K	S	94.50%	2.03	0.227	0	1	0	0	2	1,306.60	1001	1013	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	DGLPRTPSR	K	R	95.00%	1.97	0.365	0	1	0	0	2	1,078.50	1429	1437	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	DKFSPFPVQDRPESSLVFK	K	D	95.00%	4.01	0.348	0	0	2	0	2	2,303.11	1185	1203	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	DRSPPKSPEK	R	L	95.00%	2.79	0.229	0	0	2	0	2	1,220.57	402	411	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.42	0.44	0	1	4	0	2	2,259.04	1316	1334	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	ENSFGSPLEFR	R	N	95.00%	2.67	0.414	0	1	0	0	2	1,362.57	1324	1334	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	EQNSALPTSSQDEELMEVVEK	K	S	95.00%	4.69	0.521	0	1	1	0	2	2,443.06	1224	1244	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	FQSDSSSYPTVDSNSLLGQSR	R	L	95.00%	4.2	0.0587	0	1	0	0	2	2,355.01	1138	1158	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	3.42	0.121	0	2	0	0	2	2,795.14	304	329	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.13	0.202	0	1	1	1	2	1,976.90	433	451	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.84	0.474	0	1	2	1	2	2,932.38	374	401	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	HSLSGSSPGMKDIPR	R	T	84.90%	1.92	0.23	0	1	0	0	2	1,744.71	1457	1471	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	MALPPQEDATASPPR	K	Q	95.00%	2.91	0.432	0	6	2	0	2	1,660.74	1168	1182	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	MALPPQEDATASPPRQK	K	D	95.00%	3.2	0.166	0	0	1	0	2	1,916.89	1168	1184	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	NHSGSRTPPVALNSSR	R	M	95.00%	2.35	0.299	0	1	0	0	2	1,919.76	2098	2113	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	PASPKKPPPGER	K	R	95.00%	2.11	0.245	0	0	1	0	2	1,340.67	2662	2673	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	QGSITSPQANEQSVTPQR	R	R	95.00%	3.61	0.543	0	2	0	0	2	2,007.91	852	869	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	QGSITSPQANEQSVTPQRR	R	S	95.00%	3.89	0.316	0	0	1	0	2	2,164.01	852	870	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	QPSSPYEDKDK	K	D	95.00%	2.7	0.263	0	1	0	0	2	1,373.56	330	340	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	QPSSPYEDKDKDK	K	K	95.00%	3.59	0.41	0	1	1	0	2	1,616.68	330	342	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	QSHSESPSLQSK	R	S	95.00%	3.02	0.357	0	1	0	0	2	1,394.59	1078	1089	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	RSPSVSSPEPAEK	R	S	95.00%	2.83	0.206	0	2	0	0	2	1,450.66	1726	1738	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	RVPSPTPAPK	K	E	92.50%	2.3	0.188	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SAHATAPVNIAGSR	R	T	95.00%	2.29	0.265	0	1	0	0	2	1,431.67	2343	2356	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SATRPSPSPER	K	S	95.00%	1.58	0.219	1	0	0	0	2	1,344.53	346	356	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SGSSPEVKDKPR	R	A	83.60%	1.77	0.239	0	1	0	0	2	1,446.60	1598	1609	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SGSSQELDVKPSASPQER	R	S	95.00%	3.66	0.346	0	4	2	0	2	1,981.89	1539	1556	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SLSYSPVER	R	R	92.20%	1.67	0.258	0	2	0	0	2	1,197.46	2690	2698	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SPGMLEPLGSSR	R	T	95.00%	2.13	0.267	0	1	0	0	2	1,310.58	2132	2143	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SPSSPELNNK	R	C	95.00%	2.23	0.297	0	1	0	0	2	1,152.49	1499	1508	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SPSVSSPEPAEK	R	S	95.00%	2.21	0.354	0	1	0	0	2	1,294.56	1727	1738	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SPVPSAFSDQSR	R	C	95.00%	2.36	0.322	0	1	0	0	2	1,357.58	2449	2460	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SRSGSSQELDVKPSASPQER	R	S	87.50%	4.47	0.0468	0	0	1	0	2	2,304.99	1537	1556	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SRSPSSPELNNK	R	C	93.60%	2.36	0.159	0	2	0	0	2	1,555.56	1497	1508	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SRSSSPVTELASR	R	S	94.30%	2.34	0.217	0	1	0	0	2	1,616.61	1099	1111	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SRTSPAPWK	R	R	95.00%	2.25	0.195	0	1	0	0	2	1,109.51	1854	1862	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SSGHSSSELSPDAVEK	R	A	95.00%	3.39	0.334	0	4	0	0	2	1,696.71	1378	1393	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SSSPVTELASR	R	S	87.90%	1.5	0.107	1	1	0	0	2	1,293.51	1101	1111	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SSTGPEPPAPTPLLAER	R	H	95.00%	2.32	0.407	0	1	0	0	2	1,799.86	357	373	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	SSTPPGESYFGVSSLQLK	K	G	91.10%	3.66	0.0205	0	1	0	0	2	1,963.91	1041	1058	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	THTTALAGRSPSPASGR	K	R	95.00%	2.42	0.332	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	TPAAAAAMNLASPR	R	T	95.00%	4.34	0.484	0	1	0	0	2	1,421.66	2261	2274	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	TPPVALNSSR	R	M	95.00%	2.05	0.241	0	1	0	0	2	1,121.54	2104	2113	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	TSPAPWK	R	R	89.40%	1.42	0.295	0	1	0	0	2	866.3809	1856	1862	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	TSPPLLDR	R	A	95.00%	1.46	0.367	0	1	0	0	2	978.4658	2397	2404	TRUE	
SNU216_PC1_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	50	61	88	0.55%	20.80%	VKAQTPPGPSLSGSK	K	S	95.00%	2.2	0.262	0	1	0	0	2	1,533.77	999	1013	TRUE	
SNU216_PC1_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.90%	2	2	2	0.01%	4.07%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	4.02	0.529	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216_PC1_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.90%	2	2	2	0.01%	4.07%	GLWSTDSAEEDKETK	R	R	94.40%	2.75	0.171	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216_PC1_01	Absent in melanoma 1-like	IPI00017443	50,983.70	100.00%	3	3	3	0.02%	6.83%	DVPSPGGLSAPSSPR	K	N	95.00%	3.41	0.474	0	1	0	0	2	1,503.68	429	443	TRUE	
SNU216_PC1_01	Absent in melanoma 1-like	IPI00017443	50,983.70	100.00%	3	3	3	0.02%	6.83%	MVPPVVVGSPPGSPSR	R	S	89.80%	2.19	0.222	0	1	0	0	2	1,722.77	216	231	TRUE	
SNU216_PC1_01	Absent in melanoma 1-like	IPI00017443	50,983.70	100.00%	3	3	3	0.02%	6.83%	RKDVPSPGGLSAPSSPR	R	N	95.00%	5.07	0.432	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216_PC1_01	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	99.90%	2	2	2	0.01%	2.19%	RPEPSTLENITDDKYATVSSPSK	K	S	86.20%	4.56	0.0494	0	0	1	0	2	2,615.22	461	483	TRUE	
SNU216_PC1_01	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	99.90%	2	2	2	0.01%	2.19%	YATVSSPSK	K	S	82.90%	1.1	0.196	1	0	0	0	2	1,019.44	475	483	TRUE	
SNU216_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	6	6	0.04%	4.45%	RSSGFISELPSEEGK	K	K	95.00%	4.53	0.492	0	1	1	0	2	1,702.77	185	199	TRUE	
SNU216_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	6	6	0.04%	4.45%	SNDSGEEAEKEFIFV	K	-	95.00%	2.52	0.227	0	1	0	0	2	1,780.73	531	545	TRUE	
SNU216_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	6	6	0.04%	4.45%	SSGFISELPSEEGK	R	K	95.00%	2.87	0.319	0	1	0	0	2	1,546.67	186	199	TRUE	
SNU216_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	6	6	0.04%	4.45%	SWGQQAQEYQEQK	R	Q	95.00%	3.1	0.329	0	1	0	0	2	1,689.69	505	517	TRUE	
SNU216_PC1_01	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	6	6	0.04%	4.45%	TASRPDDIPDSPSSPK	R	V	95.00%	3.51	0.461	0	1	0	0	2	1,749.77	452	467	TRUE	
SNU216_PC1_01	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.80%	2	2	2	0.01%	5.70%	GSIDREDGSLQGPIGNQHIYQPVGKPDPAA	R	K	95.00%	4.16	0.201	0	0	0	1	2	3,518.71	842	874	TRUE	
SNU216_PC1_01	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.80%	2	2	2	0.01%	5.70%	QATVSWDSGGSDEAPPKPSRPGYPSPR	R	S	95.00%	2.87	0.255	0	0	1	0	2	2,906.31	698	724	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.27%	AGSSPAQGAQNEPPR	K	L	95.00%	2.94	0.6	0	2	0	0	2	1,546.66	556	570	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.27%	GNASPGAATHDSLSDYGPQDSRPTPMR	R	R	95.00%	3.5	0.324	0	0	1	0	2	2,865.23	963	989	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.27%	LNASPAAR	R	E	95.00%	1.67	0.315	0	1	0	0	2	879.4084	571	578	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.27%	QLSGQSTSSDTTYK	R	G	95.00%	3.06	0.359	0	1	0	0	2	1,582.66	536	549	TRUE	
SNU216_PC1_01	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	1	1	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	6.2	0.435	0	0	1	0	2	3,106.31	797	824	TRUE	
SNU216_PC1_01	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGR	K	P	95.00%	2.66	0.306	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216_PC1_01	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	3.09	0.303	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216_PC1_01	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RSPSPYYSR	R	D	92.40%	2.16	0.156	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	6	0.04%	3.82%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.6	0.454	0	2	1	0	2	2,422.92	1355	1377	TRUE	
SNU216_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	6	0.04%	3.82%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	3.79	0.354	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216_PC1_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	5	6	0.04%	3.82%	SGSPGSSSSYEHYESR	R	K	93.20%	3.31	0.0654	0	0	1	0	2	1,709.64	1093	1107	TRUE	
SNU216_PC1_01	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	100.00%	2	3	3	0.02%	0.70%	LSTSPPPPAIAVPLLEMGFSLR	R	Q	95.00%	3.6	0.501	0	1	1	0	2	2,373.23	2744	2765	TRUE	
SNU216_PC1_01	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	100.00%	2	3	3	0.02%	0.70%	NVDNAEGSDTDY	R	-	95.00%	1.92	0.287	0	1	0	0	2	1,379.46	4850	4861	TRUE	
SNU216_PC1_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.13	0.28	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC1_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	3.84	0.252	0	0	0	1	2	2,990.55	202	227	TRUE	
SNU216_PC1_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	3.02	0.409	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216_PC1_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	2.8	0.36	0	0	1	0	2	1,915.77	775	790	TRUE	
SNU216_PC1_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.08	0.264	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216_PC1_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	3.04	0.184	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	7	8	9	0.06%	3.03%	DLEPGEVPSDSDEDGEHK	R	S	95.00%	3.83	0.465	0	2	0	0	2	2,034.78	1372	1389	TRUE	
SNU216_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	7	8	9	0.06%	3.03%	HGSFHEDEDPIGSPR	R	L	95.00%	3.07	0.367	0	1	1	0	2	1,759.71	1266	1280	TRUE	
SNU216_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	7	8	9	0.06%	3.03%	SESPQKEDGLSSQLK	K	S	95.00%	2.53	0.27	0	1	0	0	2	1,712.77	2124	2138	TRUE	
SNU216_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	7	8	9	0.06%	3.03%	SKTPVQAAAVSIVEKPVTR	R	K	95.00%	3.89	0.545	0	0	1	0	2	2,061.11	1824	1842	TRUE	
SNU216_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	7	8	9	0.06%	3.03%	SQSPVHLR	R	R	90.00%	1.87	0.192	0	1	0	0	2	1,003.47	725	732	TRUE	
SNU216_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	7	8	9	0.06%	3.03%	SRSPNRFDAHDPR	R	Y	95.00%	2.1	0.311	0	0	0	1	2	1,634.72	188	200	TRUE	
SNU216_PC1_01	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	7	8	9	0.06%	3.03%	SVYATMGDHENRSPVKEPVEQPR	R	V	95.00%	3.23	0.182	0	0	1	0	2	2,706.23	1906	1928	TRUE	
SNU216_PC1_01	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	99.80%	2	2	2	0.01%	1.98%	EAAEPLSEPKEDQEAAELLSEPEEESER	R	H	95.00%	5.37	0.444	0	0	1	0	2	3,221.39	1104	1131	TRUE	
SNU216_PC1_01	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	99.80%	2	2	2	0.01%	1.98%	EDQEAAELLSEPEEESER	K	H	95.00%	3.63	0.295	0	1	0	0	2	2,169.87	1114	1131	TRUE	
SNU216_PC1_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.75	0.378	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216_PC1_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	3.21	0.25	0	0	1	0	2	2,089.00	609	627	TRUE	
SNU216_PC1_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.35	0.632	0	1	2	0	2	2,992.36	1263	1291	TRUE	
SNU216_PC1_01	Huntingtin	IPI00002335	347,859.30	99.80%	2	2	2	0.01%	0.54%	EKEPGEQASVPLSPK	K	K	95.00%	3.61	0.344	0	1	0	0	2	1,675.79	1189	1203	TRUE	
SNU216_PC1_01	Huntingtin	IPI00002335	347,859.30	99.80%	2	2	2	0.01%	0.54%	GKEKEPGEQASVPLSPK	K	K	95.00%	3.9	0.412	0	0	1	0	2	1,860.91	1187	1203	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.89%	AETEKQSPPHGEAK	K	A	95.00%	2.27	0.237	0	0	1	0	2	1,588.70	46	59	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.89%	LSVSSNDTQESGNSSGPSPGAK	R	F	95.00%	4.68	0.009	0	1	0	0	2	2,185.92	393	414	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	3	3	0.02%	3.89%	TTIPHALLTWRPNSGETAPPPPSPVSEKPLDT	K	S	95.00%	4.73	0.457	0	0	0	1	2	3,943.00	1533	1568	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	4.38%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.69	0.449	0	2	0	0	2	1,868.75	1461	1477	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	4.38%	NSKSPEEHLEEMMK	K	M	95.00%	4.19	0.448	0	1	1	0	2	1,768.73	358	371	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	4.38%	RSDVQEESEGSDTDDNK	R	D	95.00%	2.62	0.471	0	1	0	0	2	2,070.72	698	714	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	5	6	0.04%	4.38%	SDVQEESEGSDTDDNKDSAAFEDNEVQDE	R	L	85.20%	5.47	0.0178	0	0	1	0	2	3,881.46	699	731	TRUE	
SNU216_PC1_01	dystonin isoform 1	IPI00074148	629,787.60	100.00%	3	3	3	0.02%	0.71%	AMVDSQQKSPVK	R	R	95.00%	2.97	0.286	0	1	0	0	2	1,397.65	1374	1385	TRUE	
SNU216_PC1_01	dystonin isoform 1	IPI00074148	629,787.60	100.00%	3	3	3	0.02%	0.71%	LLDPEDVDVSSPDEK	R	S	95.00%	3.32	0.154	0	1	0	0	2	1,737.75	227	241	TRUE	
SNU216_PC1_01	dystonin isoform 1	IPI00074148	629,787.60	100.00%	3	3	3	0.02%	0.71%	QKSFSEDVISHK	R	G	95.00%	2.62	0.336	0	0	1	0	2	1,484.68	1880	1891	TRUE	
SNU216_PC1_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	2	2	2	0.01%	4.53%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	3.31	0.167	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216_PC1_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	2	2	2	0.01%	4.53%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	3.28	0.326	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.94%	RRSNTLDIMDGR	R	I	95.00%	3.48	0.366	0	0	1	0	2	1,513.69	1515	1526	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.94%	SNTLDIMDGR	R	I	95.00%	2.24	0.386	0	1	0	0	2	1,201.49	1517	1526	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.94%	STGQLNLSTSPINSSSYLGYNSNAR	K	S	95.00%	5.29	0.0061	0	1	0	0	2	2,711.23	1474	1498	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC23045 isofo	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.94%	TYGGDTGSPEISFTK	K	I	87.80%	2.79	0.097	0	1	0	0	2	1,639.69	1867	1881	TRUE	
SNU216_PC1_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.03%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	4.86	0.524	0	0	1	0	2	2,951.45	55	80	TRUE	
SNU216_PC1_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.17	0.266	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC1_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	7.73	0.633	0	0	1	2	2	3,735.89	46	80	TRUE	
SNU216_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	5	6	6	0.04%	4.04%	GSVILDSGHLSTASSSDDLKGEEGSFR	K	G	95.00%	5.71	0.0557	0	0	1	0	2	2,831.27	88	114	TRUE	
SNU216_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	5	6	6	0.04%	4.04%	NKLEGDSDVDSELEDRVDGVK	K	S	95.00%	5.28	0.331	0	1	1	0	2	2,399.06	1967	1987	TRUE	
SNU216_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	5	6	6	0.04%	4.04%	SLAPDRSDDEHDPLDNTSR	K	P	95.00%	3.06	0.207	0	0	1	0	2	2,219.92	2017	2035	TRUE	
SNU216_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	5	6	6	0.04%	4.04%	SLAPDRSDDEHDPLDNTSRPR	K	Y	95.00%	3.8	0.389	0	0	1	0	2	2,473.07	2017	2037	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	5	6	6	0.04%	4.04%	YSHSYLSDSDTEAK	R	L	95.00%	3.06	0.334	0	1	0	0	2	1,682.66	2038	2051	TRUE	
SNU216_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	6.00%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	3.17	0.293	0	1	0	0	2	2,128.98	652	671	TRUE	
SNU216_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	6.00%	RGESLDNLDSPR	R	S	95.00%	2.52	0.327	0	1	0	0	2	1,438.63	1173	1184	TRUE	
SNU216_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	6.00%	SASVNKEPVSLPGIMR	R	R	95.00%	2.59	0.28	0	0	1	0	2	1,764.87	1157	1172	TRUE	
SNU216_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	6.00%	SHSPSASQSGSQLR	R	N	95.00%	2.72	0.295	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216_PC1_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	6.00%	SRSTTELDDYSTNKNGNNK	K	Y	95.00%	3.37	0.215	0	0	1	0	2	2,223.95	1087	1105	TRUE	
SNU216_PC1_01	COPA protein	IPI00646493	139,327.40	100.00%	1	1	1	0.01%	0.97%	NLSPGAVESDVR	K	G	95.00%	2.98	0.476	0	1	0	0	2	1,323.59	171	182	TRUE	
SNU216_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	GDSLKEPTSIAESSR	R	H	95.00%	2.81	0.358	0	1	1	0	2	1,656.75	325	339	TRUE	
SNU216_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	GVGSPEPGPTAPYLGR	R	S	95.00%	3.2	0.226	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	4.1	0.132	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC1_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	5	5	0.03%	12.50%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.8	0.513	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	4	7	9	0.06%	5.18%	GLQSLPTHDPSPLQR	K	Y	95.00%	2.81	0.406	0	1	1	0	2	1,725.83	1067	1081	TRUE	
SNU216_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	4	7	9	0.06%	5.18%	HRSSSTRSGGGDLTLGLEPSEEEAPR	R	S	87.00%	5.04	0.0373	0	0	1	0	2	2,965.21	1017	1042	TRUE	
SNU216_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	4	7	9	0.06%	5.18%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	4.11	0.439	0	2	1	0	2	1,993.88	1024	1042	TRUE	
SNU216_PC1_01	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	100.00%	4	7	9	0.06%	5.18%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	5.57	0.619	0	2	1	0	2	2,329.01	1043	1066	TRUE	
SNU216_PC1_01	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	2	2	2	0.01%	3.72%	NQATSATSEKDNDDDQSDKGTYTIELENPN	K	K	95.00%	5.42	0.0838	0	0	1	0	2	4,180.76	482	518	TRUE	
SNU216_PC1_01	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	2	2	2	0.01%	3.72%	SSPVNNHHSPGQTPTLGQPEAR	K	A	95.00%	2.56	0.332	0	0	1	0	2	2,391.08	1522	1543	TRUE	
SNU216_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	5	5	0.03%	2.62%	AQTLPTSVVTITSESSPGKR	R	E	95.00%	4.79	0.0285	0	1	0	0	2	2,139.07	2326	2345	TRUE	
SNU216_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	5	5	0.03%	2.62%	GEQVSQNGLPAEQGSPR	K	M	95.00%	2.74	0.272	0	1	0	0	2	1,833.81	2124	2140	TRUE	
SNU216_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	5	5	0.03%	2.62%	RPPSPEPSTK	R	V	95.00%	2.85	0.377	1	1	0	0	2	1,175.55	2099	2108	TRUE	
SNU216_PC1_01	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	5	5	0.03%	2.62%	VSEEAESQQQWDTSKGEQVSQNGLPAEQ	K	M	95.00%	5	0.433	0	0	1	0	2	3,566.57	2109	2140	TRUE	
SNU216_PC1_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	2	3	3	0.02%	13.80%	AGDLLEDSPKRPK	R	E	95.00%	3.18	0.17	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216_PC1_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	2	3	3	0.02%	13.80%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.12	0.34	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216_PC1_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	2	2	2	0.01%	5.22%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.67	0.437	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216_PC1_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	2	2	2	0.01%	5.22%	YVDEENSDGETSNHR	K	L	95.00%	2.23	0.393	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216_PC1_01	Isoform 1 of Protein KIAA0195	IPI00431262,IPI00431263	154,928.50	99.80%	2	2	3	0.02%	3.23%	GIKDDEHIVLEPGDLFPPFSPPPSPR	R	G	95.00%	4.22	0.543	0	0	2	0	2	2,936.42	202	227	TRUE	
SNU216_PC1_01	Isoform 1 of Protein KIAA0195	IPI00431262,IPI00431263	154,928.50	99.80%	2	2	3	0.02%	3.23%	VEPPHSSHEDLTDGLSTR	K	S	95.00%	2.73	0.194	0	0	1	0	2	2,056.90	445	462	TRUE	
SNU216_PC1_01	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	4.79	0.0143	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.47	0.513	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	ETPHSPGVEDAPIAK	R	V	95.00%	3.03	0.41	0	1	1	0	2	1,627.74	486	500	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.62	0.484	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.47	0.536	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	LRSPPEALVQGR	R	Y	95.00%	2.67	0.28	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.39	0.368	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.9	0.525	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216_PC1_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	11	12	0.07%	16.50%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	5.27	0.0332	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	5	6	0.04%	2.76%	KNSLISSLEEEVSILNR	R	Q	95.00%	3.81	0.391	0	1	1	0	2	2,011.01	1223	1239	TRUE	
SNU216_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	5	6	0.04%	2.76%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	2.83	0.329	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216_PC1_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	5	6	0.04%	2.76%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.42	0.5	0	2	1	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC1_01	Epiplakin	IPI00010951	553,088.70	99.80%	1	2	2	0.01%	0.38%	QVSASELHTSGILGPETLR	R	D	95.00%	3.06	0.449	0	1	1	0	2	2,075.02	2689	2707	TRUE	
SNU216_PC1_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	3	3	3	0.02%	5.26%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	4.54	0.511	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216_PC1_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	3	3	3	0.02%	5.26%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.04	0.336	0	0	1	0	2	2,172.03	344	362	TRUE	
SNU216_PC1_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	3	3	3	0.02%	5.26%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	5.13	0.13	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	ANTSGDFEKDDDAYKTEDSDDIHFEPVVQN	K	V	93.80%	4.9	0.0631	0	0	0	1	2	3,852.61	1990	2022	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	AVVSPPKFVFGSESVK	K	S	95.00%	2.82	0.35	0	1	1	0	2	1,757.89	2507	2522	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	DSLITPHVSR	K	S	85.30%	1.98	0.172	0	1	0	0	2	1,204.57	2446	2455	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	KPEDSPSDDDVLIVYELTPTAEQK	K	A	95.00%	3.03	0.223	0	0	1	0	2	2,769.28	2622	2645	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	KQSLPATSIPTPASFK	R	F	95.00%	2.9	0.322	0	1	0	0	2	1,752.89	1507	1522	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	LNQSGTSVGTDEESDVTQEEER	K	D	95.00%	4.62	0.0751	0	1	0	0	2	2,490.02	2284	2305	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	NADSEIKHSTPSPTR	R	Y	95.00%	2.82	0.349	0	1	0	0	2	1,719.77	770	784	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	I	95.00%	3.67	0.349	0	0	1	1	2	3,149.28	1153	1181	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	T	95.00%	5.14	0.468	0	0	1	1	2	3,618.57	1153	1185	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.89	0.484	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	NRPDYVSEEEEDDEDFETAVK	K	K	95.00%	4.43	0.627	0	1	0	0	2	2,596.02	2662	2682	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	TSPENVQDR	K	F	95.00%	2.28	0.388	0	1	0	0	2	1,125.46	1399	1407	TRUE	
SNU216_PC1_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	13	17	17	0.11%	7.85%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	5.35	0.499	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216_PC1_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	AEEDEILNRSPR	K	N	95.00%	2.31	0.368	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC1_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.52	0.394	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216_PC1_01	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	4	5	5	0.03%	1.75%	AQSPVSGPNVAHLTDGATLNDR	R	S	95.00%	4.71	0.474	0	0	1	0	2	2,300.07	1045	1066	TRUE	
SNU216_PC1_01	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	4	5	5	0.03%	1.75%	EKDDLSPQPLMTDFER	K	S	95.00%	3.11	0.18	0	1	0	0	2	2,000.87	1138	1153	TRUE	
SNU216_PC1_01	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	4	5	5	0.03%	1.75%	EVQDKDYPLTPPPSPTVDEPK	K	I	95.00%	3.85	0.322	0	0	1	0	2	2,512.09	1757	1777	TRUE	
SNU216_PC1_01	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	4	5	5	0.03%	1.75%	SLPSHMEEAPNVFQLYQR	R	P	95.00%	3.31	0.47	0	1	1	0	2	2,226.01	1729	1746	TRUE	
SNU216_PC1_01	Phosphatidate cytidylyltransferase 1	IPI00024234	53,306.50	100.00%	1	1	1	0.01%	5.21%	EGEAAGGDHETESTSDKETDIDDR	R	Y	95.00%	5.45	0.0724	0	1	0	0	2	2,644.02	23	46	TRUE	
SNU216_PC1_01	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	99.80%	2	2	2	0.01%	1.71%	HADGEKEDQFNGSPPRPQPR	K	G	95.00%	3.01	0.306	0	0	1	0	2	2,342.03	161	180	TRUE	
SNU216_PC1_01	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	99.80%	2	2	2	0.01%	1.71%	SFLSEPSSPGR	R	T	95.00%	2.45	0.463	0	1	0	0	2	1,243.54	1572	1582	TRUE	
SNU216_PC1_01	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	99.80%	1	1	1	0.01%	0.97%	SGSGISVISSTSVDQR	R	L	95.00%	3.16	0.368	0	1	0	0	2	1,659.76	313	328	TRUE	
SNU216_PC1_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	3	5	0.03%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	2.42	0.194	0	1	0	0	2	1,628.71	298	311	TRUE	
SNU216_PC1_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	3	5	0.03%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.39	0.513	0	2	2	0	2	1,917.95	294	311	TRUE	
SNU216_PC1_01	IMP dehydrogenase/GMP reductase family protein	IPI00744888	59,417.00	99.10%	2	2	2	0.01%	4.48%	DSSEDDISR	K	S	95.00%	0.679	0.658	1	0	0	0	2	1,263.32	251	259	TRUE	
SNU216_PC1_01	IMP dehydrogenase/GMP reductase family protein	IPI00744888	59,417.00	99.10%	2	2	2	0.01%	4.48%	QESTSKADLNCSKNK	R	D	81.20%	2.59	0.161	0	1	0	0	2	1,789.78	138	152	TRUE	
SNU216_PC1_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.60%	2	2	2	0.01%	2.73%	AASPYSQRPASPTAIRR	R	I	91.70%	2.07	0.222	0	0	1	0	2	1,908.94	271	287	TRUE	
SNU216_PC1_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.60%	2	2	2	0.01%	2.73%	VASPSQGQVGSSSPKR	R	S	95.00%	3.55	0.187	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216_PC1_01	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	99.80%	2	2	2	0.01%	1.79%	EAGSPAQEFK	R	Y	95.00%	2.5	0.513	0	1	0	0	2	1,143.47	610	619	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	99.80%	2	2	2	0.01%	1.79%	HIISATSLSTSPTELGSR	R	N	95.00%	3.99	0.0254	0	1	0	0	2	1,936.94	216	233	TRUE	
SNU216_PC1_01	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	99.80%	2	2	2	0.01%	1.79%	SEGSEYEELPKR	H	R	95.00%	2.25	0.467	0	1	1	0	1	1,503.64	1136	1147	TRUE	
SNU216_PC1_01	Isoform 1 of YEATS domain-containing protein 2	IPI00008200	150,780.00	99.90%	2	2	2	0.01%	2.67%	ASSPIKQSHEPVPDTSVEK	K	G	95.00%	3.61	0.251	0	0	1	0	2	2,116.00	365	383	TRUE	
SNU216_PC1_01	Isoform 1 of YEATS domain-containing protein 2	IPI00008200	150,780.00	99.90%	2	2	2	0.01%	2.67%	QPGQVIGATTPSTGSPTNK	K	I	95.00%	2.69	0.293	0	1	0	0	2	1,920.91	505	523	TRUE	
SNU216_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	6	8	8	0.05%	4.74%	DDATPVRDEPMDAESITFK	R	S	95.00%	3.6	0.326	0	0	1	0	2	2,216.94	804	822	TRUE	
SNU216_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	6	8	8	0.05%	4.74%	KVTGTEGSSSTLVDYTSTSSTGGSPVRK	R	S	95.00%	7.66	0.039	0	0	1	0	2	2,869.35	1077	1104	TRUE	
SNU216_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	6	8	8	0.05%	4.74%	LEVTEIVKPSPK	K	R	95.00%	3.39	0.41	0	1	1	0	2	1,419.75	993	1004	TRUE	
SNU216_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	6	8	8	0.05%	4.74%	NLQPLMRSPISR	R	Q	95.00%	2.43	0.161	0	1	0	0	2	1,491.75	176	187	TRUE	
SNU216_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	6	8	8	0.05%	4.74%	VTGTEGSSSTLVDYTSTSSTGGSPVR	K	K	95.00%	5.09	0.131	0	1	0	0	2	2,613.16	1078	1103	TRUE	
SNU216_PC1_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	6	8	8	0.05%	4.74%	WDKDDFESEEEDVK	K	S	95.00%	4.04	0.344	0	1	1	0	2	1,850.70	1144	1157	TRUE	
SNU216_PC1_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	3	3	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTK	R	R	95.00%	4.13	0.322	0	0	1	0	2	2,616.12	1181	1203	TRUE	
SNU216_PC1_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	3	3	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	4.35	0.341	0	0	1	0	2	2,772.23	1181	1204	TRUE	
SNU216_PC1_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	3	3	0.02%	2.94%	SSIHNFMTHPEFR	R	I	95.00%	2.7	0.27	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216_PC1_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	3.39	0.311	0	0	1	0	2	2,141.98	652	670	TRUE	
SNU216_PC1_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.85	0.403	0	1	1	0	2	2,238.86	634	651	TRUE	
SNU216_PC1_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.46%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	5.65	0.417	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216_PC1_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.46%	SPQGQLDTSESKPDSFFLEPLMPAVLKPAK	R	E	95.00%	2.22	0.241	0	0	1	0	2	3,337.64	297	326	TRUE	
SNU216_PC1_01	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.41%	ASASRPQPAPADGADPPPAEEPEARPDGEC	R	A	95.00%	4.63	0.306	0	0	1	0	2	3,388.51	92	125	TRUE	
SNU216_PC1_01	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.41%	PQPAPADGADPPPAEEPEARPDGEGSPGK	R	A	95.00%	3.54	0.38	0	0	1	0	2	2,916.27	97	125	TRUE	
SNU216_PC1_01	Breakpoint cluster region protein	IPI00004497	142,809.60	100.00%	3	3	3	0.02%	4.41%	RHQDGLPYIDDSPSSSPHLSSK	R	G	95.00%	3.88	0.169	0	0	1	0	2	2,503.13	448	469	TRUE	
SNU216_PC1_01	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	99.80%	2	2	2	0.01%	5.15%	KKLDDQSEDEALELEGPLITPGSGSIYSSPGL\	K	T	95.00%	7.34	0.531	0	0	1	0	2	3,803.82	153	187	TRUE	
SNU216_PC1_01	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	99.80%	2	2	2	0.01%	5.15%	KLDDQSEDEALELEGPLITPGSGSIYSSPGLYS	K	T	95.00%	6.47	0.54	0	0	1	0	2	3,675.72	154	187	TRUE	
SNU216_PC1_01	zinc finger transcription factor TRPS1	IPI00296078	143,023.70	99.80%	1	1	1	0.01%	1.16%	TLRDSPNVEAAHLAR	K	P	95.00%	2.68	0.269	0	0	1	0	2	1,729.84	839	853	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	2	2	2	0.01%	0.58%	KMSQPGSPSPK	K	T	92.50%	2.36	0.145	0	1	0	0	2	1,303.52	1557	1567	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	2	2	2	0.01%	0.58%	MSQPGSPSPK	K	T	95.00%	1.87	0.378	0	1	0	0	2	1,175.42	1558	1567	TRUE	
SNU216_PC1_01	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	1	1	1	0.01%	2.47%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	5.74	0.322	0	0	1	0	2	3,132.14	621	646	TRUE	
SNU216_PC1_01	acetyl-Coenzyme A carboxylase alpha isoform 1	IPI00396015,IPI00472339	265,556.40	99.80%	1	1	1	0.01%	0.84%	FIIGSVSEDNSEDEISNLVK	R	L	95.00%	4.53	0.371	0	1	0	0	2	2,275.04	19	38	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.61	0.353	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	APSRPYQDTRGSYGSDAEEEEYR	K	Q	95.00%	2.75	0.281	0	0	1	0	2	2,743.13	1145	1167	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	DNSPPPAFKPEPPK	R	A	95.00%	3.01	0.518	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	GRSIDQDYER	R	A	95.00%	2.63	0.259	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	GSYGSDAEEEEYR	R	Q	95.00%	2.04	0.289	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.15	0.323	0	1	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	KVQVAALQASPPLDQDDR	R	A	95.00%	3.38	0.406	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	RHQYSDYDYHSSSEK	R	L	95.00%	4.07	0.419	0	0	1	0	2	1,981.77	420	434	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	SIDQDYER	R	A	95.00%	1.74	0.334	1	0	0	0	2	1,105.42	244	251	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	4.57	0.399	0	0	3	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	SREHPHSRSPSPEPR	R	G	95.00%	2.16	0.335	0	1	0	0	2	1,995.76	286	300	TRUE	
SNU216_PC1_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	12.60%	SRSWEDSPER	R	G	95.00%	2.45	0.288	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	EKSESGGSEYGTGPGR	R	K	95.00%	3.11	0.451	0	2	0	0	2	1,677.68	131	146	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	ELQGDGPPSSPTNDPTVK	K	Y	95.00%	3.63	0.396	0	1	0	0	2	1,918.84	749	766	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	GGSYVFQSDEGPEPEAEESDLDSGSVHSAS	K	T	95.00%	4.61	0.107	0	0	0	1	2	3,983.68	351	388	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	KGGSYVFQSDEGPEPEAEESDLDSGSVHSA:	K	T	95.00%	5.51	0.11	0	0	0	1	2	4,111.78	350	388	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	KNDMDEPPPLDYGSGEDDGK	R	S	95.00%	4.77	0.411	0	0	1	0	2	2,258.88	629	648	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	KNDMDEPPPLDYGSGEDDGKSDK	R	R	95.00%	4.75	0.431	0	0	1	0	2	2,589.03	629	651	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	METEADAPSPAPSLGER	K	L	95.00%	4.29	0.49	0	4	0	0	2	1,853.76	1638	1654	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	8	8	12	0.07%	5.65%	SESGGSEYGTGPGR	K	K	95.00%	2.67	0.355	0	1	0	0	2	1,420.54	133	146	TRUE	
SNU216_PC1_01	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	3	0.02%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.35	0.234	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216_PC1_01	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	3	0.02%	1.27%	SSDGSLSHEEDLAK	R	V	95.00%	2.56	0.232	0	2	0	0	2	1,554.63	238	251	TRUE	
SNU216_PC1_01	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	99.80%	2	3	3	0.02%	3.87%	RRPGASPTGETPTIEEGEEDEDEASEAEGAR	R	A	95.00%	6.92	0.594	0	0	1	1	2	3,352.41	94	124	TRUE	
SNU216_PC1_01	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	99.80%	2	3	3	0.02%	3.87%	TSPSSPAPLPHQEATPR	R	A	95.00%	2.85	0.358	0	1	0	0	2	1,852.86	155	171	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	AEASSPVPYLSPETNPASSTSAVNHNVNLT	K	L	95.00%	6.68	0.0142	0	0	1	0	2	3,503.64	923	955	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	4.08	0.557	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	3.36	0.407	0	2	3	0	2	2,290.07	266	286	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	DDISEIQSLASDHSGR	R	S	95.00%	3.16	0.362	0	2	1	0	2	1,809.77	287	302	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	95.00%	3.86	0.374	0	0	0	1	2	3,211.37	883	909	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	HSPQQPSNGSLR	R	S	95.00%	1.88	0.292	0	1	0	0	2	1,387.61	328	339	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	IDSPGFKPASQQK	R	A	95.00%	2.36	0.31	0	0	1	0	2	1,482.70	910	922	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	3.34	0.283	0	0	1	1	2	2,165.08	346	365	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.35	0.414	0	0	2	2	2	3,651.55	111	140	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	3.91	0.421	0	0	0	1	2	3,866.70	877	909	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	SVASSQPAKPTK	R	V	95.00%	2.29	0.41	0	2	0	0	2	1,280.62	175	186	TRUE	
SNU216_PC1_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	12	16	24	0.15%	12.30%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	6.32	0.513	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216_PC1_01	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.50%	2	3	3	0.02%	2.34%	LSGEHSESSTPRPR	K	S	90.40%	1.87	0.237	0	1	0	0	2	1,619.72	1315	1328	TRUE	
SNU216_PC1_01	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.50%	2	3	3	0.02%	2.34%	SLDSEPSVPSAAKPPSPEK	K	T	95.00%	3.6	0.341	0	1	1	0	2	2,002.94	357	375	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC440193 isofo	IPI00737659,IPI00740019	228,234.70	99.80%	1	1	1	0.01%	0.64%	DYLQAQHPPSPIK	R	S	95.00%	2.99	0.319	0	1	0	0	2	1,573.74	218	230	TRUE	
SNU216_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	3	4	4	0.02%	3.17%	AQSNGSGNGSDSEMDTSSLER	K	G	95.00%	3.71	0.451	0	1	0	0	2	2,208.83	1125	1145	TRUE	
SNU216_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	3	4	4	0.02%	3.17%	KVSIVSKPVLYR	R	T	95.00%	2.89	0.234	0	1	1	0	2	1,468.83	1148	1159	TRUE	
SNU216_PC1_01	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	3	4	4	0.02%	3.17%	TSFSVGSDDELGPIR	R	K	95.00%	2.97	0.378	0	1	0	0	2	1,659.73	1173	1187	TRUE	
SNU216_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	6	0.04%	4.69%	GEEGSDDDETENGPKPK	K	K	95.00%	3.84	0.421	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	6	0.04%	4.69%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	3.61	0.458	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	6	0.04%	4.69%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.44	0.491	0	1	1	0	2	2,436.01	935	955	TRUE	
SNU216_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	6	0.04%	4.69%	KGSGSEQEGEDEEGGER	R	K	95.00%	3.57	0.543	0	1	0	0	2	1,939.66	961	977	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	6	0.04%	4.69%	RKGSGSEQEGEDEEGGER	R	K	95.00%	2.76	0.398	0	1	0	0	2	2,095.76	960	977	TRUE	
SNU216_PC1_01	Protein kinase C iota type	IPI00016639	67,259.10	100.00%	2	2	2	0.01%	9.03%	ASSSLGLQDFDLLR	K	V	95.00%	3.21	0.448	0	1	0	0	2	1,601.76	236	249	TRUE	
SNU216_PC1_01	Protein kinase C iota type	IPI00016639	67,259.10	100.00%	2	2	2	0.01%	9.03%	QVVPPFKPNISGEFGLDNFDSQFTNEPVQL	K	K	95.00%	4.34	0.337	0	0	1	0	2	4,470.08	525	563	TRUE	
SNU216_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	3	3	3	0.02%	1.92%	DQMEGSPNSSESFEHIAR	R	S	95.00%	2.86	0.268	0	1	0	0	2	2,100.83	774	791	TRUE	
SNU216_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	3	3	3	0.02%	1.92%	LPDLSPVENK	R	E	95.00%	2.42	0.281	0	1	0	0	2	1,191.57	2101	2110	TRUE	
SNU216_PC1_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	3	3	3	0.02%	1.92%	QRGSETDTDSEIHESASDKDSLSK	R	G	95.00%	2.29	0.332	0	0	1	0	2	2,862.08	1260	1283	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	3	6	8	0.05%	1.16%	KMSDDEDDDEEEYGK	K	E	95.00%	1.88	0.419	0	1	0	0	2	1,884.64	123	137	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	3	6	8	0.05%	1.16%	KMSDDEDDDEEEYGKEEHEK	K	E	95.00%	4.75	0.53	0	1	1	2	2	2,536.92	123	142	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	3	6	8	0.05%	1.16%	MSDDEDDDEEEYGKEEHEK	K	E	95.00%	4.72	0.567	0	1	2	0	2	2,408.82	124	142	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SGEGEVSGLMR	R	K	95.00%	2.56	0.416	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216_PC1_01	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.57	0.296	0	1	0	0	2	1,444.63	471	483	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	4	5	0.03%	8.84%	ISEGLPTPTKMTPR	K	S	95.00%	2.61	0.204	0	1	0	0	2	1,607.79	815	828	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	4	5	0.03%	8.84%	KSNLDEEVNVIPPHTPVR	R	T	95.00%	4.17	0.325	0	0	2	0	2	2,124.05	359	376	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	4	5	0.03%	8.84%	KTAATAAAAAAEPPAPPPPPPPEEDPEQDS	R	L	95.00%	7.56	0.586	0	0	1	0	2	3,976.89	8	46	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	4	5	0.03%	8.84%	TAVIPINGSPR	K	T	93.90%	1.9	0.232	0	1	0	0	2	1,204.61	241	251	TRUE	
SNU216_PC1_01	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEK	K	K	95.00%	3.71	0.228	0	0	1	0	2	2,415.04	129	149	TRUE	
SNU216_PC1_01	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEKK	R	D	95.00%	5.89	0.493	0	0	1	1	2	2,543.14	129	150	TRUE	
SNU216_PC1_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	3	3	3	0.02%	6.55%	HYEDGYPGGSDNYGSLSR	R	V	88.80%	2.47	0.159	0	1	0	0	2	2,053.79	162	179	TRUE	
SNU216_PC1_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	3	3	3	0.02%	6.55%	SQSSHSYDDSTLPLIDR	R	N	92.00%	3.36	0.0718	0	1	0	0	2	2,000.86	799	815	TRUE	
SNU216_PC1_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	3	3	3	0.02%	6.55%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.25	0.436	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC1_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	5	5	0.03%	4.00%	RDSLTGSSDLYK	R	R	95.00%	3.15	0.333	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216_PC1_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	5	5	0.03%	4.00%	RDSLTGSSDLYKR	R	T	95.00%	3.6	0.483	0	0	1	0	2	1,577.73	708	720	TRUE	
SNU216_PC1_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	5	5	0.03%	4.00%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.85	0.337	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216_PC1_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	5	5	0.03%	4.00%	SMDELNHDFQALALEGR	R	A	95.00%	3.02	0.463	0	1	1	0	2	2,025.87	124	140	TRUE	
SNU216_PC1_01	Dedicator of cytokinesis protein 1	IPI00015286	215,383.10	99.30%	1	1	1	0.01%	0.64%	SQDKLDKDDLEK	R	E	94.90%	2.83	0.123	0	1	0	0	2	1,513.68	1681	1692	TRUE	
SNU216_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	7	9	11	0.07%	4.62%	ASESSSEEKDDYEIFVK	R	V	95.00%	3.03	0.328	0	1	1	0	2	2,042.85	1779	1795	TRUE	
SNU216_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	7	9	11	0.07%	4.62%	DIHLDLPSNNNLVSKDTEEPLPVKESDQTLA	K	E	86.30%	4.91	0.0435	0	0	0	1	2	4,121.07	1663	1699	TRUE	
SNU216_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	7	9	11	0.07%	4.62%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	6.5	0.605	0	0	1	2	2	2,461.21	1678	1699	TRUE	
SNU216_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	7	9	11	0.07%	4.62%	ESDQTLAALLSPK	K	E	95.00%	2.89	0.32	0	0	2	0	2	1,452.70	1687	1699	TRUE	
SNU216_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	7	9	11	0.07%	4.62%	QIAQSKEDDDVIVNKPHVSDEEEEEPPFYH	K	L	92.50%	4.6	0.0707	0	0	0	1	2	4,112.86	2111	2144	TRUE	
SNU216_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	7	9	11	0.07%	4.62%	SAASPVVSSMPER	R	A	95.00%	2.6	0.442	0	1	0	0	2	1,397.61	1766	1778	TRUE	
SNU216_PC1_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	7	9	11	0.07%	4.62%	SVESTSPEPSK	K	I	95.00%	1.68	0.305	1	0	0	0	2	1,227.51	278	288	TRUE	
SNU216_PC1_01	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	99.80%	2	2	2	0.01%	2.06%	EVDPNDLYIVEPLKFSPEKK	K	K	95.00%	5.49	0.363	0	0	1	0	2	2,440.21	1240	1259	TRUE	
SNU216_PC1_01	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	99.80%	2	2	2	0.01%	2.06%	SKSLQLTGK	R	E	95.00%	1.97	0.355	0	1	0	0	2	1,041.53	1231	1239	TRUE	
SNU216_PC1_01	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.67	0.573	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216_PC1_01	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	QSSPSGSEQLVR	R	R	95.00%	2.69	0.43	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.3	0.371	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	DMESPTKLDVTLAK	K	D	95.00%	3.91	0.283	0	2	1	0	2	1,627.77	305	318	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	DMSPLSETEMALGK	K	D	95.00%	2.71	0.378	0	4	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	3.75	0.42	0	0	4	0	2	3,106.50	533	560	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	DVTPPPETEVVLIK	K	N	95.00%	2.26	0.206	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	ETERASPIKMDLAPSK	K	D	95.00%	3.33	0.316	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	6.66	0.0397	0	0	1	0	2	3,569.64	628	661	TRUE	
SNU216_PC1_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	8	10	17	0.11%	11.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	6.03	0.132	0	0	0	1	2	3,697.73	628	662	TRUE	
SNU216_PC1_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	2	2	2	0.01%	16.90%	DWEDDSDEDMSNFDR	K	F	95.00%	1.8	0.293	0	1	0	0	2	1,971.62	108	122	TRUE	
SNU216_PC1_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	2	2	2	0.01%	16.90%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	3.15	0.223	0	0	1	0	2	3,472.37	96	122	TRUE	
SNU216_PC1_01	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	5.90%	KASPEPPDSAEGALK	R	L	95.00%	4.25	0.522	0	1	0	0	2	1,576.73	545	559	TRUE	
SNU216_PC1_01	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	5.90%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	D	95.00%	2.77	0.262	0	0	1	0	2	3,241.49	610	641	TRUE	
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.26	0.442	0	1	0	0	2	2,438.12	4224	4246	FALSE	IPI00398002,IPI00186711
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	GYYSPYSVSGSGSTAGSR	K	T	93.30%	3.6	0.0369	0	1	0	0	2	1,862.76	4473	4490	FALSE	IPI00398002,IPI00186711
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	KRTSSEDNLYLAVLR	R	A	95.00%	3.28	0.299	0	0	2	0	2	1,844.93	17	31	TRUE	
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	3.85	0.14	0	1	4	0	2	2,853.15	4503	4529	FALSE	IPI00398002,IPI00186711
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	RTSSEDNLYLAVLR	K	A	95.00%	3.18	0.392	0	0	1	0	2	1,716.83	18	31	TRUE	
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	SDEGQLSPATR	R	G	95.00%	2.16	0.328	0	1	0	0	2	1,240.52	577	587	FALSE	IPI00398002,IPI00186711
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	SLQEEHVAVAQLR	R	E	93.80%	2.1	0.21	0	1	0	0	2	1,559.76	1595	1607	FALSE	IPI00398002,IPI00186711
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	SRSSSVGSSSSYPISPAVSR	R	T	79.80%	3.26	0.0219	0	1	0	0	2	2,157.92	4245	4264	FALSE	IPI00398002,IPI00186711
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	SSSVGSSSSYPISPAVSR	R	T	95.00%	2.75	0.348	0	2	0	0	2	1,834.82	4247	4264	FALSE	IPI00398002,IPI00186711
SNU216_PC1_01	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	5	0.03%	2.75%	TSSEDNLYLAVLR	R	A	95.00%	2.75	0.46	0	2	0	0	2	1,560.73	19	31	TRUE	
SNU216_PC1_01	103 kDa protein	IPI00646058	102,769.00	100.00%	3	3	3	0.02%	5.35%	ILDILGETCKSEPVK	K	E	95.00%	2.8	0.169	0	1	0	0	2	1,861.84	217	231	TRUE	IPI00005648
SNU216_PC1_01	103 kDa protein	IPI00646058	102,769.00	100.00%	3	3	3	0.02%	5.35%	MSSPEDDSDTKR	K	L	95.00%	2.22	0.382	0	1	0	0	2	1,527.51	382	393	TRUE	
SNU216_PC1_01	103 kDa protein	IPI00646058	102,769.00	100.00%	3	3	3	0.02%	5.35%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.81	0.484	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216_PC1_01	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	100.00%	3	3	3	0.02%	4.89%	ENDLYVLPPLQEEEKHSSEEEDEKEWQER	R	M	95.00%	3.59	0.357	0	0	1	0	2	3,774.57	140	168	TRUE	
SNU216_PC1_01	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	100.00%	3	3	3	0.02%	4.89%	LKTEKEPDATPPSPR	K	T	95.00%	3.53	0.472	0	1	0	0	2	1,745.85	329	343	TRUE	
SNU216_PC1_01	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	100.00%	3	3	3	0.02%	4.89%	NAPAAVDEGSISPR	R	T	95.00%	3.54	0.41	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216_PC1_01	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	99.80%	2	2	2	0.01%	3.05%	AVPVESPVQKV	K	-	95.00%	2	0.311	0	1	0	0	2	1,232.63	422	432	TRUE	
SNU216_PC1_01	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	99.80%	2	2	2	0.01%	3.05%	KAVPVESPVQKV	K	-	95.00%	2.6	0.46	0	1	0	0	2	1,360.72	421	432	TRUE	
SNU216_PC1_01	zinc finger RNA binding protein	IPI00333858	117,011.80	99.90%	2	2	2	0.01%	1.40%	RDSDGVDGFEAEGK	R	K	95.00%	4.31	0.52	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216_PC1_01	zinc finger RNA binding protein	IPI00333858	117,011.80	99.90%	2	2	2	0.01%	1.40%	RDSDGVDGFEAEGKK	R	D	95.00%	3.79	0.423	0	0	1	0	2	1,689.71	1052	1066	TRUE	
SNU216_PC1_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.50%	2	2	2	0.01%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.89	0.468	0	1	0	0	2	1,796.71	490	504	TRUE	
SNU216_PC1_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.50%	2	2	2	0.01%	2.86%	ERDHSPTPSVFNSDEER	R	Y	89.00%	2.88	0.131	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC1_01	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	1	1	1	0.01%	0.45%	WRSLQQLAEER	R	S	95.00%	2.79	0.323	0	1	0	0	2	1,495.71	1215	1225	TRUE	
SNU216_PC1_01	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	4.39	0.496	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216_PC1_01	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	3.91	0.447	0	0	1	0	2	2,648.36	316	339	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	VKVEPADSVESSPPSITHSPQNELK	K	G	95.00%	5.16	0.373	0	0	1	0	2	2,755.32	408	432	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	ALSSAVQASPTSPGGSPSSPSSGQR	K	S	88.00%	3.88	0.0057	0	1	0	0	2	2,460.04	3500	3524	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	AQGQESDSSETSVR	K	G	95.00%	2.95	0.397	0	1	0	0	2	1,560.62	1051	1064	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	GPGEPDSPTPLHPPTPPILSTDR	K	S	95.00%	3.86	0.342	0	0	1	0	2	2,458.17	1831	1853	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	SASPSVPGPTKPKPK	R	T	95.00%	2.74	0.353	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	SREDSPELNPPPGIEDNR	R	Q	95.00%	2.94	0.38	0	1	1	0	2	2,101.92	1854	1871	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	SSIAGSEDAEPLAPPIKPIKPVTR	K	N	95.00%	2.7	0.31	0	0	1	0	2	2,553.33	1114	1137	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	SSPEGPDPPVLTEVSK	R	Q	95.00%	2.3	0.285	0	1	0	0	2	1,718.79	1684	1699	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	8	10	10	0.06%	3.78%	TIAHSPTSFTESSSK	R	E	95.00%	4.01	0.189	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216_PC1_01	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	2	2	2	0.01%	2.72%	LSAITMALQYGSESEEDAALAAAR	R	Y	95.00%	2.86	0.288	0	0	1	0	2	2,548.16	342	365	TRUE	
SNU216_PC1_01	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	2	2	2	0.01%	2.72%	YIEGLSAESNSISKWDQTLAAR	K	R	86.80%	2.88	0.152	0	0	1	0	2	2,599.15	1613	1634	TRUE	
SNU216_PC1_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.86	0.349	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC1_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLR	R	K	95.00%	2.05	0.415	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC1_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLRK	R	S	95.00%	1.9	0.273	0	1	0	0	2	1,220.60	182	191	TRUE	
SNU216_PC1_01	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	5	5	0.03%	3.08%	EKQEEEVDYESEEEEEREGEENDDEDMQEE	K	N	95.00%	5.7	0.65	0	0	1	1	2	3,971.46	1419	1449	TRUE	
SNU216_PC1_01	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	5	5	0.03%	3.08%	LPEEVATPTTDEEKDSLIAIDR	K	S	95.00%	4	0.42	0	0	1	0	2	2,522.19	351	372	TRUE	
SNU216_PC1_01	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	5	5	0.03%	3.08%	QEEEVDYESEEEEER	K	E	95.00%	2.9	0.328	0	1	0	0	2	2,008.72	1421	1435	TRUE	
SNU216_PC1_01	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	5	5	0.03%	3.08%	QEEEVDYESEEEEEREGEENDDEDMQEER	K	N	95.00%	3.75	0.447	0	0	1	0	2	3,714.32	1421	1449	TRUE	
SNU216_PC1_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	3.7	0.412	0	0	2	0	2	3,275.31	348	375	TRUE	
SNU216_PC1_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	MLAESDESGDEESVSQTDK	K	T	95.00%	2.56	0.387	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216_PC1_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.48	0.43	0	0	1	0	2	3,172.29	186	212	TRUE	
SNU216_PC1_01	Pericentriol material 1	IPI00006213	228,705.30	99.90%	1	1	3	0.02%	0.74%	VTNDISPESSPGVGR	R	R	95.00%	3.81	0.504	0	3	0	0	2	1,594.71	60	74	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	99.80%	2	3	3	0.02%	8.37%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.19	0.542	0	1	1	0	2	2,008.94	381	399	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	99.80%	2	3	3	0.02%	8.37%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.02	0.456	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	GSLAPQDSDSEVSQNR	K	S	95.00%	2.96	0.502	0	1	0	0	2	1,769.73	418	433	TRUE	
SNU216_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	HSSADNLANEMTYITETEDVFYTYK	R	G	95.00%	2.85	0.224	0	0	1	0	2	3,022.27	393	417	TRUE	
SNU216_PC1_01	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	99.80%	2	4	4	0.02%	1.12%	IRAEEEDLAAVPFLASDNEEEEDEKGNSGSLI	R	K	95.00%	6.69	0.588	0	0	1	1	2	3,712.69	2913	2945	TRUE	
SNU216_PC1_01	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	99.80%	2	4	4	0.02%	1.12%	KQSPVPALPIVVQLMEMGFSR	R	R	95.00%	6.02	0.477	0	1	1	0	2	2,407.23	2452	2472	TRUE	
SNU216_PC1_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.02%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	95.00%	3.74	0.416	0	1	0	0	2	2,275.94	908	927	TRUE	
SNU216_PC1_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.02%	3.72%	HKSDSPESDAER	R	E	95.00%	1.55	0.401	0	0	1	0	2	1,597.50	863	874	TRUE	
SNU216_PC1_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.02%	3.72%	HKSDSPESDAEREK	R	D	95.00%	2.44	0.336	0	0	1	0	2	1,854.63	863	876	TRUE	
SNU216_PC1_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.02%	3.72%	SDSPESDAER	K	E	94.50%	1.91	0.227	0	1	0	0	2	1,172.41	865	874	TRUE	
SNU216_PC1_01	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	2	2	3	0.02%	2.08%	NGILAIEGTGSDVDDDMSGDEK	R	Q	95.00%	2.72	0.202	0	0	1	0	2	2,317.94	1583	1604	TRUE	
SNU216_PC1_01	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	2	2	3	0.02%	2.08%	RPYTGNPQYTYNNWSPPVQSNETSNGYFL	R	S	95.00%	5.56	0.134	0	0	2	0	2	3,759.65	2429	2459	TRUE	
SNU216_PC1_01	Isoform 1 of Dynamin-binding protein	IPI00174025	177,350.00	99.00%	1	1	1	0.01%	1.46%	SHSDASVGSHSSTESEHGSSSPR	R	F	80.00%	4.27	0.0508	0	0	1	0	2	2,391.94	1351	1373	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	DKDVTLSPVK	K	A	95.00%	2.84	0.275	0	1	0	0	2	1,181.58	1525	1534	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	EQESDEEEEEEEEDEPSGATTR	K	S	95.00%	5.36	0.675	0	1	0	0	2	2,633.94	2983	3004	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	3.34	0.529	0	1	1	0	2	2,619.03	2774	2794	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	SSVDLEESSTK	R	S	94.40%	1.8	0.275	0	1	0	0	2	1,261.52	537	547	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	6.01	0.564	0	0	1	1	2	3,718.48	2973	3004	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	TDTGIVTVEQSPSSSK	K	L	90.70%	3.69	0.0449	0	1	0	0	2	1,715.77	2895	2910	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	TSVATSTEGKDKDVTLSPVK	K	A	95.00%	3.1	0.214	0	0	1	0	2	2,143.05	1515	1534	TRUE	
SNU216_PC1_01	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	10	0.06%	3.74%	YYSDSDDELTVEQR	K	R	95.00%	3.41	0.0798	0	1	0	0	2	1,799.70	480	493	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	9	0.06%	3.58%	DSAYISSSPLGSHQVFDFR	R	S	95.00%	4.17	0.0291	0	1	0	0	2	2,192.96	1361	1379	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	9	0.06%	3.58%	EYPSPPPSPLR	K	R	95.00%	2.11	0.358	0	2	0	0	2	1,399.57	1437	1447	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	9	0.06%	3.58%	PSQGLPVIQSPPSSPPHR	R	D	95.00%	3.07	0.415	0	2	3	0	2	1,960.96	1343	1360	TRUE	
SNU216_PC1_01	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	9	0.06%	3.58%	YQQETSVSQLPGRPKSPLSK	R	M	95.00%	3.81	0.218	0	0	1	0	2	2,310.15	1474	1493	TRUE	
SNU216_PC1_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.80%	2	3	4	0.02%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	5.86	0.521	0	0	2	1	2	3,734.84	125	160	TRUE	
SNU216_PC1_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.80%	2	3	4	0.02%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.58	0.381	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216_PC1_01	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	100.00%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGSSASGLAK	K	V	95.00%	4.4	0.198	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216_PC1_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	6	0.04%	8.20%	AAESPDQKDTEGGPK	K	E	95.00%	2.63	0.343	0	1	0	0	2	1,609.67	480	494	TRUE	
SNU216_PC1_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	6	0.04%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	4.87	0.447	0	2	0	0	2	2,279.96	480	500	TRUE	
SNU216_PC1_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	6	0.04%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.95	0.475	0	1	1	0	2	1,925.87	463	479	TRUE	
SNU216_PC1_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	5	6	0.04%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	3.74	0.436	0	1	0	0	2	2,270.04	460	479	TRUE	
SNU216_PC1_01	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	2	2	0.01%	1.16%	LSEAVWQPEEHYSSSPEK	K	I	95.00%	3.78	0.375	0	1	0	0	2	2,182.93	904	921	TRUE	
SNU216_PC1_01	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	2	2	0.01%	1.16%	WDSDNDEENEDVPISMK	K	E	95.00%	3.85	0.546	0	1	0	0	2	2,102.79	1968	1984	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	5	5	0.03%	2.98%	AVIVSSPK	K	A	95.00%	2.11	0.324	1	0	0	0	2	880.454	1396	1403	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	5	5	0.03%	2.98%	HLEAADKGHSPAQKPK	K	T	95.00%	3.53	0.476	0	1	1	0	2	1,793.87	596	611	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	5	5	0.03%	2.98%	IDLPEVQIEHDPELEKESPGLK	K	N	95.00%	4.86	0.345	0	0	1	0	2	2,595.26	1083	1104	TRUE	
SNU216_PC1_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	5	5	0.03%	2.98%	QSSVTQVTEQSPK	K	V	95.00%	2.96	0.299	0	1	0	0	2	1,498.68	118	130	TRUE	
SNU216_PC1_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	2	3	0.02%	5.82%	EPTPSIASDISLPIATQELR	K	Q	95.00%	2.59	0.403	0	2	0	0	2	2,218.10	723	742	TRUE	
SNU216_PC1_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	2	3	0.02%	5.82%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	84.70%	5.96	0	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216_PC1_01	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,395.60	100.00%	2	2	3	0.02%	1.40%	AESDGEEKEEVKEELGR	K	P	95.00%	3.33	0.431	0	0	1	0	2	2,013.87	2599	2615	TRUE	
SNU216_PC1_01	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,395.60	100.00%	2	2	3	0.02%	1.40%	SLSDNGQPGTPDPADSGGTSAK	K	E	95.00%	2.91	0.362	0	2	0	0	2	2,138.89	1732	1753	TRUE	
SNU216_PC1_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	99.80%	1	1	1	0.01%	2.12%	KFDHESSPGTDEDKSG	K	-	95.00%	2.66	0.501	0	1	0	0	2	1,975.64	739	754	TRUE	
SNU216_PC1_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	GADNDGSGSESGYTTPK	K	K	95.00%	2.88	0.384	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC1_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	NDSWGSFDLR	R	A	95.00%	2.31	0.373	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC1_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	RTSPQVLGSILK	K	S	95.00%	3.44	0.44	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC1_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	99.90%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.56	0.339	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC1_01	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	4	0.02%	4.12%	HSDNEAESIADALSSTSNILASEFFEEEKQESI	K	S	95.00%	7.62	0.159	0	0	1	0	2	3,819.68	1147	1180	TRUE	
SNU216_PC1_01	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	4	0.02%	4.12%	KHSDNEAESIADALSSTSNILASEFFEEEKQE	R	S	95.00%	5	0.208	0	0	0	1	2	3,947.77	1146	1180	TRUE	
SNU216_PC1_01	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	4	0.02%	4.12%	MAPPVDDLSPK	R	K	95.00%	1.88	0.277	0	1	0	0	2	1,249.55	1125	1135	TRUE	
SNU216_PC1_01	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	4	0.02%	4.12%	VAQNSPSVENIQTSQAEQAKPLQEDILMQI	K	R	95.00%	4.47	0.538	0	0	0	1	2	4,370.11	1718	1755	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	AASPSPQSVR	K	R	95.00%	2	0.372	1	1	0	0	2	1,079.49	745	754	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	APQTSSSPPPVR	R	R	95.00%	2.53	0.33	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	APQTSSSPPPVRR	R	G	95.00%	2.5	0.372	0	1	0	0	2	1,459.71	699	711	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	EKTPELPEPSVK	K	V	95.00%	2.35	0.326	0	2	0	0	2	1,433.69	218	229	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	ESPSPAPKPR	R	K	95.00%	1.75	0.372	0	1	0	0	2	1,145.54	444	453	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	HRPSPPATPPPK	R	T	95.00%	2.37	0.441	0	3	4	0	2	1,441.64	394	405	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	KAASPSPQSVR	K	R	95.00%	2.35	0.26	0	1	0	0	2	1,287.55	744	754	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	KEKTPELPEPSVK	K	V	95.00%	3.49	0.334	0	1	2	0	2	1,561.79	217	229	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	KETESEAEDNLDDLEK	K	H	95.00%	4.91	0.481	0	2	2	0	2	1,944.80	879	894	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.5	0.265	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.81	0.231	0	0	4	1	2	2,791.42	772	797	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	KVELSESEEDKGGK	R	M	95.00%	3.36	0.337	0	1	1	0	2	1,614.73	454	467	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RESPSPAPKPR	K	K	95.00%	3.29	0.389	0	2	1	0	2	1,301.64	443	453	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RLSPSASPPR	R	R	84.40%	1.8	0.206	0	1	0	0	2	1,307.49	382	391	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RQSPSPSTRPIR	R	R	84.50%	2.27	0.136	0	1	0	0	2	1,541.70	720	731	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RRTPSPPPR	R	R	95.00%	1.85	0.265	0	1	0	0	2	1,223.54	588	596	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RRTPTPPPR	R	R	86.20%	1.81	0.24	0	0	1	0	2	1,237.56	579	587	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RTASPPPPPK	R	R	85.00%	1.8	0.206	0	1	0	0	2	1,127.56	622	631	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RTPTPPPR	R	R	91.40%	1.76	0.223	0	1	0	0	2	1,081.46	580	587	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	RWQSPVTK	K	S	83.80%	2.01	0.139	0	1	0	0	2	1,081.52	544	551	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	SPSPAPPPR	R	R	95.00%	2.49	0.345	0	1	0	0	2	985.4504	569	577	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	SVSGSPEPAAK	R	K	95.00%	2.22	0.383	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	TASPPPPPK	R	R	95.00%	1.8	0.45	0	2	0	0	2	1,051.43	623	631	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	TRHSPTPQQSNR	K	T	95.00%	2.55	0.178	0	0	1	0	2	1,488.67	406	417	TRUE	
SNU216_PC1_01	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	25	34	49	0.30%	24.40%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.83	0.508	0	1	2	1	2	1,977.99	247	263	TRUE	
SNU216_PC1_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	73,141.50	98.80%	1	1	1	0.01%	1.39%	MSGFIYQGK	R	L	95.00%	2.19	0.25	0	1	0	0	2	1,110.47	339	347	TRUE	
SNU216_PC1_01	Formin binding protein 4	IPI00170778	110,063.40	99.80%	2	2	3	0.02%	2.86%	IDENSDKEMEVEESPEK	K	I	95.00%	4.29	0.313	0	2	0	0	2	2,087.84	493	509	TRUE	
SNU216_PC1_01	Formin binding protein 4	IPI00170778	110,063.40	99.80%	2	2	3	0.02%	2.86%	RPILQLSPPGPR	K	G	95.00%	2.26	0.205	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216_PC1_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	5	0.03%	6.81%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	3.15	0.477	0	2	1	0	2	2,392.90	948	966	TRUE	
SNU216_PC1_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	5	0.03%	6.81%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	84.20%	5.6	0.0109	0	0	1	0	2	4,426.91	1057	1096	TRUE	
SNU216_PC1_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	5	0.03%	6.81%	VIPEDASESEEKLDQK	K	E	95.00%	2.52	0.271	0	1	0	0	2	1,896.85	915	930	TRUE	
SNU216_PC1_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	3	3	0.02%	5.43%	ATDEDMQSLASLMSMK	K	Q	95.00%	3.5	0.371	0	1	0	0	2	1,837.74	164	179	TRUE	
SNU216_PC1_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	3	3	0.02%	5.43%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	3	0.267	0	0	1	0	2	1,927.99	389	406	TRUE	
SNU216_PC1_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	3	3	0.02%	5.43%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	5.62	0.463	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216_PC1_01	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.50%	2	2	2	0.01%	2.09%	KIPEPSPVTR	K	R	90.40%	1.77	0.232	0	1	0	0	2	1,203.61	1221	1230	TRUE	
SNU216_PC1_01	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.50%	2	2	2	0.01%	2.09%	KLSSSDAPAQDTGSSAAAVETDASR	R	T	95.00%	6.03	0.0552	0	1	0	0	2	2,502.10	838	862	TRUE	
SNU216_PC1_01	Isoform 1 of Trinucleotide repeat-containing 6B p	IPI00385511	186,687.20	99.80%	1	1	1	0.01%	0.97%	DEEPSGWEEPSPQSISR	K	K	95.00%	4.55	0.508	0	1	0	0	2	2,009.81	905	921	TRUE	
SNU216_PC1_01	TATA element modulatory factor	IPI00010586	123,173.80	98.90%	1	1	1	0.01%	1.28%	SVSEINSDDELSGK	R	G	95.00%	2.62	0.219	0	1	0	0	2	1,559.65	338	351	TRUE	
SNU216_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00034006	178,974.60	99.10%	1	1	1	0.01%	2.02%	GAAAADLLSSSPESQHGGTQSPGGGQPLL	R	V	82.50%	5.84	0.0122	0	0	1	0	2	3,224.52	1113	1145	TRUE	
SNU216_PC1_01	Isoform 1 of Alsin	IPI00295004	183,668.60	99.80%	1	1	1	0.01%	1.39%	SESPEPGYVVTSSGLLLPVLLPR	R	L	95.00%	4.25	0.0125	0	1	0	0	2	2,490.29	1462	1484	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	EMEKSFDEQNVPK	R	R	95.00%	2.9	0.232	0	1	0	0	2	1,660.69	309	321	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.81	0.457	0	1	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	SPSFGDPQLSPEAR	R	P	95.00%	3.16	0.426	0	2	0	0	2	1,567.68	261	274	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	SPSFGDPQLSPEARPR	R	C	95.00%	2.76	0.466	0	1	1	0	2	1,820.83	261	276	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.53	0.575	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	3.5	0.335	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	TPTGEGLLDSPSK	K	T	95.00%	2.48	0.249	0	1	0	0	2	1,381.63	685	697	TRUE	
SNU216_PC1_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	8	10	11	0.07%	5.87%	YGSFEEAEASYPILNR	K	A	95.00%	3.56	0.204	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	EMSPSPPAAQDPGGTALVSAR	K	E	95.00%	2.91	0.401	0	1	0	0	2	2,198.92	914	934	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	GDRDESDDGGVAQR	R	M	95.00%	2.49	0.408	0	1	0	0	2	1,556.60	544	557	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	2.94	0.29	0	0	1	1	2	2,030.85	281	298	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	HEDGTQSDSEDPLAK	K	A	95.00%	3.11	0.449	0	1	0	0	2	1,708.67	284	298	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	LGDASDTEAADGER	R	G	95.00%	2.58	0.288	0	1	0	0	2	1,486.57	1061	1074	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	MVIQLRPGRSPEPDGPAPAFLR	R	Q	95.00%	2.67	0.287	0	0	1	0	2	2,484.26	774	795	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	RRSPQEGPTWSR	R	G	95.00%	3.07	0.254	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216_PC1_01	KIAA0284 protein	IPI00180625	163,628.60	100.00%	8	9	9	0.06%	7.50%	SQSFTHSPSGDPK	R	A	86.80%	2.19	0.162	0	1	0	0	2	1,454.59	349	361	TRUE	
SNU216_PC1_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	5.03	0.48	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216_PC1_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.37	0.366	0	0	0	1	2	2,581.18	462	485	TRUE	
SNU216_PC1_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	85.40%	5.16	0.0444	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216_PC1_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	2	2	2	0.01%	10.60%	AEDGATPSPSNETPKK	K	K	95.00%	2.76	0.38	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216_PC1_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	2	2	2	0.01%	10.60%	GEAAAERPGEAAVASSPSK	K	A	95.00%	2.32	0.321	0	1	0	0	2	1,864.84	11	29	TRUE	
SNU216_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	99.80%	2	3	3	0.02%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	7.74	0.541	0	0	1	0	2	3,353.45	35	69	TRUE	
SNU216_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	99.80%	2	3	3	0.02%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	6.02	0.436	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216_PC1_01	132 kDa protein	IPI00002054	131,684.30	100.00%	3	4	4	0.02%	4.37%	HGLQLGAQSPGR	R	G	95.00%	2.25	0.232	0	0	1	0	2	1,300.62	1070	1081	TRUE	
SNU216_PC1_01	132 kDa protein	IPI00002054	131,684.30	100.00%	3	4	4	0.02%	4.37%	KAVVLPGGTATSPK	R	M	95.00%	3.38	0.441	0	1	0	0	2	1,405.75	443	456	TRUE	
SNU216_PC1_01	132 kDa protein	IPI00002054	131,684.30	100.00%	3	4	4	0.02%	4.37%	TPLDLFAHFGPEPGDHSDPLPPSAPSPTR	K	E	95.00%	6.46	0.59	0	0	1	1	2	3,132.45	179	207	TRUE	
SNU216_PC1_01	Isoform 2 of AP-3 complex subunit delta-1	IPI00289608,IPI00719680	136,654.70	100.00%	1	2	2	0.01%	1.53%	NTETSKSPEKDVPMVEK	R	K	95.00%	3.72	0.356	0	1	1	0	2	1,998.91	823	839	TRUE	
SNU216_PC1_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	1	1	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	2.83	0.36	0	1	0	0	2	1,885.77	117	134	TRUE	
SNU216_PC1_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.11%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	3.71	0.0884	0	0	1	0	2	2,540.96	240	261	TRUE	
SNU216_PC1_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.11%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	3.6	0.283	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC1_01	374 kDa protein	IPI00470478,IPI00642126	373,852.30	99.80%	1	1	1	0.01%	0.49%	DFATPSLHTSDQSPGK	R	H	95.00%	3.2	0.406	0	1	0	0	2	1,767.76	334	349	TRUE	
SNU216_PC1_01	pleckstrin homology domain containing, family G,	IPI00291711	128,247.70	98.90%	1	1	1	0.01%	1.29%	SPLSPTETFSWPDVR	R	E	95.00%	2.89	0.407	0	1	0	0	2	1,798.80	981	995	TRUE	
SNU216_PC1_01	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.80%	1	2	2	0.01%	1.65%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.7	0.567	0	1	1	0	2	2,376.03	513	532	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	GGIDNPAITSDQELDDK	K	K	95.00%	3.93	0.382	0	1	0	0	2	1,867.80	1209	1225	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	GGIDNPAITSDQELDDKK	K	M	95.00%	4.49	0.407	0	1	1	0	2	1,995.89	1209	1226	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	HRGSEEDPLLSPVETWK	R	G	95.00%	4.7	0.413	0	0	1	0	2	2,059.95	1192	1208	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	RTHSDASDDEAFTTSK	R	T	95.00%	3.37	0.336	0	2	1	0	2	1,847.74	1170	1185	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	THSDASDDEAFTTSK	R	T	95.00%	2.73	0.47	0	1	0	0	2	1,771.61	1171	1185	TRUE	
SNU216_PC1_01	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	6.42	0.0554	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	EQPEMEDANSEK	R	S	95.00%	2.52	0.381	0	1	0	0	2	1,486.54	11	22	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.72	0.405	0	0	1	0	2	3,454.32	11	39	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	EVIDASDKEGMSPAK	K	R	95.00%	3.15	0.274	0	1	0	0	2	1,656.72	82	96	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	EVIDASDKEGMSPAKR	K	T	95.00%	3.44	0.343	0	1	0	0	2	1,812.82	82	97	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	KKSPIINESR	R	S	95.00%	3.01	0.291	0	1	1	0	2	1,251.65	275	284	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	SINEENGEVSEDQSQNK	K	H	95.00%	3.12	0.226	0	2	0	0	2	1,986.79	23	39	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	SPSPDDILER	R	V	82.80%	1.73	0.216	0	1	0	0	2	1,208.52	578	587	TRUE	
SNU216_PC1_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	9	10	0.06%	8.94%	VQSGMGLILQGYESGSEEEGEIHEK	K	A	95.00%	4.11	0.147	0	0	1	0	2	2,786.22	129	153	TRUE	
SNU216_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	5	0.03%	15.70%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	8.27	0.588	0	0	1	0	2	4,229.03	209	247	TRUE	
SNU216_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	5	0.03%	15.70%	ISASSATR	R	E	93.60%	1.68	0.337	0	1	0	0	2	872.3873	257	264	TRUE	
SNU216_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	5	0.03%	15.70%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.04	0.486	0	2	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC1_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	4	4	5	0.03%	15.70%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	4.51	0.299	0	0	1	0	2	3,019.41	318	347	TRUE	
SNU216_PC1_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	2	2	2	0.01%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGKI	K	-	95.00%	4.61	0.469	0	0	1	0	2	3,916.52	929	962	TRUE	
SNU216_PC1_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	2	2	2	0.01%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	-	95.00%	6.56	0.581	0	0	0	1	2	4,157.70	927	962	TRUE	
SNU216_PC1_01	palladin	IPI00292009	122,047.90	99.80%	2	2	2	0.01%	2.62%	FIQKLRSQEVAEGSR	R	V	95.00%	2.89	0.184	0	0	1	0	2	1,827.91	273	287	TRUE	
SNU216_PC1_01	palladin	IPI00292009	122,047.90	99.80%	2	2	2	0.01%	2.62%	SRDSGDENEPIQER	R	F	95.00%	2.46	0.239	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	6	8	0.05%	2.10%	AAMYDIISSPSK	K	D	95.00%	2.73	0.334	0	1	0	0	2	1,362.60	342	353	TRUE	
SNU216_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	6	8	0.05%	2.10%	AAMYDIISSPSKDSTK	K	L	95.00%	3.74	0.0394	0	1	0	0	2	1,793.80	342	357	TRUE	
SNU216_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	6	8	0.05%	2.10%	AITSLLGGGSPK	K	N	95.00%	2.77	0.325	0	1	0	0	2	1,180.60	2649	2660	TRUE	
SNU216_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	6	8	0.05%	2.10%	DVPPDILLDSPER	R	K	95.00%	2.53	0.165	0	2	0	0	2	1,545.72	309	321	TRUE	
SNU216_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	6	8	0.05%	2.10%	DVPPDILLDSPERK	R	Q	95.00%	2.51	0.309	0	1	0	0	2	1,673.82	309	322	TRUE	
SNU216_PC1_01	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	6	8	0.05%	2.10%	NNTAAETEDDESDGEDR	K	G	95.00%	3.66	0.613	0	2	0	0	2	1,947.67	2661	2677	TRUE	
SNU216_PC1_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.37%	GDDDEESDEEAVK	K	K	95.00%	2.54	0.214	0	1	0	0	2	1,517.52	613	625	TRUE	
SNU216_PC1_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.37%	GDDDEESDEEAVKK	K	T	95.00%	2.99	0.196	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216_PC1_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.37%	WDEQTSNTKGDDDEESDEEAVKK	K	T	95.00%	3.25	0.346	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	99.80%	2	2	2	0.01%	3.20%	NLNIINTHAYNQPEDLVYSQPEMR	R	E	95.00%	3.94	0.282	0	0	1	0	2	2,939.34	468	491	TRUE	
SNU216_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	99.80%	2	2	2	0.01%	3.20%	PRPATSTPDLASHR	R	H	95.00%	3.4	0.458	0	0	1	0	2	1,585.75	573	586	TRUE	
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	6	6	0.04%	2.44%	HLQQGSESPMMIGELR	R	S	95.00%	2.95	0.251	0	0	1	0	2	1,892.84	2597	2612	TRUE	
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	6	6	0.04%	2.44%	TISAQDTLAYATALLNEK	R	E	95.00%	4.67	0.497	0	1	1	0	2	2,002.97	2559	2576	TRUE	
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	6	6	0.04%	2.44%	TLLSESSSQSSKSPSLSSK	K	Q	95.00%	3.63	0.0773	0	1	1	0	2	2,019.95	1129	1147	TRUE	
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	6	6	0.04%	2.44%	VSDQNSPVLPK	R	K	95.00%	2.52	0.308	0	1	0	0	2	1,263.60	2042	2052	TRUE	
SNU216_PC1_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	2	2	0.01%	3.39%	KRPESPPSILTPPVVPTADK	K	V	95.00%	2.8	0.26	0	0	1	0	2	2,209.16	254	273	TRUE	
SNU216_PC1_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	2	2	0.01%	3.39%	SASPSTQQEKHPTHHER	R	G	95.00%	3.65	0.426	0	0	0	1	2	2,036.89	220	236	TRUE	
SNU216_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	7	0.04%	7.22%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	2.82	0.412	0	2	1	0	2	2,233.05	538	560	TRUE	
SNU216_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	7	0.04%	7.22%	LSASTASELSPK	R	S	95.00%	2.65	0.397	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	7	0.04%	7.22%	RSSQPSPTAVPASDSPPTK	R	Q	93.60%	3.37	0.061	0	2	0	0	2	1,989.93	111	129	TRUE	
SNU216_PC1_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	7	0.04%	7.22%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.7	0.469	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	11	12	0.07%	4.88%	DTEQKELDQDMVTEDEDDPGSHKR	K	G	95.00%	4.83	0.518	0	0	1	1	2	2,897.18	720	743	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	11	12	0.07%	4.88%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	4.15	0.401	0	1	2	1	2	2,295.91	725	743	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	11	12	0.07%	4.88%	HSHGPLQADVFVELLSPR	R	R	95.00%	3.58	0.456	0	0	1	0	2	2,082.02	1339	1356	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	11	12	0.07%	4.88%	KRQSPEPSPVTLGR	R	R	95.00%	3.72	0.306	0	1	1	0	2	1,631.83	1411	1424	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	11	12	0.07%	4.88%	LGLHVTPSNVDQVSTPPAAK	K	K	95.00%	3.59	0.392	0	0	1	0	2	2,111.05	1534	1553	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	11	12	0.07%	4.88%	RQSPEPSPVTLGR	K	R	95.00%	2.67	0.31	0	1	1	0	2	1,503.73	1412	1424	TRUE	
SNU216_PC1_01	Matrin-3	IPI00017297	94,626.70	100.00%	1	2	2	0.01%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.32	0.353	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216_PC1_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	4	4	0.02%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	2.53	0.341	0	1	1	0	2	2,449.02	958	978	TRUE	
SNU216_PC1_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	4	4	0.02%	2.06%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	3.89	0.39	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.56	0.444	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	DLFDYSPPLHK	K	N	93.40%	1.97	0.216	0	1	0	0	2	1,411.63	507	517	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.36	0.549	0	3	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.66	0.495	0	0	2	0	2	2,726.13	369	391	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	KAEGEPQEESPLK	K	S	95.00%	2.25	0.293	0	1	1	0	2	1,521.68	168	180	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	KAEGEPQEESPLKSK	K	S	95.00%	3.97	0.374	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	KETQSPEQVKSEK	K	L	95.00%	3.51	0.334	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	LKDLFDYSPPLHK	K	N	95.00%	3.24	0.282	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	NTPSQHSHSIQHSPER	K	S	95.00%	2.93	0.322	0	1	1	1	2	1,921.83	256	271	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.82	0.514	0	3	0	0	2	2,257.84	392	409	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	4.12	0.464	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC1_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	12	17	23	0.14%	14.50%	YSPSQNSPIHHIPSR	R	R	95.00%	3.13	0.408	0	0	2	0	2	1,799.82	284	298	TRUE	
SNU216_PC1_01	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	99.80%	2	2	2	0.01%	1.36%	KLANDFPLDLSPVK	R	K	95.00%	3.67	0.343	0	1	0	0	2	1,636.83	678	691	TRUE	
SNU216_PC1_01	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	99.80%	2	2	2	0.01%	1.36%	NNSRVSPVPLSGAAAGTEQK	R	T	95.00%	3.29	0.333	0	0	1	0	2	2,062.99	2167	2186	TRUE	
SNU216_PC1_01	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.02%	5.26%	QSGDGQESTEPVENK	R	V	95.00%	3.3	0.5	0	1	0	0	2	1,684.67	147	161	TRUE	
SNU216_PC1_01	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.02%	5.26%	SEANDAVNSSTKEEK	K	G	95.00%	3.05	0.273	0	1	0	0	2	1,688.70	117	131	TRUE	
SNU216_PC1_01	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.02%	5.26%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	4.18	0.358	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216_PC1_01	Isoform 1 of ADAM 9 precursor	IPI00440932,IPI00747759	90,740.50	99.70%	2	2	2	0.01%	2.08%	HVSPVTPPR	R	E	93.00%	1.51	0.301	0	1	0	0	2	1,069.52	758	766	TRUE	
SNU216_PC1_01	Isoform 1 of ADAM 9 precursor	IPI00440932,IPI00747759	90,740.50	99.70%	2	2	2	0.01%	2.08%	HVSPVTPPREVPIYANR	R	F	95.00%	2.52	0.381	0	0	1	0	2	2,012.01	758	774	TRUE	
SNU216_PC1_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	4	4	4	0.02%	3.19%	KKDQATENTSPLNTPHTSANLVMTPQGQL	R	G	88.50%	5.13	0.0396	0	0	0	1	2	3,656.84	2366	2398	TRUE	
SNU216_PC1_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	4	4	4	0.02%	3.19%	NSSDQEGNNISSSSGHR	K	V	95.00%	3.61	0.451	0	1	0	0	2	1,855.72	275	291	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	4	4	4	0.02%	3.19%	NTPVSPGSTFPDVKPDLEDVDGVLFVSFESK	K	E	95.00%	4.51	0.517	0	0	1	0	2	3,402.60	641	671	TRUE	
SNU216_PC1_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	4	4	4	0.02%	3.19%	SILPYPVSPK	K	Q	95.00%	2.48	0.26	0	1	0	0	2	1,180.60	917	926	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	ASPGHSPHYFAASSPTSPNALPPAR	R	K	95.00%	3.68	0.327	0	0	1	0	2	2,597.19	1851	1875	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	DLAVPAALTPR	R	A	95.00%	2.48	0.435	0	1	0	0	2	1,203.61	1840	1850	TRUE	
SNU216_PC1_01	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	KASPPSGLWSPAYASH	R	-	95.00%	2.63	0.321	0	0	1	0	2	1,735.78	1876	1891	TRUE	
SNU216_PC1_01	zinc finger protein 609	IPI00307591	151,192.70	98.90%	2	2	2	0.01%	1.49%	APSLTDLVK	K	S	92.40%	1.73	0.244	0	1	0	0	2	1,023.51	1053	1061	TRUE	
SNU216_PC1_01	zinc finger protein 609	IPI00307591	151,192.70	98.90%	2	2	2	0.01%	1.49%	LVEPHSPSPSSK	R	F	85.10%	2.35	0.125	0	1	0	0	2	1,424.59	571	582	TRUE	
SNU216_PC1_01	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	3	3	3	0.02%	2.85%	EGVQGPLNVSLSEEGK	K	S	95.00%	4.41	0.601	0	1	0	0	2	1,722.79	1177	1192	TRUE	
SNU216_PC1_01	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	3	3	3	0.02%	2.85%	GAILSEEELAAMSPTAAAVAK	K	I	95.00%	4.07	0.473	0	1	0	0	2	2,110.01	368	388	TRUE	
SNU216_PC1_01	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	3	3	3	0.02%	2.85%	GNHVIRDEEVSSADISSSSEVISQHLVSYR	R	N	85.40%	5.74	0.0114	0	0	0	1	2	3,380.58	513	542	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	AALAPAKESPR	R	K	95.00%	2.13	0.386	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	DDPDGKQEAKPQQAAGMLSPK	K	T	95.00%	2.94	0.219	0	0	1	0	2	2,291.04	1162	1182	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	KLGAGEGGEASVSPEK	K	T	95.00%	3.55	0.329	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	KLSGDQPAAR	R	T	95.00%	2.12	0.313	0	1	0	0	2	1,122.53	1271	1280	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	LDSSPSVSSTLAAK	K	D	95.00%	2.41	0.368	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	LGAGEGGEASVSPEK	K	T	95.00%	3.51	0.505	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.13	0.257	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	PTSSPAKGPPQK	K	A	95.00%	2.91	0.237	0	1	0	0	2	1,274.61	503	514	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	QEAKPQQAAGMLSPK	K	T	95.00%	2.8	0.32	0	1	0	0	2	1,663.79	1168	1182	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	SLGNILQAKPTSSPAK	K	G	95.00%	3.19	0.421	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.26	0.401	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	TSQVGAASAPAKESPR	K	K	95.00%	3.86	0.502	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	TSQVGAASAPAKESPRK	K	G	95.00%	3.68	0.366	0	1	0	0	2	1,764.86	291	307	TRUE	
SNU216_PC1_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	14	16	16	0.10%	9.07%	TVANLLSGKSPR	K	K	95.00%	2.81	0.317	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	99.70%	1	1	1	0.01%	1.47%	AFLAELEQNSPK	K	I	95.00%	3.6	0.502	0	1	0	0	2	1,426.66	2947	2958	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	99.70%	1	1	1	0.01%	1.47%	LRESPGSEQTPFMTAPEGK	K	G	94.30%	2.09	0.225	0	1	0	0	2	2,141.96	1763	1781	TRUE	
SNU216_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	99.70%	1	1	1	0.01%	1.47%	QGSFSEDVISHK	R	G	95.00%	3.08	0.422	0	1	0	0	2	1,413.60	2360	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	99.70%	1	1	1	0.01%	1.47%	RQGSFSEDVISHK	K	G	95.00%	2.97	0.374	0	0	1	0	2	1,569.71	2359	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	99.70%	1	1	1	0.01%	1.47%	SLLEILNSAADILINSSEADEDGIRDEK	R	A	95.00%	4.83	0.421	0	0	1	0	2	3,110.48	3397	3424	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	99.70%	1	1	1	0.01%	1.47%	SMDAMSSPTK	K	T	95.00%	2.51	0.412	0	1	0	0	2	1,134.42	2925	2934	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_01	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	99.70%	1	1	1	0.01%	1.47%	SMDAMSSPTKTETVK	K	A	95.00%	2.18	0.279	0	1	0	0	2	1,708.72	2925	2939	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	DAQRLSPIPEEVPK	K	S	87.90%	2.39	0.204	0	0	1	0	2	1,658.82	558	571	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	4.93	0.674	0	1	1	0	2	2,897.99	1234	1256	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	IESDEEEDFENVGK	K	V	95.00%	3.08	0.456	0	2	0	0	2	1,719.66	1302	1315	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	KPDSPPKVLEPENK	K	Q	95.00%	4.48	0.351	0	1	2	0	2	1,657.82	704	717	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	KPYRIESDEEEDFENVGK	K	V	95.00%	4.03	0.251	0	1	1	0	2	2,263.98	1298	1315	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	LSPIPEEVPK	R	S	95.00%	1.93	0.249	0	1	0	0	2	1,188.59	562	571	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	RQINYKEDSESDGSQK	K	S	95.00%	2.05	0.292	0	1	0	0	2	2,123.77	1172	1187	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	STDEYSEADEEEEEEEGKPSR	R	K	87.50%	3.69	0.003	0	1	0	0	2	2,604.90	1236	1256	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	3.54	0.275	0	0	1	0	2	2,263.14	553	571	TRUE	
SNU216_PC1_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	10	14	18	0.11%	7.77%	VGSPLDYSLVDLPSTNGQSPGK	K	A	95.00%	3.07	0.41	0	2	2	0	2	2,311.09	1316	1337	TRUE	
SNU216_PC1_01	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	99.80%	1	2	2	0.01%	1.45%	RDSPLQGSGQQNSQAGQR	R	N	95.00%	4.55	0.476	0	1	1	0	2	1,993.88	637	654	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	AAVLSDSEDEEKASAK	K	K	95.00%	2.61	0.269	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	EAEDSDSDDNIKR	K	G	95.00%	2.28	0.308	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	FHSSDSEEEEHKK	K	Q	95.00%	1.7	0.338	0	1	0	0	2	1,828.59	360	372	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	HQASDSENEELPKPR	R	I	89.40%	2.12	0.195	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	MDSDEDEKEGEEEK	K	V	95.00%	2.95	0.331	0	2	0	0	2	1,749.60	375	388	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	NQASDSENEELPKPR	R	V	95.00%	2.34	0.306	0	1	0	0	2	1,873.74	284	298	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	TIASDSEEEAGKELSDK	K	K	87.90%	2.21	0.193	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216_PC1_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	8	8	9	0.06%	12.70%	TIASDSEEEAGKELSDKK	K	N	95.00%	2.34	0.25	0	1	0	0	2	2,096.87	435	452	TRUE	
SNU216_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	1.95%	AESGPDLR	R	Y	95.00%	1.87	0.307	0	1	0	0	2	924.3824	20	27	TRUE	
SNU216_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	1.95%	GLPSPYNMSSAPGSR	K	S	95.00%	2.48	0.272	0	1	0	0	2	1,600.68	2812	2826	TRUE	
SNU216_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	1.95%	SMSFQGIR	R	Q	95.00%	2.01	0.321	0	1	0	0	2	1,005.42	2207	2214	TRUE	
SNU216_PC1_01	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	4	4	4	0.02%	1.95%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.79	0.0147	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216_PC1_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	100.00%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	4.57	0.15	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216_PC1_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	100.00%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	R	L	95.00%	4.75	0.479	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	AVTPVPTK	R	T	93.40%	1.26	0.27	1	0	0	0	2	892.4541	524	531	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.53	0.5	0	1	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	5.32	0.518	0	0	1	1	2	3,607.64	74	113	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	ETESAPGSPR	K	A	95.00%	1.96	0.281	1	2	0	0	2	1,110.45	514	523	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.04	0.311	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	HSSNPPLESHVGWVMDSR	R	E	95.00%	4.21	0.476	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	QHYQKETESAPGSPR	R	A	94.70%	2.46	0.221	0	1	0	0	2	1,874.75	509	523	TRUE	
SNU216_PC1_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	8	11	14	0.09%	10.90%	SLPTTVPESPNYR	R	N	95.00%	3.24	0.392	0	3	0	0	2	1,620.67	766	778	TRUE	
SNU216_PC1_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	5.26%	KDSNELSDSAGEEDSADLKR	K	A	95.00%	3.72	0.16	0	0	1	0	2	2,325.91	709	728	TRUE	
SNU216_PC1_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	5.26%	KTESPIKLSPATPSR	K	K	95.00%	3.49	0.266	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC1_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	5.26%	SVAVSDEEEVEEEAER	R	R	95.00%	3.78	0.388	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	8	11	0.07%	4.68%	KKPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	4.9	0.416	0	0	1	0	2	2,321.10	1391	1413	TRUE	
SNU216_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	8	11	0.07%	4.68%	LPELDPRGSDEENLDSETSASTESLLEER	K	A	95.00%	6.39	0.362	0	0	1	0	2	3,298.45	1985	2013	TRUE	
SNU216_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	8	11	0.07%	4.68%	SPLEHSSPEK	R	E	95.00%	2.37	0.288	0	1	0	0	2	1,190.51	1109	1118	TRUE	
SNU216_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	8	11	0.07%	4.68%	SPLEHSSPEKEAPSPEK	R	T	95.00%	4.06	0.456	0	2	2	0	2	2,008.83	1109	1125	TRUE	
SNU216_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	8	11	0.07%	4.68%	VQEKPDSPGGSTQIQR	R	Y	95.00%	3.71	0.362	0	1	1	0	2	1,806.84	1284	1299	TRUE	
SNU216_PC1_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	8	11	0.07%	4.68%	VSPPAPGSAPETPEDK	R	S	95.00%	2.56	0.387	0	2	0	0	2	1,738.70	1260	1275	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	4	4	4	0.02%	3.80%	GMGEDFLSWNDLQATVSQVNAQTQEETD	R	V	81.30%	2.95	0.158	0	0	0	1	2	3,429.40	453	481	TRUE	
SNU216_PC1_01	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	4	4	4	0.02%	3.80%	HRSLTAHSLLPLAEK	R	Q	95.00%	2.59	0.288	0	0	0	1	2	1,752.92	1379	1393	TRUE	
SNU216_PC1_01	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	4	4	4	0.02%	3.80%	SLTAHSLLPLAEK	R	Q	95.00%	2.61	0.226	0	1	0	0	2	1,459.76	1381	1393	TRUE	
SNU216_PC1_01	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	4	4	4	0.02%	3.80%	VLAVSLINEALDKGSPEK	R	T	95.00%	3.69	0.338	0	1	0	0	2	1,963.02	482	499	TRUE	
SNU216_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	4	5	7	0.04%	2.48%	DVDDGSGSPHSPHQLSSK	R	S	95.00%	2.49	0.432	0	2	0	0	2	2,089.73	2022	2039	TRUE	
SNU216_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	4	5	7	0.04%	2.48%	EKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	4.11	0.3	0	0	1	0	2	2,774.27	1997	2021	TRUE	
SNU216_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	4	5	7	0.04%	2.48%	KEKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	5.7	0.521	0	0	1	1	2	2,902.36	1996	2021	TRUE	
SNU216_PC1_01	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	4	5	7	0.04%	2.48%	SGSGGGSAKEPQEER	R	S	95.00%	3.31	0.504	0	2	0	0	2	1,555.64	183	197	TRUE	
SNU216_PC1_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	8	0.05%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.62	0.425	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216_PC1_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	8	0.05%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.51	0.468	0	0	2	1	2	2,727.34	846	871	TRUE	
SNU216_PC1_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	8	0.05%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	4.42	0.412	0	0	3	1	2	3,113.52	846	874	TRUE	
SNU216_PC1_01	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	99.80%	2	2	2	0.01%	3.03%	ELDRYSLDSEDLYSR	R	N	95.00%	2.53	0.327	0	1	0	0	2	1,940.83	360	374	TRUE	
SNU216_PC1_01	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	99.80%	2	2	2	0.01%	3.03%	NSPAFLSTDLGDEDVGLGPPAPR	R	T	95.00%	4.44	0.521	0	1	0	0	2	2,405.10	503	525	TRUE	
SNU216_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	4	5	5	0.03%	3.22%	DFDSSEDEKHSK	K	K	95.00%	1.72	0.403	0	1	0	0	2	1,583.53	778	789	TRUE	
SNU216_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	4	5	5	0.03%	3.22%	ETFSSAEGTVDKDTTIMELR	R	D	95.00%	4.18	0.501	0	1	1	0	2	2,310.02	818	837	TRUE	
SNU216_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	4	5	5	0.03%	3.22%	KKDELSDYAEK	K	S	95.00%	3.07	0.278	0	1	0	0	2	1,405.62	988	998	TRUE	
SNU216_PC1_01	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	4	5	5	0.03%	3.22%	YVESDDEKPLDDETVNEDASNENSENDITM	K	D	82.70%	5.85	0	0	0	1	0	2	4,050.68	89	123	TRUE	
SNU216_PC1_01	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	3	3	0.02%	1.93%	ETDSPSTPGKDQR	K	S	95.00%	2.63	0.371	0	1	0	0	2	1,497.62	1081	1093	TRUE	
SNU216_PC1_01	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	3	3	0.02%	1.93%	GAGGSPVGVEEGLVNVGTGQK	K	L	95.00%	3.31	0.466	0	1	0	0	2	1,991.94	1321	1341	TRUE	
SNU216_PC1_01	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	3	3	3	0.02%	1.93%	TKETDSPSTPGKDQR	K	S	95.00%	3.05	0.18	0	1	0	0	2	1,726.76	1079	1093	TRUE	
SNU216_PC1_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	3	3	3	0.02%	2.92%	DRTPPHLLYSDR	R	D	95.00%	2.78	0.335	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216_PC1_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	3	3	3	0.02%	2.92%	DRTPPHLLYSDRDR	R	T	94.60%	2.46	0.174	0	0	0	1	2	1,820.84	530	543	TRUE	
SNU216_PC1_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	3	3	3	0.02%	2.92%	TFLEGDWTSPSK	R	S	95.00%	2.54	0.384	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.02%	3.35%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	4.21	0.342	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.02%	3.35%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	3.56	0.0882	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216_PC1_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.02%	3.35%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.95	0.481	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.10%	2	2	2	0.01%	2.64%	HLYISSSNPDLITR	R	R	81.30%	3	0.0457	0	1	0	0	2	1,695.81	584	597	TRUE	
SNU216_PC1_01	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.10%	2	2	2	0.01%	2.64%	RNSIEVAGLSHGLEGLR	K	L	95.00%	4.6	0.438	0	0	1	0	2	1,887.94	635	651	TRUE	
SNU216_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.60%	2	2	2	0.01%	1.57%	MSMTGAGKSPPSVQSLAMR	K	L	91.10%	2.67	0.193	0	0	1	0	2	2,015.91	132	150	TRUE	
SNU216_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.60%	2	2	2	0.01%	1.57%	SPPSVQSLAMR	K	L	95.00%	2.13	0.366	0	1	0	0	2	1,252.58	140	150	TRUE	
SNU216_PC1_01	Isoform 6 of Zinc finger CCHC domain-containing	IPI00336000,IPI00552923,IP	166,975.10	98.60%	1	1	1	0.01%	1.37%	DLTSLETTSEMEAGSPENKK	K	Q	93.10%	3.74	0.0423	0	1	0	0	2	2,246.97	158	177	TRUE	
SNU216_PC1_01	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	3	3	3	0.02%	4.59%	SEEDNEIESEEEVQPK	K	T	95.00%	3.35	0.371	0	1	0	0	2	1,970.78	219	234	TRUE	
SNU216_PC1_01	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	3	3	3	0.02%	4.59%	VHVQFFDDSPTR	R	G	95.00%	2.57	0.46	0	1	0	0	2	1,527.66	129	140	TRUE	
SNU216_PC1_01	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	3	3	3	0.02%	4.59%	VISDSESDIGGSDVEFKPDTK	R	E	95.00%	3.12	0.274	0	1	0	0	2	2,305.01	250	270	TRUE	
SNU216_PC1_01	Protein NEDD1	IPI00169345	71,967.20	99.70%	2	2	2	0.01%	6.97%	IASSVTAGVASSLSEKIADSIGNNR	K	Q	94.70%	2.56	0.216	0	0	1	0	2	2,687.17	555	579	TRUE	
SNU216_PC1_01	Protein NEDD1	IPI00169345	71,967.20	99.70%	2	2	2	0.01%	6.97%	LVTSGAESGNLNTSPSSNQTR	K	N	95.00%	4.97	0.0503	0	1	0	0	2	2,199.99	503	523	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.70%	2	2	2	0.01%	2.71%	APSPPLSQVFQTR	R	A	95.00%	2.64	0.249	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.70%	2	2	2	0.01%	2.71%	SSPVESLKK	R	E	94.40%	1.77	0.277	0	1	0	0	2	1,054.52	77	85	TRUE	
SNU216_PC1_01	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	99.80%	1	2	2	0.01%	1.80%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	E	95.00%	5.91	0.436	0	0	1	1	2	3,839.87	515	548	TRUE	
SNU216_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.57%	AFKPEETSSNSDPPSPPVLNNSHPVPR	R	S	95.00%	3.53	0.31	0	0	1	0	2	2,980.38	641	667	TRUE	
SNU216_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.57%	KPISDNSFSSDEEQSTGPIK	R	Y	95.00%	3.91	0.126	0	1	1	0	2	2,325.95	1295	1314	TRUE	
SNU216_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.57%	LDSSPVSSPR	R	K	95.00%	2.2	0.261	0	1	0	0	2	1,124.50	946	955	TRUE	
SNU216_PC1_01	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.57%	SFLESNYFTKPNLK	R	H	95.00%	2.68	0.176	0	1	0	0	2	1,767.84	1046	1059	TRUE	
SNU216_PC1_01	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	3	3	3	0.02%	1.07%	GGSWIQEINVAEK	K	N	95.00%	2.11	0.295	0	1	0	0	2	1,510.69	4024	4036	TRUE	
SNU216_PC1_01	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	3	3	3	0.02%	1.07%	KGGSWIQEINVAEK	K	N	95.00%	4.16	0.515	0	1	0	0	2	1,638.79	4023	4036	TRUE	
SNU216_PC1_01	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	3	3	3	0.02%	1.07%	SSFDWLTGSSTDPLVDHTSPSSDSLLFAHK	R	R	79.80%	5.7	0.0287	0	0	0	1	2	3,314.49	2654	2683	TRUE	
SNU216_PC1_01	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	99.80%	1	1	1	0.01%	0.75%	STELVLSPDMPR	R	T	95.00%	2.82	0.406	0	1	0	0	2	1,424.65	237	248	TRUE	
SNU216_PC1_01	Ribosome biogenesis protein BOP1	IPI00028955	83,629.30	99.80%	1	1	1	0.01%	2.14%	IGDEYAEDSSDEEDIR	R	N	95.00%	2.7	0.486	0	1	0	0	2	2,002.68	118	133	TRUE	
SNU216_PC1_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	3	3	0.02%	3.98%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	2.94	0.281	0	0	1	0	2	2,075.92	342	359	TRUE	
SNU216_PC1_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	3	3	0.02%	3.98%	KRSPSPSPTPEAK	R	K	95.00%	1.84	0.362	0	1	0	0	2	1,621.64	300	312	TRUE	
SNU216_PC1_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	3	3	0.02%	3.98%	TLTDEVNSPDSDRR	K	D	95.00%	3.29	0.328	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	ADIDVSGPKVDVDVPDVNIEGPDAK	K	L	95.00%	3.42	0.361	0	0	1	0	2	2,644.24	1750	1774	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	4.48	0.494	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	AEAPLPSPK	K	L	95.00%	1.97	0.299	0	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	AGLRVSAPEVSVGHK	K	G	95.00%	3.25	0.34	0	0	1	0	2	1,586.81	80	94	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	APDVDVNIAGPDAALKVDVKSPK	K	T	95.00%	7.11	0.537	0	0	1	0	2	2,399.22	2128	2150	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	ASLGSLEGEAEAEASSPK	K	G	95.00%	4.3	0.396	0	3	1	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.89	0.414	0	1	2	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	FGFGAKSPK	K	A	95.00%	2.07	0.303	0	1	0	0	2	1,018.48	2051	2059	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	FKAEAPLPSPK	K	L	88.60%	2.24	0.146	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.42	0.212	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	GHYEVTGSDDETGK	K	L	95.00%	2.74	0.524	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	2.75	0.318	0	1	4	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	95.00%	3.67	0.146	0	0	0	1	2	2,730.26	2905	2930	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	GKGGVTGSPEASISGSK	K	G	95.00%	3.66	0.168	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	GPAFNMASPESDFGINLK	K	G	95.00%	2.6	0.325	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	ISAPNVDFNLEGPK	R	V	95.00%	2.75	0.477	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	ISMQDVDLSLGSPK	K	L	95.00%	2.86	0.391	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	ISMSEVDLNVAAPK	R	V	95.00%	3.09	0.355	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	MSLPDVDLDLKGPK	K	M	95.00%	2.14	0.343	0	1	0	0	2	1,607.78	820	833	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	MYFPDVEFDIKSPK	K	F	95.00%	2.54	0.322	0	1	0	0	2	1,795.80	2159	2172	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	SKGHYEVTGSDDETGK	K	L	95.00%	3.08	0.418	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.19	0.0688	0	0	1	1	2	2,817.29	2903	2929	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	SNSFSDER	R	E	95.00%	2.29	0.41	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	VEAPSLDVHMDSPDINIEGPDVK	K	I	95.00%	4.29	0.395	0	0	1	0	2	2,557.15	2020	2042	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	VKTPEMIIQKPK	K	I	95.00%	2.65	0.257	0	0	2	0	2	1,491.80	241	252	TRUE	
SNU216_PC1_01	313 kDa protein	IPI00555610	312,537.10	100.00%	26	31	38	0.24%	11.20%	VSVGAPDLSLEASEGSIKLPK	K	M	95.00%	3.34	0.307	0	0	1	0	2	2,177.11	2456	2476	TRUE	
SNU216_PC1_01	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENR	R	S	95.00%	5.94	0.459	0	0	1	0	2	3,005.40	1141	1166	TRUE	
SNU216_PC1_01	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENRSVSGI	R	V	86.80%	5.22	0.0325	0	0	0	1	2	4,396.09	1141	1179	TRUE	
SNU216_PC1_01	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	SVSGFLHFDTATK	R	V	95.00%	2.68	0.36	0	1	0	0	2	1,489.67	1167	1179	TRUE	
SNU216_PC1_01	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	4	4	4	0.02%	2.31%	CAPAPPPPPPPPTSGPIGGLRSR	R	H	95.00%	3.41	0.217	0	0	1	0	2	2,356.16	20	42	TRUE	
SNU216_PC1_01	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	4	4	4	0.02%	2.31%	KGDIDNVKSPEETEK	K	D	95.00%	3.72	0.442	0	0	1	0	2	1,768.80	564	578	TRUE	
SNU216_PC1_01	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	4	4	4	0.02%	2.31%	SPILEEKDIPPLEFPK	R	S	95.00%	3.77	0.507	0	1	0	0	2	1,931.98	216	231	TRUE	
SNU216_PC1_01	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	4	4	4	0.02%	2.31%	VLDDVSIRSPETK	R	C	95.00%	3.15	0.339	0	1	0	0	2	1,538.75	1292	1304	TRUE	
SNU216_PC1_01	Rho guanine nucleotide exchange factor 11	IPI00157442,IPI00377085,IP	172,043.90	98.90%	1	1	1	0.01%	1.38%	NSVLSDPGLDSPRTSPVIMAR	R	V	95.00%	3.41	0.177	0	0	1	0	2	2,372.07	280	300	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	92.50%	3.89	0.0078	0	1	0	0	2	2,784.31	1467	1492	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	4.21	0.359	0	0	2	0	2	2,366.08	1320	1340	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	KIKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.55	0.324	0	0	1	0	2	2,494.17	1319	1340	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	KPSTSDDSDSNFEK	R	I	94.00%	2.61	0.185	0	2	0	0	2	1,636.64	1548	1561	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	KTQMAEVLPSPR	K	G	95.00%	2.71	0.368	0	1	0	0	2	1,436.70	1285	1296	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	NENTEGSPQEDGVELEGLK	K	Q	95.00%	3.48	0.398	0	1	1	0	2	2,124.90	1322	1340	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	SKGESDDFHMDFDSAVAPR	K	A	95.00%	3.07	0.343	0	0	1	0	2	2,190.88	1572	1590	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	SVVSDLEADDVK	K	G	95.00%	3.1	0.507	0	2	0	0	2	1,356.59	1455	1466	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	SVVSDLEADDVKGSVPLSSSPPATHFPDETE	K	K	95.00%	5.45	0.324	0	0	3	2	2	4,041.92	1455	1492	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	TDDEDFVPSDASPPK	K	T	95.00%	2.53	0.481	0	1	0	0	2	1,779.64	1424	1438	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	TQMAEVLPSPR	K	G	95.00%	3.44	0.442	0	1	0	0	2	1,308.60	1286	1296	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	VPDEEENEESDNEK	K	E	95.00%	2.97	0.296	0	1	0	0	2	1,742.63	1178	1191	TRUE	
SNU216_PC1_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	15	22	0.14%	8.81%	VPDEEENEESDNEKETEK	K	S	95.00%	3.84	0.524	0	2	0	0	2	2,229.86	1178	1195	TRUE	
SNU216_PC1_01	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	100.00%	2	2	2	0.01%	1.79%	GPSPSPVGSPASVAQSR	R	S	95.00%	2.85	0.303	0	1	0	0	2	1,660.77	694	710	TRUE	
SNU216_PC1_01	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	100.00%	2	2	2	0.01%	1.79%	SHHAPMSPGSSGGGGQPLAR	R	T	95.00%	3.9	0.337	0	0	1	0	2	1,967.85	357	376	TRUE	
SNU216_PC1_01	Nuclear ubiquitous casein and cyclin-dependent l	IPI00022145	27,296.70	100.00%	5	5	6	0.04%	22.60%	EEDEEPESPPEKK	K	T	95.00%	3.37	0.371	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC1_01	Nuclear ubiquitous casein and cyclin-dependent l	IPI00022145	27,296.70	100.00%	5	5	6	0.04%	22.60%	NSQEDSEDSEDKDVK	K	T	95.00%	2.76	0.329	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC1_01	Nuclear ubiquitous casein and cyclin-dependent l	IPI00022145	27,296.70	100.00%	5	5	6	0.04%	22.60%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	1.88	0.551	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216_PC1_01	Nuclear ubiquitous casein and cyclin-dependent l	IPI00022145	27,296.70	100.00%	5	5	6	0.04%	22.60%	TPSPKEEDEEPESPPEKK	K	T	92.70%	3.16	0.139	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216_PC1_01	Nuclear ubiquitous casein and cyclin-dependent l	IPI00022145	27,296.70	100.00%	5	5	6	0.04%	22.60%	VVDYSQFQESDDADEDYGR	K	D	95.00%	3.61	0.479	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,976.20	100.00%	3	3	3	0.02%	2.69%	KASISLTDDEVDDEEETIEEEEANEGVVDHQ	R	E	95.00%	7.69	0.0037	0	0	1	0	2	4,490.90	903	941	TRUE	
SNU216_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,976.20	100.00%	3	3	3	0.02%	2.69%	RSPPIKPLLGMNPFQK	K	N	95.00%	3.69	0.437	0	0	1	0	2	1,903.00	2439	2454	TRUE	
SNU216_PC1_01	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,976.20	100.00%	3	3	3	0.02%	2.69%	VAVNALAVGEPGTASKPASPIGGPTQEEK	R	T	95.00%	4.6	0.334	0	0	1	0	2	2,855.42	1678	1706	TRUE	
SNU216_PC1_01	Talin-1	IPI00298994	271,170.80	100.00%	2	2	2	0.01%	0.94%	SKDHFGLEGDEESTMLEDSVSPK	K	K	95.00%	6.54	0.416	0	0	1	0	2	2,617.10	405	427	TRUE	
SNU216_PC1_01	Talin-1	IPI00298994	271,170.80	100.00%	2	2	2	0.01%	0.94%	SKDHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	4.22	0.207	0	0	0	1	2	2,745.20	405	428	TRUE	
SNU216_PC1_01	Peregrin	IPI00023856,IPI00456620	138,186.80	100.00%	2	2	2	0.01%	3.62%	GAGWLSEDEDSPLDALDLVWAK	R	C	95.00%	4.06	0.513	0	1	0	0	2	2,467.11	1077	1098	TRUE	
SNU216_PC1_01	Peregrin	IPI00023856,IPI00456620	138,186.80	100.00%	2	2	2	0.01%	3.62%	RLPALSHSEGEEEDEEEEDEGK	R	G	95.00%	1.93	0.469	0	1	0	0	2	2,659.99	455	476	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	ESKGSPVFLPR	K	K	95.00%	1.93	0.315	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	93.10%	2.52	0.212	0	0	1	0	2	2,545.18	1069	1093	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	3.65	0.407	0	0	2	0	2	2,811.39	664	689	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.89	0.539	0	0	2	0	2	2,300.18	381	401	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	3.92	0.348	0	0	2	0	2	2,673.28	1068	1093	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	NSSPAPPQPAPGK	K	V	95.00%	2.83	0.503	0	1	0	0	2	1,327.60	1081	1093	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	QDDSPSGASYGQDYDLSPSR	K	S	90.20%	3.31	0.0504	0	1	0	0	2	2,304.83	233	252	TRUE	
SNU216_PC1_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	8.26%	RQSVSPPYKEPSAYQSSTR	R	S	95.00%	2.94	0.208	0	0	1	0	2	2,328.01	272	290	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	5	5	0.03%	2.91%	ESTPSEEPSPPHNSK	K	H	95.00%	3.06	0.327	0	1	0	0	2	1,702.70	1495	1509	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	5	5	0.03%	2.91%	KDSSSEVFSDAAK	R	E	95.00%	3.61	0.386	0	1	0	0	2	1,450.61	921	933	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	5	5	0.03%	2.91%	SKSYDEGLDDYREDAK	R	L	95.00%	3.63	0.283	0	0	1	0	2	1,970.80	878	893	TRUE	
SNU216_PC1_01	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	4	5	5	0.03%	2.91%	TQSPHSPKEESER	K	K	95.00%	2.47	0.489	0	1	1	0	2	1,591.67	1093	1105	TRUE	
SNU216_PC1_01	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	HLESSDEDEKMDEESAQIEEVLQR	K	G	95.00%	4.37	0.566	0	0	1	0	2	2,926.23	1792	1815	TRUE	
SNU216_PC1_01	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	SSLLPTDYLVEINK	R	I	95.00%	2.26	0.29	0	1	0	0	2	1,671.82	1865	1878	TRUE	
SNU216_PC1_01	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	1	1	1	0.01%	0.68%	STPAPKEEEKVNEEQWSLR	R	E	95.00%	2.94	0.218	0	0	1	0	2	2,337.08	636	654	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	ATSSHFSASEESMDFLDK	K	S	95.00%	3.29	0.171	0	1	0	0	2	2,068.82	473	490	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	DKASPEPEKDFSEK	K	A	95.00%	2.79	0.239	0	0	1	0	2	1,686.73	684	697	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	ELSESVQQQSTPVPLISPK	K	R	95.00%	3.14	0.502	0	1	1	0	2	2,147.06	550	568	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.75	0.504	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	LNFDMTASPK	K	I	83.20%	1.96	0.188	0	1	0	0	2	1,203.51	418	427	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	SPMSTNSSVHTGSDVEQDAEK	R	K	95.00%	3.51	0.298	0	0	1	0	2	2,285.92	451	471	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	SPMSTNSSVHTGSDVEQDAEKK	R	A	88.70%	2.83	0.147	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	STSPASEKADPGAVK	K	D	95.00%	2.53	0.22	0	1	0	0	2	1,604.66	669	683	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	TPPSTTVGSHSPPETPVLTR	K	S	87.80%	2.79	0.143	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216_PC1_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	10	11	11	0.07%	9.81%	VKLNFDMTASPK	K	I	95.00%	2.96	0.277	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216_PC1_01	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	4	4	4	0.02%	1.05%	ALSPVIPLIPR	R	D	95.00%	2.11	0.509	0	1	0	0	2	1,255.72	4461	4471	TRUE	
SNU216_PC1_01	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	4	4	4	0.02%	1.05%	GLEGKSPDTGPDWLK	K	Q	88.50%	2.36	0.198	0	1	0	0	2	1,679.77	4569	4583	TRUE	
SNU216_PC1_01	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	4	4	4	0.02%	1.05%	LEGPVSPDVEPGKEETEESK	K	K	95.00%	3.49	0.433	0	1	0	0	2	2,235.99	1391	1410	TRUE	
SNU216_PC1_01	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	4	4	4	0.02%	1.05%	NLTMSPLHK	R	R	95.00%	1.82	0.289	0	1	0	0	2	1,120.52	1327	1335	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	AADISLDNLVEGK	K	R	95.00%	2.59	0.394	0	1	0	0	2	1,424.67	1619	1631	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	EEKSVEYEGDLK	K	S	95.00%	2.76	0.382	0	1	0	0	2	1,505.64	811	822	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	83.70%	5.9	0.0124	0	0	1	0	2	4,155.93	282	317	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	ETAVPGPLGIEDISPNLSPDDK	R	S	95.00%	3.04	0.461	0	2	1	0	2	2,344.10	1418	1439	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	ETAVPGPLGIEDISPNLSPDDKSFSR	R	V	95.00%	2.93	0.266	0	0	1	0	2	2,821.33	1418	1443	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	GNLLHFPSSQGEEEK	R	E	95.00%	2.74	0.28	0	1	0	0	2	1,751.76	1065	1079	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	GNLLHFPSSQGEEEKEK	R	L	95.00%	3.42	0.412	0	1	0	0	2	2,008.90	1065	1081	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	95.00%	4.56	0.339	0	0	0	3	2	4,330.76	1206	1243	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	HEEQSNEDIPIAEQSSK	K	D	95.00%	2.56	0.238	0	1	0	0	2	2,020.85	223	239	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	3.56	0.273	0	1	1	0	2	2,641.12	541	563	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	KNGSTAVAESVASPQK	R	T	95.00%	4.08	0.404	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	LAILDQELEHKEQEAWEEATSEDSSVVIVDV	K	V	95.00%	6.7	0.578	0	0	0	1	2	4,286.04	736	772	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	LDTKEEKSVEYEGDLK	R	S	95.00%	3.22	0.29	0	1	1	0	2	1,962.89	807	822	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	LSDVDANTAIKHEEQSNEDIPIAEQSSK	R	D	95.00%	4.13	0.434	0	0	1	0	2	3,148.43	212	239	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	LVSPETEASEESLQFNLEKPATGER	K	K	95.00%	3.1	0.219	0	0	1	0	2	2,841.32	996	1020	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.18	0.554	0	1	2	0	2	2,555.14	1112	1134	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	7.02	0.602	0	1	3	0	2	2,881.31	1112	1137	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	NGSTAVAESVASPQK	K	T	95.00%	2.85	0.378	0	1	0	0	2	1,525.69	1022	1036	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	5.21	0.43	0	1	5	0	2	2,457.22	1090	1111	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	5.96	0.446	0	0	2	0	2	3,282.51	1464	1495	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	SDSPEIPFQAAAGPSDGLDASSPGNSFVGLF	R	V	95.00%	5.28	0.49	0	0	1	0	2	3,126.41	1465	1495	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	SEALSSVLDQEEAMEIK	R	E	95.00%	3.52	0.316	0	1	0	0	2	1,958.87	640	656	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	SEDMPFSPK	R	A	95.00%	2.07	0.292	0	2	0	0	2	1,117.43	264	272	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	SEDPPTTPIR	R	G	95.00%	2.25	0.333	0	1	0	0	2	1,192.52	1055	1064	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	SGTAETEPVEQDSSQPSLPLVR	K	A	95.00%	4.16	0.448	0	1	1	0	2	2,407.10	823	844	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	SNVSSPATPTASSSSSTTPTR	R	K	95.00%	3.85	0.0497	0	1	0	0	2	2,102.92	1636	1656	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	SPEPEVLSTQEDLFDQSNK	K	T	95.00%	4.55	0.51	0	1	0	0	2	2,242.98	299	317	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	STPFIVPSSPTEQEGR	R	Q	95.00%	2.81	0.271	0	1	1	0	2	1,811.82	377	392	TRUE	
SNU216_PC1_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	29	37	49	0.30%	23.70%	TSSGTSLSAMHSSGSSGK	R	G	94.30%	3.73	0.0321	0	1	0	0	2	1,748.72	1320	1337	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	5	5	6	0.04%	7.38%	GGNLPPVSPNDSGAK	K	I	95.00%	2.92	0.46	0	1	0	0	2	1,489.67	659	673	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	5	5	6	0.04%	7.38%	KKSVGGDSDTEDMR	R	S	95.00%	2.8	0.364	0	2	0	0	2	1,604.66	296	309	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	5	5	6	0.04%	7.38%	LIPITGGNARSPEDQLGK	K	H	95.00%	3.59	0.41	0	1	0	0	2	1,945.97	521	538	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	5	5	6	0.04%	7.38%	QKHEYELNSTPDKK	R	D	95.00%	2.77	0.217	0	0	1	0	2	1,796.82	414	427	TRUE	
SNU216_PC1_01	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	5	5	6	0.04%	7.38%	SPSDVNISAQPALSNFISQLEPEVFNSLVK	K	I	95.00%	3.21	0.352	0	0	1	0	2	3,310.62	756	785	TRUE	
SNU216_PC1_01	Zinc finger protein 217	IPI00025310	115,272.80	99.80%	2	2	2	0.01%	3.34%	AGAESPTMSVDGR	R	Q	95.00%	2.81	0.533	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216_PC1_01	Zinc finger protein 217	IPI00025310	115,272.80	99.80%	2	2	2	0.01%	3.34%	TKADVTPPPDGSTTHNLEVSPK	R	E	95.00%	4.39	0.358	0	0	1	0	2	2,371.12	643	664	TRUE	
SNU216_PC1_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	2	3	3	0.02%	12.50%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.26	0.558	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216_PC1_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	2	3	3	0.02%	12.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.32	0.623	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC1_01	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	3	3	4	0.02%	1.97%	EKKPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.52	0.485	0	0	0	1	2	2,717.25	518	542	TRUE	
SNU216_PC1_01	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	3	3	4	0.02%	1.97%	KPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.97	0.436	0	0	2	0	2	2,460.11	520	542	TRUE	
SNU216_PC1_01	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	3	3	4	0.02%	1.97%	TGASSLLNKSSPVK	R	K	95.00%	3.21	0.419	0	1	0	0	2	1,468.74	547	560	TRUE	
SNU216_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	4	4	0.02%	3.20%	LLPSAPQTLPDGPLASPAR	R	V	95.00%	2.97	0.449	0	1	0	0	2	1,981.02	1771	1789	TRUE	
SNU216_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	4	4	0.02%	3.20%	RSSLSSHSHQSQIYR	R	S	95.00%	2.62	0.186	0	0	1	0	2	1,852.84	1189	1203	TRUE	
SNU216_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	4	4	0.02%	3.20%	SNFSSGPGFPEYGYPADTVWPAMEQVSSRI	R	F	90.20%	6.34	0.0007	0	0	1	0	2	3,882.70	1232	1266	TRUE	
SNU216_PC1_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	4	4	4	0.02%	3.20%	SSLSSHSHQSQIYR	R	S	95.00%	3.18	0.382	0	0	1	0	2	1,696.74	1190	1203	TRUE	
SNU216_PC1_01	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	2	2	2	0.01%	1.64%	ILIPSDIESSK	R	S	95.00%	2.32	0.283	0	1	0	0	2	1,281.63	459	469	TRUE	
SNU216_PC1_01	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	2	2	2	0.01%	1.64%	WDSESNSERDVTK	K	N	95.00%	2.47	0.23	0	1	0	0	2	1,632.65	885	897	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	HFSTLKDDDLVEFSDLESEDDERPR	R	S	95.00%	4.48	0.31	0	0	0	1	2	3,074.33	1272	1296	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	NTSSDNSDVEVMPAQSPR	R	E	95.00%	2.33	0.324	0	2	0	0	2	2,013.82	412	429	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	TASPLPLRPDAPVEK	R	S	95.00%	2.65	0.271	0	1	0	0	2	1,670.85	1858	1872	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	TASPLPLRPDAPVEKSPEETATQVPSLESLTLI	R	L	95.00%	5.09	0.152	0	0	1	0	2	3,581.84	1858	1890	TRUE	
SNU216_PC1_01	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	VSPSDTTPLVSR	R	S	95.00%	2.67	0.48	0	1	0	0	2	1,338.63	1910	1921	TRUE	
SNU216_PC1_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	99.80%	2	2	2	0.01%	9.94%	KSLDSDESEDEEDDYQQK	K	R	95.00%	2.97	0.426	0	1	0	0	2	2,319.81	56	73	TRUE	
SNU216_PC1_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	99.80%	2	2	2	0.01%	9.94%	SLDSDESEDEEDDYQQK	K	R	95.00%	3.5	0.102	0	1	0	0	2	2,191.71	57	73	TRUE	
SNU216_PC1_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	1	1	1	0.01%	4.41%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.19	0.566	0	0	1	0	2	2,873.37	59	85	TRUE	
SNU216_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	13.60%	AGLESGAEPGDGDSDTTK	K	K	95.00%	2.49	0.348	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	13.60%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.16	0.334	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	13.60%	EVELVSE	K	-	95.00%	2.02	0.237	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	13.60%	KRESESESDETPPAAPQLIK	R	K	95.00%	2.81	0.147	0	1	0	0	2	2,372.04	447	466	TRUE	
SNU216_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	13.60%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	4.2	0.439	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216_PC1_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	6	7	7	0.04%	13.60%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	2.94	0.335	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC1_01	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	3	3	3	0.02%	3.53%	EIKDSTSQHDDDNISTTSGFSSR	K	A	95.00%	3.85	0.345	0	0	1	0	2	2,607.08	168	190	TRUE	
SNU216_PC1_01	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	3	3	3	0.02%	3.53%	NTSLPPLWSPEAER	K	S	87.90%	1.95	0.23	0	1	0	0	2	1,676.77	201	214	TRUE	
SNU216_PC1_01	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	3	3	3	0.02%	3.53%	VQMTSPSSTGSPMFK	K	F	95.00%	3.05	0.231	0	1	0	0	2	1,664.71	512	526	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	AGSSTPGDAPPAVAEVQGR	R	S	95.00%	3.52	0.592	0	2	0	0	2	1,846.83	2876	2894	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	DGGSGNSTIIVSR	R	S	95.00%	2.67	0.443	0	3	0	0	2	1,342.60	2350	2362	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	DLSMSEEDQMMR	R	A	95.00%	2.78	0.434	0	1	0	0	2	1,551.55	1357	1368	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	ESQLAHIKDEPPPLSPAPLTPATPSSLDPFFSF	R	E	95.00%	5.05	0.247	0	0	1	0	2	3,622.78	3896	3928	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	GSGTASDDEFENLR	R	I	95.00%	3.17	0.492	0	2	0	0	2	1,577.61	1893	1906	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	LGSSGLGSASSIQAAVR	R	Q	95.00%	3.6	0.132	0	1	0	0	2	1,640.80	3741	3757	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	5.74	0.0622	0	0	2	0	2	3,447.39	3796	3826	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	RRSSDPLGDTASNLGSAVDELMR	R	H	95.00%	5.79	0.517	0	0	1	0	2	2,527.16	646	668	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	RSSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.65	0.478	0	0	1	0	2	2,371.06	647	668	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	SDDELLDDFFHDQSTATSQAGTLSSIPTALTI	R	W	95.00%	3.37	0.276	0	0	1	0	2	3,519.58	2610	2641	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	SDGSGESAQPPEDSSPPASSESSSTR	R	D	95.00%	4.57	0.0263	0	1	0	0	2	2,616.02	2895	2920	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	SGEDESQEDVLMDEAPSNLSQASTLQANR	R	E	95.00%	4.16	0.354	0	0	1	0	2	3,201.35	2363	2391	TRUE	
SNU216_PC1_01	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	13	18	0.11%	6.08%	SHHAASTTTAPTPAAR	R	S	95.00%	2.88	0.408	0	1	0	0	2	1,656.75	1075	1090	TRUE	
SNU216_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.64%	GISPVVSEHR	K	K	95.00%	1.78	0.267	0	1	0	0	2	1,160.55	781	790	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.64%	MSSEGPPRMSPK	R	A	95.00%	2.36	0.29	0	1	0	0	2	1,383.58	614	625	TRUE	
SNU216_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.64%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	3.43	0.218	0	0	1	0	2	2,454.13	755	776	TRUE	
SNU216_PC1_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.64%	TSPSGGTWSSVVSGVPR	R	L	80.80%	3.47	0.0028	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.33%	AFMESPKQILDSAASLTGSK	K	R	95.00%	2.66	0.388	0	0	1	0	2	2,161.02	1675	1694	TRUE	
SNU216_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.33%	ELFQTPDHTEESTTDDKTTK	K	I	95.00%	2.97	0.23	0	0	1	0	2	2,403.02	2081	2100	TRUE	
SNU216_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.33%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	3.51	0.431	0	1	0	0	2	2,287.98	296	317	TRUE	
SNU216_PC1_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.33%	TPVQYSQQQNSPQK	K	H	95.00%	3.04	0.245	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC1_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	99.30%	1	1	1	0.01%	6.39%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.3	0.206	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216_PC1_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	99.80%	1	1	1	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	4.61	0.276	0	0	1	0	2	2,812.17	391	415	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	AETPTAAEDDNEGDKK	K	K	95.00%	2.86	0.271	0	1	0	0	2	1,770.71	299	314	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	INSSGESGDESDEFLQSR	R	K	94.70%	3.61	0.0463	0	1	0	0	2	2,116.77	180	197	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	KQSFDDNDSEELEDKDSK	K	S	95.00%	5.43	0.431	0	2	2	0	2	2,208.88	105	122	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	KWDGSEEDEDNSK	K	K	95.00%	3.04	0.251	0	1	0	0	2	1,618.59	160	172	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	KWDGSEEDEDNSKK	K	I	95.00%	2.91	0.218	0	1	2	0	2	1,746.69	160	173	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.88	0.524	0	3	2	0	2	2,113.87	206	224	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.23	0.368	0	1	1	0	2	2,080.79	106	122	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	VEMYSGSDDDDDFNK	K	L	95.00%	3.13	0.569	0	1	0	0	2	1,816.63	131	145	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.26	0.445	0	5	4	0	2	2,234.82	131	148	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	15	28	0.17%	8.44%	WDGSEEDEDNSK	K	K	95.00%	2.68	0.428	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216_PC1_01	dispatched B	IPI00304587	152,006.50	99.80%	2	3	5	0.03%	1.78%	ARQDSQGEEAEPLPASPEAPAHSPK	R	A	95.00%	5.19	0.466	0	0	3	1	2	2,759.17	1248	1272	TRUE	
SNU216_PC1_01	dispatched B	IPI00304587	152,006.50	99.80%	2	3	5	0.03%	1.78%	QDSQGEEAEPLPASPEAPAHSPK	R	A	95.00%	3.55	0.356	0	0	1	0	2	2,452.07	1250	1272	TRUE	
SNU216_PC1_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	3	3	0.02%	2.05%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.18	0.334	0	1	1	0	2	1,860.84	550	565	TRUE	
SNU216_PC1_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	3	3	0.02%	2.05%	TSMGGTQQQFVEGVR	R	M	95.00%	3.11	0.377	0	1	0	0	2	1,704.74	551	565	TRUE	
SNU216_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.59%	ASALLFSSDEEDQWNIPASQTHLASDSR	K	S	95.00%	6.16	0.478	0	0	1	0	2	3,155.40	507	534	TRUE	
SNU216_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.59%	GLFSDEEDSEDLFSSQSASK	K	L	95.00%	4.34	0.612	0	1	0	0	2	2,257.90	430	449	TRUE	
SNU216_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.59%	LAAQESSETEDMSVPR	R	G	95.00%	2.95	0.366	0	1	0	0	2	1,829.76	921	936	TRUE	
SNU216_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.59%	RTPSDDEEDNLFAPPK	R	L	95.00%	2.92	0.291	0	1	0	0	2	1,910.82	224	239	TRUE	
SNU216_PC1_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	5	5	0.03%	6.59%	TPSDDEEDNLFAPPK	R	L	95.00%	2.62	0.311	0	1	0	0	2	1,754.72	225	239	TRUE	
SNU216_PC1_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.45%	GPTSTSIDNIDGTPVRDER	R	S	95.00%	3.33	0.413	0	1	0	0	2	2,109.95	685	703	TRUE	
SNU216_PC1_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.45%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	5.07	0.0641	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216_PC1_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.45%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.09	0.474	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216_PC1_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.80%	1	2	2	0.01%	2.02%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.15	0.209	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	3	0.02%	5.22%	AETPTESVSEPEVATK	K	Q	95.00%	2.27	0.321	0	1	0	0	2	1,754.77	193	208	TRUE	
SNU216_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	3	0.02%	5.22%	TIQEVLEEQSEDEDR	R	E	93.90%	2.42	0.174	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216_PC1_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	3	0.02%	5.22%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.21	0.461	0	1	0	0	2	1,839.79	63	79	TRUE	
SNU216_PC1_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	1	1	1	0.01%	4.37%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.65	0.417	0	1	0	0	2	1,999.83	181	198	TRUE	
SNU216_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	4	6	6	0.04%	2.26%	ALQHTESPSETNKPHSK	K	S	95.00%	3.18	0.388	0	0	1	1	2	1,970.90	94	110	TRUE	
SNU216_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	4	6	6	0.04%	2.26%	HLAESESLLTSPPK	K	A	95.00%	2.93	0.418	0	1	0	0	2	1,588.76	932	945	TRUE	
SNU216_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	4	6	6	0.04%	2.26%	KRSESPPAELPSLR	K	R	95.00%	2.71	0.267	0	1	1	0	2	1,726.79	308	321	TRUE	
SNU216_PC1_01	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	4	6	6	0.04%	2.26%	SESPPAELPSLR	R	R	95.00%	1.82	0.335	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216_PC1_01	Isoform 1 of Bromodomain-containing protein 4	IPI00440727	152,216.90	99.80%	1	2	2	0.01%	2.35%	EAPSPLMIHSPQMSQFQSLTHQSPPQQNV	R	K	95.00%	5.24	0.307	0	0	1	1	2	3,677.72	1061	1092	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	APESDTGDEDQDQER	R	D	95.00%	3.62	0.573	0	1	0	0	2	1,771.63	575	589	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	DKSDSDTEGLLFSR	R	D	95.00%	3.27	0.45	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	GAPSQDDESGGIEDSPDR	K	G	95.00%	2.6	0.327	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	RLPSSPASPSPKGTPEK	R	A	95.00%	3.35	0.121	0	1	1	0	2	1,895.87	537	553	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	SDSDTEGLLFSR	K	D	95.00%	2.35	0.378	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	SEAEEGEVRTPTK	R	I	95.00%	2.89	0.283	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	4.25	0.437	0	0	1	0	2	2,794.21	430	455	TRUE	
SNU216_PC1_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	8	9	9	0.06%	12.50%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.88	0.484	0	0	1	0	2	2,460.13	639	659	TRUE	
SNU216_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	8	0.05%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	95.00%	3.28	0.166	0	0	1	0	2	2,486.00	175	197	TRUE	
SNU216_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	8	0.05%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.97	0.438	0	1	0	0	2	2,467.96	153	174	TRUE	
SNU216_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	8	0.05%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.93	0.332	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	8	0.05%	11.00%	SGDETPGSEVPGDK	R	A	95.00%	2.48	0.435	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	8	0.05%	11.00%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	4.33	0.546	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216_PC1_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	8	0.05%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.73	0.504	0	0	1	2	2	4,198.92	226	261	TRUE	
SNU216_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	6	9	0.06%	1.23%	GAGDGSDEEVDGK	K	A	95.00%	2.87	0.539	1	1	0	0	2	1,315.47	1937	1949	TRUE	
SNU216_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	6	9	0.06%	1.23%	GAGDGSDEEVDGKADGAEAK	K	P	95.00%	3.69	0.471	0	1	0	0	2	1,957.77	1937	1956	TRUE	
SNU216_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	6	9	0.06%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.49	0.538	0	3	0	0	2	2,254.90	1937	1959	TRUE	
SNU216_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	6	9	0.06%	1.23%	KGAGDGSDEEVDGK	R	A	95.00%	3.54	0.451	0	1	0	0	2	1,443.56	1936	1949	TRUE	
SNU216_PC1_01	Myosin-9	IPI00019502	226,406.30	100.00%	5	6	9	0.06%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	4.65	0.568	0	2	0	0	2	2,085.86	1936	1956	TRUE	
SNU216_PC1_01	Akt substrate AS250	IPI00719759	210,746.50	99.90%	2	4	6	0.04%	1.07%	RSSSPAELDLKDDLQQTQGK	R	C	95.00%	4.29	0.374	0	1	3	0	2	2,296.08	818	837	TRUE	
SNU216_PC1_01	Akt substrate AS250	IPI00719759	210,746.50	99.90%	2	4	6	0.04%	1.07%	SSSPAELDLKDDLQQTQGK	R	C	95.00%	4.18	0.521	0	1	1	0	2	2,139.98	819	837	TRUE	
SNU216_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	6	6	0.04%	5.27%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	5.27	0.442	0	0	1	0	2	2,816.12	796	819	TRUE	
SNU216_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	6	6	0.04%	5.27%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	5.69	0.551	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	6	6	0.04%	5.27%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.33	0.524	0	0	1	1	2	4,403.92	885	926	TRUE	
SNU216_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	6	6	0.04%	5.27%	SPPEGDTTLFLSR	R	L	83.80%	2.12	0.207	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216_PC1_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	5	6	6	0.04%	5.27%	TASPLEHILQTLFGK	K	K	95.00%	3.18	0.469	0	1	0	0	2	1,734.88	1310	1324	TRUE	
SNU216_PC1_01	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.80%	2	2	3	0.02%	2.28%	LPNTYPNSSSPGPGGLGGSVHYATMAR	R	S	95.00%	6.71	0.0182	0	0	1	0	2	2,768.25	855	881	TRUE	
SNU216_PC1_01	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.80%	2	2	3	0.02%	2.28%	SLSNSNPDISGTPTSPDDEVR	R	S	95.00%	4.77	0.0268	0	2	0	0	2	2,267.97	896	916	TRUE	
SNU216_PC1_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	3	0.02%	1.68%	AEDSDSEPEPEDNVR	K	L	95.00%	2.68	0.393	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC1_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	3	0.02%	1.68%	KAEDSDSEPEPEDNVR	R	L	95.00%	3.16	0.412	0	2	0	0	2	1,976.72	495	510	TRUE	
SNU216_PC1_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	3	3	3	0.02%	3.94%	EAALPPVSPLK	R	A	93.60%	2.04	0.204	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216_PC1_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	3	3	3	0.02%	3.94%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	R	P	95.00%	4.03	0.447	0	0	1	0	2	3,174.59	306	333	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	3	3	3	0.02%	3.94%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	4.38	0.327	0	0	1	0	2	2,623.30	1073	1096	TRUE	
SNU216_PC1_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	23.90%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.24	0.586	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC1_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	23.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.5	0.375	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216_PC1_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	23.90%	NDKSEEEQSSSSVK	K	K	95.00%	3.78	0.469	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216_PC1_01	Fragile site-associated protein	IPI00398012	555,294.50	99.80%	2	2	2	0.01%	0.62%	MQPQSSGSLRSNAGAEK	K	G	88.20%	2.19	0.178	0	1	0	0	2	1,907.77	1798	1814	TRUE	
SNU216_PC1_01	Fragile site-associated protein	IPI00398012	555,294.50	99.80%	2	2	2	0.01%	0.62%	VVFENEQDNSSLTK	K	T	95.00%	2.57	0.195	0	1	0	0	2	1,689.74	2745	2758	TRUE	
SNU216_PC1_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	6	0.04%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	5.05	0.512	0	1	4	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC1_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	6	0.04%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	2.77	0.357	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	EHQEMDEGSQSLEK	K	L	95.00%	2.76	0.341	0	1	0	0	2	1,726.66	1322	1335	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	EVSPSDVR	R	E	95.00%	1.9	0.232	0	1	0	0	2	968.4085	1978	1985	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	ISFVEEDVHPK	R	W	95.00%	2.19	0.278	0	1	0	0	2	1,379.62	1266	1276	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	NLSFNELYPSGTLK	R	L	95.00%	2.86	0.396	0	1	0	0	2	1,662.78	1575	1588	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	SLPSSSQLKGSPQAISR	R	A	95.00%	3.15	0.302	0	1	1	0	2	1,822.91	1185	1201	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	STPLASPSPSPGRSPQR	R	L	95.00%	3.27	0.419	0	1	1	0	2	1,801.86	1244	1260	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	TTSFFLNSPEK	R	E	95.00%	2.65	0.32	0	1	0	0	2	1,350.60	1311	1321	TRUE	
SNU216_PC1_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	100.00%	8	10	10	0.06%	4.00%	TTSFFLNSPEKEHQEMDEGSQSLEK	R	L	95.00%	5.72	0.193	0	0	1	0	2	2,978.28	1311	1335	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	ERPISLGIFPLPAGDDGLLTPDAQK	K	G	95.00%	3.6	0.448	0	0	2	0	2	2,585.34	199	222	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	LHQLSGSDQLESTAHSR	K	I	95.00%	4.45	0.441	0	0	2	0	2	1,945.88	179	195	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	NVSTGSAENEEKSEVQAIIESTPELDMDKDL	R	G	95.00%	6.44	0.479	0	0	1	0	2	3,893.75	313	347	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	SASQSSLDKLDQELK	R	E	95.00%	3.98	0.417	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	SASQSSLDKLDQELKEQQK	R	E	95.00%	4.57	0.396	0	1	2	0	2	2,242.06	714	732	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	SEVQAIIESTPELDMDKDLSGYKGSSTPTK	K	G	82.60%	5.84	0	0	0	1	0	2	3,306.53	325	354	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	SHTSLKDELSDVSQGGSK	R	A	95.00%	3.52	0.464	0	0	1	0	2	1,954.88	242	259	TRUE	
SNU216_PC1_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	8	10	13	0.08%	13.10%	TKLHQLSGSDQLESTAHSR	R	I	95.00%	4.26	0.461	0	0	1	1	2	2,175.02	177	195	TRUE	
SNU216_PC1_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	3	3	3	0.02%	3.91%	LGASNSPGQPNSVK	K	R	95.00%	2.91	0.385	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC1_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	3	3	3	0.02%	3.91%	LGASNSPGQPNSVKR	K	K	95.00%	2.1	0.28	0	1	0	0	2	1,591.76	672	686	TRUE	
SNU216_PC1_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	3	3	3	0.02%	3.91%	QEPESEEEEEEKQEKEEK	K	R	95.00%	2.35	0.251	0	0	1	0	2	2,342.94	579	596	TRUE	
SNU216_PC1_01	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	2	2	2	0.01%	1.77%	LTAGVPDTPTR	R	L	95.00%	2.38	0.215	0	1	0	0	2	1,207.57	1453	1463	TRUE	
SNU216_PC1_01	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	2	2	2	0.01%	1.77%	MTTTSAAAYGTHLSPHVPHR	R	V	95.00%	3	0.233	0	0	0	1	2	2,215.01	1391	1410	TRUE	
SNU216_PC1_01	Myosin-10	IPI00397526	228,945.20	100.00%	2	2	2	0.01%	1.01%	QLHLEGASLELSDDDTESK	R	T	95.00%	3.27	0.123	0	1	0	0	2	2,166.94	1945	1963	TRUE	
SNU216_PC1_01	Myosin-10	IPI00397526	228,945.20	100.00%	2	2	2	0.01%	1.01%	RQLHLEGASLELSDDDTESK	R	T	95.00%	4.61	0.342	0	0	1	0	2	2,323.05	1944	1963	TRUE	
SNU216_PC1_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.37	0.332	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC1_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.55	0.296	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216_PC1_01	YTH domain containing 2	IPI00010200	160,265.80	100.00%	1	1	1	0.01%	1.12%	VDGIPNDSSDSEMEDK	R	T	95.00%	2.85	0.369	0	1	0	0	2	1,817.68	1082	1097	TRUE	
SNU216_PC1_01	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	100.00%	3	3	3	0.02%	2.82%	ETSFGSSENITMTSLSK	K	V	95.00%	3.44	0.408	0	1	0	0	2	1,898.81	930	946	TRUE	
SNU216_PC1_01	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	100.00%	3	3	3	0.02%	2.82%	KETSFGSSENITMTSLSK	K	V	95.00%	2.49	0.219	0	1	0	0	2	2,026.90	929	946	TRUE	
SNU216_PC1_01	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	100.00%	3	3	3	0.02%	2.82%	SGSLDDSFSDFQELPASSK	K	T	95.00%	3.05	0.435	0	1	0	0	2	2,096.87	467	485	TRUE	
SNU216_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	7	0.04%	2.35%	KHSPSPPPPTPTESR	R	K	95.00%	3.99	0.538	0	2	3	0	2	1,774.76	326	340	TRUE	
SNU216_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	7	0.04%	2.35%	NEEPVRSPER	K	R	90.40%	2.11	0.218	0	1	0	0	2	1,292.56	304	313	TRUE	
SNU216_PC1_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	7	0.04%	2.35%	RKHSPSPPPPTPTESR	K	K	95.00%	3.2	0.353	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216_PC1_01	Phosphatidylserine synthase 1	IPI00010746	55,529.10	99.80%	2	5	5	0.03%	4.65%	GSEDSPPKHAGNNESHSSR	K	R	95.00%	3.39	0.347	0	1	1	1	2	2,072.84	438	456	TRUE	
SNU216_PC1_01	Phosphatidylserine synthase 1	IPI00010746	55,529.10	99.80%	2	5	5	0.03%	4.65%	GTKGSEDSPPKHAGNNESHSSR	K	R	95.00%	3.01	0.422	0	0	1	1	2	2,438.97	435	456	TRUE	
SNU216_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	8	12	0.07%	2.35%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.26	0.442	0	1	0	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	8	12	0.07%	2.35%	GYYSPYSVSGSGSTAGSR	K	T	93.30%	3.6	0.0369	0	1	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	8	12	0.07%	2.35%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	3.85	0.14	0	1	4	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	8	12	0.07%	2.35%	SDEGQLSPATR	R	G	95.00%	2.16	0.328	0	1	0	0	2	1,240.52	714	724	TRUE	IPI00398002,IPI00398779
SNU216_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	8	12	0.07%	2.35%	SLQEEHVAVAQLR	R	E	93.80%	2.1	0.21	0	1	0	0	2	1,559.76	1732	1744	TRUE	IPI00398002,IPI00398779
SNU216_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	8	12	0.07%	2.35%	SRSSSVGSSSSYPISPAVSR	R	T	79.80%	3.26	0.0219	0	1	0	0	2	2,157.92	4382	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC1_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	8	12	0.07%	2.35%	SSSVGSSSSYPISPAVSR	R	T	95.00%	2.75	0.348	0	2	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	6	6	0.04%	3.26%	EKVASDTEEADR	R	T	95.00%	2.12	0.221	0	1	0	0	2	1,429.58	652	663	TRUE	
SNU216_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	6	6	0.04%	3.26%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	95.00%	4.47	0.153	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	6	6	0.04%	3.26%	TSPINEDIR	R	S	90.70%	1.69	0.246	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	6	6	0.04%	3.26%	VASDTEEADR	K	T	95.00%	2.4	0.434	1	1	0	0	2	1,172.45	654	663	TRUE	
SNU216_PC1_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	6	6	0.04%	3.26%	VASDTEEADRTSSK	K	K	95.00%	2.45	0.231	0	1	0	0	2	1,575.65	654	667	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	DKEVSDDEAEEK	R	E	86.10%	2.1	0.197	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	DKEVSDDEAEEKEDK	R	E	95.00%	2.81	0.347	0	0	1	0	2	1,845.73	349	363	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.27	0.381	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216_PC1_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.88	0.419	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	6	7	8	0.05%	8.09%	HSQPSPEPHSPTEPPAWGSSIVK	K	V	95.00%	3.99	0.329	0	0	2	0	2	2,532.16	728	750	TRUE	
SNU216_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	6	7	8	0.05%	8.09%	KSSTGSISNVLFSTQDPVEDAVFGEATNLKK	R	N	87.80%	6.11	0.0019	0	0	1	0	2	3,349.62	762	792	TRUE	
SNU216_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	6	7	8	0.05%	8.09%	NLADEIESYMNLKSPLGSK	R	S	95.00%	2.44	0.36	0	0	1	0	2	2,189.02	995	1013	TRUE	
SNU216_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	6	7	8	0.05%	8.09%	RSSLPLDHGSPAQENPESEK	R	S	95.00%	4.9	0.399	0	0	1	0	2	2,258.01	1040	1059	TRUE	
SNU216_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	6	7	8	0.05%	8.09%	SSPVPEMLEESQELLEPVVDDVPK	R	T	95.00%	4.09	0.56	0	1	1	0	2	2,746.28	889	912	TRUE	
SNU216_PC1_01	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	6	7	8	0.05%	8.09%	STSLSALVR	R	S	95.00%	1.98	0.339	0	1	0	0	2	1,013.50	1087	1095	TRUE	
SNU216_PC1_01	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.80%	2	2	2	0.01%	2.07%	GKASPFEEDQNR	K	D	95.00%	2.13	0.323	0	1	0	0	2	1,457.61	133	144	TRUE	
SNU216_PC1_01	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.80%	2	2	2	0.01%	2.07%	QASPTEVVER	R	L	95.00%	2.26	0.308	0	1	0	0	2	1,195.54	180	189	TRUE	
SNU216_PC1_01	CAD protein	IPI00301263	242,982.50	100.00%	3	4	4	0.02%	2.43%	IHRASDPGLPAEEPK	R	E	95.00%	3.38	0.25	0	0	1	0	2	1,696.81	1855	1869	TRUE	
SNU216_PC1_01	CAD protein	IPI00301263	242,982.50	100.00%	3	4	4	0.02%	2.43%	IHRASDPGLPAEEPKEK	R	S	95.00%	3.36	0.285	0	1	1	0	2	1,953.94	1855	1871	TRUE	
SNU216_PC1_01	CAD protein	IPI00301263	242,982.50	100.00%	3	4	4	0.02%	2.43%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	5.22	0.394	0	0	0	1	2	4,052.11	1898	1934	TRUE	
SNU216_PC1_01	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	100.00%	2	2	3	0.02%	3.98%	ADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	3.8	0.467	0	0	1	0	2	3,164.27	543	570	TRUE	
SNU216_PC1_01	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	100.00%	2	2	3	0.02%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.09	0.315	0	0	2	0	2	3,320.37	542	570	TRUE	
SNU216_PC1_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	99.80%	1	1	1	0.01%	2.98%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	3.71	0.443	0	0	1	0	2	2,322.91	616	635	TRUE	
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	99.60%	2	2	3	0.02%	7.72%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	6.1	0.581	0	0	2	0	2	3,107.21	566	591	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	99.60%	2	2	3	0.02%	7.72%	SWASLFHDSKPSSSSPVAYVETKYSPPAISPL	K	Q	91.00%	5.23	0.042	0	0	0	1	2	3,958.92	346	381	TRUE	
SNU216_PC1_01	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	3	3	3	0.02%	1.36%	DISLDSELHDLR	R	L	95.00%	2.21	0.265	0	1	0	0	2	1,492.67	462	473	TRUE	
SNU216_PC1_01	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	3	3	3	0.02%	1.36%	LSVHDMKPLDSPGR	K	R	95.00%	2.65	0.326	0	0	1	0	2	1,631.76	1881	1894	TRUE	
SNU216_PC1_01	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	3	3	3	0.02%	1.36%	LSVHDMKPLDSPGRR	K	K	95.00%	2.46	0.239	0	0	1	0	2	1,787.86	1881	1895	TRUE	
SNU216_PC1_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	3	3	0.02%	3.75%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	3.62	0.389	0	0	1	0	2	2,778.05	587	608	TRUE	
SNU216_PC1_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	3	3	0.02%	3.75%	STEDLSPQK	K	S	94.40%	1.87	0.254	0	1	0	0	2	1,084.46	852	860	TRUE	
SNU216_PC1_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	3	3	0.02%	3.75%	TEDVMFISDNESFNPSLWEEQR	R	K	95.00%	3.43	0.368	0	0	1	0	2	2,753.14	433	454	TRUE	
SNU216_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	10	10	0.06%	14.30%	DLDEEGSEKELHENVLDK	K	E	95.00%	3.21	0.235	0	0	1	0	2	2,178.94	573	590	TRUE	
SNU216_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	10	10	0.06%	14.30%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	5.2	0.437	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	10	10	0.06%	14.30%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	3.48	0.525	0	1	1	0	2	2,600.01	696	716	TRUE	
SNU216_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	10	10	0.06%	14.30%	LFEESDDKEDEDADGK	K	E	95.00%	3.22	0.201	0	1	0	0	2	1,921.72	672	687	TRUE	
SNU216_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	10	10	0.06%	14.30%	LFEESDDKEDEDADGKEVEDADEK	K	L	92.90%	2.85	0.162	0	0	1	0	2	2,837.11	672	695	TRUE	
SNU216_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	10	10	0.06%	14.30%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.36	0.425	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216_PC1_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	7	10	10	0.06%	14.30%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.42	0.276	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	ERGSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.52	0.614	0	0	1	0	2	3,198.54	273	302	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	GQSQLSNPTDDSWK	R	G	92.00%	2.04	0.214	0	1	0	0	2	1,722.64	1523	1536	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	GSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.38	0.562	0	1	1	1	2	2,913.40	275	302	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	HLDVDLDRQSLSSIDKNPSER	K	G	95.00%	3.24	0.277	0	0	0	1	2	2,504.18	1502	1522	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	PQSPVIQAAAVSPK	K	F	95.00%	2.71	0.282	0	1	0	0	2	1,472.75	216	229	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	QSLSSADNLESDAQGHQVAAR	R	F	95.00%	4.06	0.403	0	0	1	0	2	2,263.99	345	365	TRUE	
SNU216_PC1_01	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	QSLSSIDKNPSER	R	G	95.00%	1.98	0.316	0	1	0	0	2	1,540.70	1510	1522	TRUE	
SNU216_PC1_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	3.54%	MESSFGSPSKQESSESLPK	K	E	95.00%	4.1	0.327	0	0	1	0	2	2,121.90	471	489	TRUE	
SNU216_PC1_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	3.54%	RHEHPPNPPVSPGK	K	T	95.00%	3.22	0.267	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216_PC1_01	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	3.54%	SKSEDMDNVQSK	R	R	95.00%	2.97	0.337	0	1	0	0	2	1,447.58	557	568	TRUE	
SNU216_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	7	7	0.04%	7.82%	NPSDSAVHSPFTK	K	R	95.00%	2.72	0.374	0	1	0	0	2	1,466.63	410	422	TRUE	
SNU216_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	7	7	0.04%	7.82%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.47	0.3	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	7	7	0.04%	7.82%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.48	0.478	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216_PC1_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	7	7	0.04%	7.82%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	3.99	0.0916	0	1	1	0	2	2,612.09	462	486	TRUE	
SNU216_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	5	7	7	0.04%	3.83%	AFGPGLQGGSAGSPAR	K	F	95.00%	2.82	0.38	0	1	0	0	2	1,509.68	1071	1086	TRUE	
SNU216_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	5	7	7	0.04%	3.83%	EGPYSISVLYGDEEVPRSPFK	R	V	95.00%	3.85	0.441	0	1	1	0	2	2,449.13	1515	1535	TRUE	
SNU216_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	5	7	7	0.04%	3.83%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	5.02	0.558	0	1	1	0	2	2,547.16	2310	2332	TRUE	
SNU216_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	5	7	7	0.04%	3.83%	GAGSYTIMVLFADQATPTSPIR	R	V	95.00%	3.18	0.351	0	0	1	0	2	2,376.13	841	862	TRUE	
SNU216_PC1_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	5	7	7	0.04%	3.83%	IPEISIQDMTAQVTSPSGK	K	T	95.00%	5.49	0.445	0	1	0	0	2	2,081.98	2165	2183	TRUE	
SNU216_PC1_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	4	6	0.04%	5.21%	ENPPVEDSSDEDDKR	R	N	95.00%	3.38	0.493	0	2	0	0	2	1,811.70	491	505	TRUE	
SNU216_PC1_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	4	6	0.04%	5.21%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.76	0.37	0	1	2	0	2	2,824.10	491	513	TRUE	
SNU216_PC1_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	4	6	0.04%	5.21%	HKSSLNSSPWSGLMALGNSR	K	H	95.00%	2.73	0.277	0	0	1	0	2	2,209.02	11	30	TRUE	
SNU216_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00102107	296,653.80	99.60%	2	2	2	0.01%	1.37%	AASPHQVTPQADEK	R	M	91.30%	2.45	0.178	0	1	0	0	2	1,558.69	2469	2482	TRUE	
SNU216_PC1_01	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00102107	296,653.80	99.60%	2	2	2	0.01%	1.37%	TATSPKETVEEGVEHDPGMPASK	R	K	95.00%	3.27	0.25	0	0	1	0	2	2,477.09	1507	1529	TRUE	
SNU216_PC1_01	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	3	3	3	0.02%	4.40%	ANEAGGQVGPEAPRPPETSPEMR	R	S	95.00%	2.77	0.247	0	1	0	0	2	2,457.09	267	289	TRUE	
SNU216_PC1_01	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	3	3	3	0.02%	4.40%	LRRPSVNGEPGSVPPPR	R	A	95.00%	3.84	0.268	0	0	1	0	2	1,894.96	1253	1269	TRUE	
SNU216_PC1_01	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	3	3	3	0.02%	4.40%	PSDVGNLLDFAESDEDEAHGPGAPEAR	K	A	95.00%	4.63	0.396	0	0	1	0	2	2,877.15	179	205	TRUE	
SNU216_PC1_01	Isoform 3 of Receptor-type tyrosine-protein phos	IPI00163420,IPI00304030	89,703.70	99.80%	1	2	2	0.01%	2.00%	VVQEYIDAFSDYANFK	K	-	95.00%	4.63	0.525	0	1	1	0	2	1,988.87	778	793	TRUE	
SNU216_PC1_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	7.12%	HKSDVEIPATVTAFSFEDDTVPLSPLK	R	Y	95.00%	5.5	0.49	0	0	1	0	2	3,023.47	400	426	TRUE	
SNU216_PC1_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	7.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.52	0.199	0	1	1	0	2	1,850.88	636	652	TRUE	
SNU216_PC1_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	7.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.71	0.312	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC1_01	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	4	0.02%	2.56%	GIGTPPNTTPIKNGSPEIK	K	L	95.00%	2.95	0.273	0	2	0	0	2	2,001.01	107	125	TRUE	
SNU216_PC1_01	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	4	0.02%	2.56%	IQDPTEDAEAEDTPR	R	K	95.00%	4.52	0.559	0	1	0	0	2	1,766.71	532	546	TRUE	
SNU216_PC1_01	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	4	0.02%	2.56%	RIQDPTEDAEAEDTPR	K	K	95.00%	2.02	0.279	0	1	0	0	2	1,922.81	531	546	TRUE	
SNU216_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.12	0.567	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	6.18	0.626	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	5.85	0.446	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	2.67	0.283	0	1	1	0	2	2,333.97	104	122	TRUE	
SNU216_PC1_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.84	0.479	0	1	2	0	2	2,045.94	105	122	TRUE	
SNU216_PC1_01	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	2	2	2	0.01%	0.58%	SKSDSYTLDPDTLR	R	K	88.10%	3.19	0.0451	0	1	0	0	2	1,677.74	2831	2844	TRUE	
SNU216_PC1_01	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	2	2	2	0.01%	0.58%	SLSPNHNTLQTLK	R	S	93.10%	2.27	0.196	0	1	0	0	2	1,532.75	2749	2761	TRUE	
SNU216_PC1_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.70%	2	2	2	0.01%	8.48%	RPDPDSDEDEDYER	R	E	95.00%	4.46	0.562	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC1_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.70%	2	2	2	0.01%	8.48%	SPTGPSNSFLANMGGTVAHK	R	I	93.20%	2.94	0.173	0	0	1	0	2	2,052.92	129	148	TRUE	
SNU216_PC1_01	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	2	3	3	0.02%	2.49%	KITPPSSPHSLTSTLVSLGHEEALEMAGSK	K	N	95.00%	5.73	0.0807	0	0	1	1	2	3,184.56	1057	1086	TRUE	
SNU216_PC1_01	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	2	3	3	0.02%	2.49%	MSPSGGAPQTTPTLR	K	S	95.00%	2.81	0.418	0	1	0	0	2	1,580.71	1153	1167	TRUE	
SNU216_PC1_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	5.09%	EGSPIPHDPEFGSK	R	L	95.00%	3.07	0.493	0	1	0	0	2	1,576.67	280	293	TRUE	
SNU216_PC1_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	5.09%	SAPASPTHPGLMSPR	R	S	95.00%	2.45	0.384	0	1	0	0	2	1,585.72	253	267	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	99.90%	2	2	2	0.01%	5.40%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.89	0.546	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC1_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	99.90%	2	2	2	0.01%	5.40%	TGSESSQTGTSTTSSR	R	N	84.90%	3.41	0.0202	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC1_01	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	100.00%	2	2	3	0.02%	1.83%	DASDGEDEKPPLPPR	R	S	95.00%	2.79	0.389	0	2	0	0	2	1,702.73	130	144	TRUE	
SNU216_PC1_01	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	100.00%	2	2	3	0.02%	1.83%	EPDPPDDRDASDGEDEKPPLPPR	R	S	95.00%	2.68	0.259	0	0	1	0	2	2,624.12	122	144	TRUE	
SNU216_PC1_01	Ankyrin-3	IPI00472779,IPI00478210	480,407.20	99.80%	2	2	2	0.01%	0.46%	MNVPETMNEVLDMSDDEVR	K	K	95.00%	2.82	0.376	0	1	0	0	2	2,303.92	834	852	TRUE	
SNU216_PC1_01	Ankyrin-3	IPI00472779,IPI00478210	480,407.20	99.80%	2	2	2	0.01%	0.46%	MNVPETMNEVLDMSDDEVRK	K	A	95.00%	2.41	0.23	0	1	0	0	2	2,432.02	834	853	TRUE	
SNU216_PC1_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	1	1	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	3.69	0.264	0	0	0	1	2	2,846.26	686	709	TRUE	
SNU216_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.65%	ALQLSNSPGASSAFLK	K	A	95.00%	3.8	0.35	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.65%	DEDEGIPSENEEEKK	R	M	95.00%	2.48	0.227	0	1	0	0	2	1,827.72	2342	2356	TRUE	
SNU216_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.65%	GTATPELHTATDYR	K	D	95.00%	2.52	0.198	0	1	0	0	2	1,612.70	812	825	TRUE	
SNU216_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.65%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.88	0.252	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.65%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	5.83	0.477	0	0	0	1	2	4,169.94	1604	1643	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.65%	SGSLDSELSVSPK	K	R	95.00%	2.6	0.163	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216_PC1_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.65%	VDSLVSLSEEDLESDQR	R	E	95.00%	3.24	0.431	0	1	0	0	2	2,000.87	1644	1660	TRUE	
SNU216_PC1_01	Transmembrane protein 1	IPI00298870	142,190.10	98.90%	1	1	1	0.01%	1.03%	QRTGRCMVTTDHK	K	V	95.00%	2.5	0.196	0	0	1	0	2	1,685.73	911	923	TRUE	
SNU216_PC1_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	4	4	0.02%	8.16%	FAFSPLSEEEEEDEQKEPMLK	R	E	95.00%	3.59	0.322	0	1	1	0	2	2,592.11	478	498	TRUE	
SNU216_PC1_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	4	4	0.02%	8.16%	WVEENVPSSVTDVALPALLDSDEER	K	M	95.00%	5.09	0.484	0	1	1	0	2	2,850.31	529	553	TRUE	
SNU216_PC1_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	99.80%	2	3	3	0.02%	5.69%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	3.47	0.342	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216_PC1_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	99.80%	2	3	3	0.02%	5.69%	DLTHSDSESSLHMSDR	R	Q	95.00%	4.14	0.103	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216_PC1_01	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	100.00%	2	2	2	0.01%	0.90%	EQAPDISPK	K	S	95.00%	2.13	0.342	0	1	0	0	2	1,064.47	941	949	TRUE	
SNU216_PC1_01	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	100.00%	2	2	2	0.01%	0.90%	KSSPFKDLMTVPESR	K	D	95.00%	3.51	0.349	0	0	1	0	2	1,801.86	909	923	TRUE	
SNU216_PC2_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	3.68%	IGSDPLAYEPK	R	E	84.00%	1.89	0.201	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216_PC2_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	3.68%	INNYLTVPAHKLDSPTMSR	K	A	95.00%	5.61	0.465	0	0	1	0	2	2,237.08	184	202	TRUE	
SNU216_PC2_01	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	3.68%	LDSPTMSR	K	A	95.00%	1.88	0.344	0	1	0	0	2	986.4014	195	202	TRUE	
SNU216_PC2_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	2	2	2	0.01%	4.05%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	2.64	0.24	0	1	0	0	2	2,007.96	389	406	TRUE	
SNU216_PC2_01	EHBP1 protein	IPI00433194	132,325.70	100.00%	2	2	2	0.01%	4.05%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	6.67	0.549	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	5.68%	ISHSLYSGIEGLDESPSR	R	N	95.00%	4.34	0.528	0	1	0	0	2	2,026.91	714	731	TRUE	
SNU216_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	5.68%	RSSDPALIGLSTSVSDSNFSSEEPSR	R	K	83.00%	6.13	0.0039	0	0	1	0	2	2,805.26	142	167	TRUE	
SNU216_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	5.68%	RSSDPALIGLSTSVSDSNFSSEEPSRK	R	N	95.00%	5.91	0.465	0	0	1	0	2	2,933.35	142	168	TRUE	
SNU216_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	5.68%	SKSMDLGIADETK	K	L	83.50%	2.15	0.185	0	1	0	0	2	1,474.65	847	859	TRUE	
SNU216_PC2_01	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	5	5	5	0.03%	5.68%	SPGSPPGPELPIETALDDR	K	E	95.00%	2.43	0.226	0	1	0	0	2	2,027.93	692	710	TRUE	
SNU216_PC2_01	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.98	0.228	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216_PC2_01	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	SSDGSLSHEEDLAK	R	V	95.00%	2.97	0.216	0	1	0	0	2	1,554.63	238	251	TRUE	
SNU216_PC2_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGR	K	P	95.00%	2.36	0.35	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216_PC2_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.65	0.26	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216_PC2_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RSPSPYYSR	R	D	95.00%	2.1	0.265	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216_PC2_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	99.80%	2	2	2	0.01%	2.94%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	5.38	0.444	0	0	1	0	2	2,772.23	1181	1204	TRUE	
SNU216_PC2_01	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	99.80%	2	2	2	0.01%	2.94%	SSIHNFMTHPEFR	R	I	95.00%	2.43	0.278	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	8	8	0.05%	5.14%	DAQRLSPIPEEVPK	K	S	95.00%	2.91	0.255	0	1	1	0	2	1,658.82	558	571	TRUE	
SNU216_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	8	8	0.05%	5.14%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	3.85	0.482	0	0	1	0	2	2,897.99	1234	1256	TRUE	
SNU216_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	8	8	0.05%	5.14%	IESDEEEDFENVGK	R	V	95.00%	3.41	0.394	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	8	8	0.05%	5.14%	KPDSPPKVLEPENK	K	Q	95.00%	4.12	0.384	0	0	1	0	2	1,657.82	704	717	TRUE	
SNU216_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	8	8	0.05%	5.14%	KPYRIESDEEEDFENVGK	K	V	95.00%	3.67	0.207	0	0	1	0	2	2,263.98	1298	1315	TRUE	
SNU216_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	8	8	0.05%	5.14%	LSPIPEEVPK	R	S	80.10%	1.76	0.239	0	1	0	0	2	1,188.59	562	571	TRUE	
SNU216_PC2_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	8	8	0.05%	5.14%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	3.22	0.214	0	0	1	0	2	2,263.14	553	571	TRUE	
SNU216_PC2_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	3.25%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	K	P	95.00%	3.75	0.296	0	0	1	0	2	3,174.59	306	333	TRUE	
SNU216_PC2_01	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	3.25%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	79.80%	2.97	0.137	0	0	1	0	2	2,623.30	1073	1096	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	4	4	4	0.03%	3.57%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	4.51	0.371	0	0	1	0	2	2,989.46	206	231	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	4	4	4	0.03%	3.57%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	5.3	0.574	0	0	1	0	2	2,522.20	2140	2161	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	4	4	4	0.03%	3.57%	SPGSISYLPSFFTK	R	L	95.00%	2.62	0.302	0	0	1	0	2	1,610.75	2184	2197	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	4	4	4	0.03%	3.57%	SPNREWEVLQPAPHQVITNLPEGVR	K	L	95.00%	3.79	0.331	0	0	1	0	2	2,946.46	999	1023	TRUE	
SNU216_PC2_01	Ubiquitin-like PHD and RING finger domain-conta	IPI00066641,IPI00645728	81,988.60	99.30%	2	2	2	0.01%	3.28%	EEEEQQEGGFASPR	K	T	95.00%	2.5	0.267	0	1	0	0	2	1,672.65	641	654	TRUE	
SNU216_PC2_01	Ubiquitin-like PHD and RING finger domain-conta	IPI00066641,IPI00645728	81,988.60	99.30%	2	2	2	0.01%	3.28%	QSLVLPHSTKER	R	D	85.70%	2.46	0.171	0	1	0	0	2	1,474.74	88	99	TRUE	
SNU216_PC2_01	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	3	4	5	0.03%	3.18%	QEEIDESDDDLDDKPSPIK	R	K	95.00%	4.17	0.443	0	1	1	0	2	2,267.94	714	732	TRUE	
SNU216_PC2_01	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	3	4	5	0.03%	3.18%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	3.77	0.315	0	0	2	0	2	2,476.01	714	733	TRUE	
SNU216_PC2_01	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	3	4	5	0.03%	3.18%	TLSDPPSPLPHGPPNK	R	G	95.00%	2.77	0.226	0	1	0	0	2	1,813.79	840	855	TRUE	
SNU216_PC2_01	Isoform 1 of Double-strand break repair protein N	IPI00029159,IPI00218853	80,595.10	99.90%	1	1	2	0.01%	3.11%	GVDFESSEDDDDDPFMNTSSLR	K	R	95.00%	4.78	0.678	0	2	0	0	2	2,557.96	683	704	TRUE	
SNU216_PC2_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	2	2	0.01%	3.35%	RPNEDSDEDEEK	K	G	95.00%	3.45	0.446	0	1	0	0	2	1,542.56	686	697	TRUE	
SNU216_PC2_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	3.76	0.304	0	0	0	1	2	2,846.26	686	709	TRUE	
SNU216_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.24	0.448	0	0	1	0	2	2,816.12	796	819	TRUE	
SNU216_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	5.18	0.508	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.23	0.151	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216_PC2_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	SPPEGDTTLFLSR	R	L	95.00%	2.66	0.353	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	5	6	7	0.04%	4.98%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	3.27	0.225	0	1	1	0	2	2,290.07	266	286	TRUE	
SNU216_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	5	6	7	0.04%	4.98%	DDISEIQSLASDHSGR	R	S	95.00%	2.94	0.315	0	1	0	0	2	1,809.77	287	302	TRUE	
SNU216_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	5	6	7	0.04%	4.98%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	3.95	0.376	0	0	0	1	2	2,165.08	346	365	TRUE	
SNU216_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	5	6	7	0.04%	4.98%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.54	0.3	0	0	0	1	2	3,651.55	111	140	TRUE	
SNU216_PC2_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	5	6	7	0.04%	4.98%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.83	0.37	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216_PC2_01	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	5.26%	QSGDGQESTEPVENK	R	V	95.00%	3.59	0.547	0	1	0	0	2	1,684.67	147	161	TRUE	
SNU216_PC2_01	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	5.26%	SEANDAVNSSTKEEK	K	G	95.00%	4.62	0.42	0	1	0	0	2	1,688.70	117	131	TRUE	
SNU216_PC2_01	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	5.26%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	4.36	0.479	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	3	4	0.03%	7.29%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.84	0.413	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	3	4	0.03%	7.29%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	4.24	0.483	0	0	2	0	2	2,009.92	238	257	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	3	4	0.03%	7.29%	TVFPGAVPVLPASPPPKDSLR	K	S	95.00%	4.24	0.358	0	0	1	0	2	2,225.17	217	237	TRUE	
SNU216_PC2_01	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	1	1	1	0.01%	1.45%	HLSPYATLTVGDSSHK	K	T	95.00%	3.5	0.372	0	0	1	0	2	1,792.83	818	833	TRUE	
SNU216_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.14%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	4.75	0.0886	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.14%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.74	0.4	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.14%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.96	0.369	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216_PC2_01	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	5	5	0.03%	6.14%	QGSGRESPSLASR	R	E	84.50%	1.85	0.273	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216_PC2_01	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.90%	2	2	2	0.01%	4.74%	APSHMSSSHSFPQLAR	R	N	95.00%	3.1	0.317	0	0	1	0	2	1,819.79	174	189	TRUE	
SNU216_PC2_01	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.90%	2	2	2	0.01%	4.74%	QAGAPGGSSGSGGSPELSALR	R	L	95.00%	3.41	0.0906	0	1	0	0	2	1,922.86	527	547	TRUE	
SNU216_PC2_01	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	100.00%	3	4	4	0.03%	5.24%	GDAASSPAPAASVGSSQGGAR	R	K	95.00%	3.05	0.37	0	1	0	0	2	1,880.81	256	276	TRUE	
SNU216_PC2_01	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	100.00%	3	4	4	0.03%	5.24%	GGGQLDLLGVSLASLKK	R	Q	95.00%	3.24	0.216	0	1	0	0	2	1,735.94	409	425	TRUE	
SNU216_PC2_01	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	100.00%	3	4	4	0.03%	5.24%	VENSPQVDGSPPGLEGLLGGIGEK	R	G	95.00%	4.25	0.481	0	1	1	0	2	2,429.16	1071	1094	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	6	0.04%	6.23%	AHLSENELEALEK	R	N	94.80%	2.05	0.254	0	1	0	0	2	1,562.71	859	871	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	6	0.04%	6.23%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	4.58	0.328	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	6	0.04%	6.23%	GLVAAYSGESDSEEEQER	R	G	95.00%	4.63	0.483	0	2	0	0	2	2,035.81	792	809	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	6	0.04%	6.23%	HRHSPTGPPGFPR	R	D	95.00%	2.58	0.25	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	5	5	6	0.04%	6.23%	LASDDRPSPPR	K	G	84.10%	2.05	0.172	0	1	0	0	2	1,290.58	781	791	TRUE	
SNU216_PC2_01	Polycomb protein SUZ12	IPI00299526	83,055.20	99.70%	1	1	1	0.01%	2.44%	ASMSEFLESEDGEVEQQR	K	T	95.00%	3.37	0.389	0	1	0	0	2	2,150.86	538	555	TRUE	
SNU216_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	6.45%	DSDYVYPSLESDEDNPIFK	R	S	95.00%	3.21	0.373	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	6.45%	EKEEPPSPIEATPPQSLLEK	R	V	95.00%	3.24	0.276	0	0	1	0	2	2,299.11	468	487	TRUE	
SNU216_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	6.45%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.65	0.356	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216_PC2_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	4	5	5	0.03%	6.45%	RPSASSPNNNTAAK	R	G	95.00%	2.13	0.273	0	1	0	0	2	1,494.67	1059	1072	TRUE	
SNU216_PC2_01	PREDICTED: hypothetical protein LOC23379	IPI00738216	289,934.40	98.90%	1	1	1	0.01%	0.60%	EAAPGKSELCSSPLGK	K	R	95.00%	2.66	0.189	0	0	1	0	2	1,710.78	915	930	TRUE	
SNU216_PC2_01	Isoform 2 of Mitochondrial inner membrane prot	IPI00554469	82,625.80	100.00%	1	1	1	0.01%	3.35%	GMSVSDLADKLSTDDLNSLIAHAHR	K	R	95.00%	3.08	0.272	0	0	0	1	2	2,746.29	375	399	TRUE	
SNU216_PC2_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	3	3	3	0.02%	5.83%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	3.7	0.278	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216_PC2_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	3	3	3	0.02%	5.83%	FPTTATKISPK	R	E	87.80%	2.15	0.184	0	1	0	0	2	1,270.64	414	424	TRUE	
SNU216_PC2_01	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	3	3	3	0.02%	5.83%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	4.5	0.348	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216_PC2_01	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	109,875.30	99.80%	2	3	3	0.02%	3.79%	ADSEYTDKLQHYTSGHMTPGMK	R	I	95.00%	3.72	0.451	0	0	1	1	2	2,577.08	573	594	TRUE	
SNU216_PC2_01	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	109,875.30	99.80%	2	3	3	0.02%	3.79%	FLEDDTSDPTYTSALGGK	R	I	95.00%	3.37	0.421	0	1	0	0	2	1,996.84	770	787	TRUE	
SNU216_PC2_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	6	0.04%	3.05%	AEDSDSEPEPEDNVR	K	L	95.00%	2.68	0.339	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC2_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	6	0.04%	3.05%	KAEDSDSEPEPEDNVR	R	L	95.00%	4.25	0.471	0	2	1	0	2	1,896.75	495	510	TRUE	
SNU216_PC2_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	6	0.04%	3.05%	NSPGSQVASNPR	R	Q	95.00%	2.59	0.451	0	1	0	0	2	1,293.56	447	458	TRUE	
SNU216_PC2_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	6	0.04%	3.05%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.53	0.421	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216_PC2_01	Isoform 1 of Tetratricopeptide repeat protein 7B	IPI00337641,IPI00456534	84,458.00	99.30%	2	2	3	0.02%	4.32%	LPISSSTSNLHVDR	K	E	86.70%	3.31	0.0373	0	1	0	0	2	1,605.76	53	66	TRUE	
SNU216_PC2_01	Isoform 1 of Tetratricopeptide repeat protein 7B	IPI00337641,IPI00456534	84,458.00	99.30%	2	2	3	0.02%	4.32%	VEQALSEVASSLQSSAPK	R	Q	95.00%	3.08	0.264	0	2	0	0	2	1,910.91	583	600	TRUE	
SNU216_PC2_01	Isoform 1 of Dynamin-2	IPI00033022,IPI00181352,IP	98,024.70	100.00%	1	1	1	0.01%	4.48%	EALNIIGDISTSTVSTPVPPPVDDTWLQSASS	K	R	95.00%	7.51	0.0145	0	0	1	0	2	4,181.01	731	769	TRUE	
SNU216_PC2_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.80%	1	1	1	0.01%	1.33%	ATSPVKSTTSITDAK	K	S	95.00%	3.01	0.454	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.92%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	4.54	0.134	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.92%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	3.95	0.342	0	0	3	0	2	2,359.11	279	299	TRUE	
SNU216_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.92%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	5.22	0.439	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.92%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	4.44	0.424	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.92%	MEVDRSPGLPMSDLK	R	T	95.00%	3.39	0.219	0	1	0	0	2	1,754.79	614	628	TRUE	
SNU216_PC2_01	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.92%	SKTFDWAEFRPIQQALAQER	R	V	95.00%	2.7	0.268	0	0	1	0	2	2,501.20	540	559	TRUE	
SNU216_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	4	5	8	0.05%	7.08%	DTSENADGQSDENKDDYTIPDEYR	K	I	95.00%	3.3	0.426	0	0	1	0	2	2,857.10	757	780	TRUE	
SNU216_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	4	5	8	0.05%	7.08%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.54	0.424	0	0	1	3	2	2,598.14	186	207	TRUE	
SNU216_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	4	5	8	0.05%	7.08%	SYSPDGKESPSDK	R	K	95.00%	2.56	0.381	0	2	0	0	2	1,476.59	596	608	TRUE	
SNU216_PC2_01	Matrin-3	IPI00017297	94,626.70	100.00%	4	5	8	0.05%	7.08%	SYSPDGKESPSDKK	R	S	95.00%	2.81	0.279	0	1	0	0	2	1,604.68	596	609	TRUE	
SNU216_PC2_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	2	3	4	0.03%	3.32%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.22	0.358	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216_PC2_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	2	3	4	0.03%	3.32%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.15	0.522	0	0	2	0	2	2,992.36	1263	1291	TRUE	
SNU216_PC2_01	Isoform 1 of DNA	IPI00031519	189,570.80	99.80%	1	1	1	0.01%	1.13%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.47	0.502	0	1	0	0	2	2,224.85	760	778	TRUE	
SNU216_PC2_01	Histone deacetylase 2	IPI00289601	55,365.50	99.80%	1	2	2	0.01%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	5.32	0.413	0	0	1	1	2	3,665.55	373	405	TRUE	
SNU216_PC2_01	Major vault protein	IPI00000105	99,194.80	100.00%	1	1	1	0.01%	3.59%	VASGPSPGEGISPQSAQAPQAPGDNHVVP	R	-	95.00%	5.04	0.46	0	0	1	0	2	3,199.55	861	892	TRUE	
SNU216_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	8.68%	FNSDLIDFASTSQAFNKVPSPHETKPDEDAE	K	L	95.00%	4.92	0.106	0	0	0	1	2	4,442.97	566	604	TRUE	
SNU216_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	8.68%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	4.53	0.303	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	8.68%	HDEESHSLSPPGENTVMADSFQIK	R	V	95.00%	4.55	0.459	0	0	1	0	2	2,735.17	518	541	TRUE	
SNU216_PC2_01	Calmin	IPI00101942	111,652.50	100.00%	4	4	4	0.03%	8.68%	VPSPHETKPDEDAEAFENHAEK	K	L	95.00%	4.14	0.337	0	0	0	1	2	2,557.09	583	604	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	99.80%	2	2	2	0.01%	3.39%	ASQSRPNSSALETLGGEK	K	L	95.00%	5.44	0.0261	0	1	0	0	2	1,911.88	447	464	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	99.80%	2	2	2	0.01%	3.39%	QVAEQGGDLSPAANR	K	S	95.00%	3.32	0.445	0	1	0	0	2	1,592.71	429	443	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	98.70%	1	1	1	0.01%	0.38%	TIAHSPTSFTESSSK	R	E	95.00%	3.4	0.444	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216_PC2_01	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	99.80%	1	1	1	0.01%	0.97%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.62	0.573	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216_PC2_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	100.00%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	4.03	0.194	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216_PC2_01	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	100.00%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	R	L	95.00%	5.31	0.531	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216_PC2_01	Factor for adipocyte differentiation 104 variant (F	IPI00217490	132,879.60	99.60%	1	1	1	0.01%	0.83%	LNSPPSSIYK	R	S	92.10%	2.09	0.189	0	1	0	0	2	1,185.56	206	215	TRUE	
SNU216_PC2_01	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	1	1	1	0.01%	2.75%	KVNVTVDYIRPASPATETVPAFSER	K	T	87.20%	5.12	0.0468	0	0	1	0	2	2,827.40	414	438	TRUE	
SNU216_PC2_01	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	99.90%	1	1	1	0.01%	1.22%	TSPTPPESATTVK	R	S	95.00%	2.02	0.363	0	1	0	0	2	1,395.64	728	740	TRUE	
SNU216_PC2_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	7.28	0.593	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216_PC2_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.64	0.473	0	0	1	0	2	2,581.18	462	485	TRUE	
SNU216_PC2_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	95.00%	4.42	0.111	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	99.90%	2	2	2	0.01%	1.44%	EVSPEVVR	K	S	95.00%	1.71	0.297	0	1	0	0	2	994.4605	196	203	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	99.90%	2	2	2	0.01%	1.44%	TPSPPPPIPEDIALGK	R	K	95.00%	2.27	0.257	0	1	0	0	2	1,788.82	263	278	TRUE	
SNU216_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	AGLGSPERPPK	R	T	95.00%	2.37	0.204	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.84	0.306	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216_PC2_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	LGGLRPESPESLTSVSR	R	T	95.00%	2.52	0.31	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216_PC2_01	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	100.00%	1	1	1	0.01%	1.74%	ALVVPEPEPDSDSNQER	K	K	95.00%	3.84	0.578	0	1	0	0	2	1,961.85	126	142	TRUE	
SNU216_PC2_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.7	0.376	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC2_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.21	0.47	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC2_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.35	0.324	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC2_01	SLIT-ROBO Rho GTPase-activating protein 2	IPI00478979,IPI00479125	72,272.20	99.80%	2	2	2	0.01%	4.48%	SKSFNNHRPMDPEVIAQDIEATMNSALNEI	R	E	95.00%	5.2	0.287	0	0	0	1	2	3,607.67	512	542	TRUE	
SNU216_PC2_01	SLIT-ROBO Rho GTPase-activating protein 2	IPI00478979,IPI00479125	72,272.20	99.80%	2	2	2	0.01%	4.48%	SSPKSEIEVISEPPEEK	R	V	95.00%	2.89	0.406	0	1	0	0	2	1,964.91	366	382	TRUE	
SNU216_PC2_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	4	23	0.15%	8.95%	AEEPPSQLDQDTQVQDMDEGSDDEEEGQI	K	V	95.00%	5.53	0.408	0	0	1	0	2	3,329.28	339	367	TRUE	
SNU216_PC2_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	4	23	0.15%	8.95%	EKQSDDEVYAPGLDIESSLK	R	Q	95.00%	4.91	0.483	0	1	0	0	2	2,303.03	448	467	TRUE	
SNU216_PC2_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	4	23	0.15%	8.95%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	6.26	0.46	0	2	19	0	2	2,697.03	317	338	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	AEEGDADEKLFEESDDKEDEDADGK	K	E	95.00%	3.1	0.276	0	0	1	0	2	2,866.10	663	687	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	DLDEEGSEKELHENVLDK	K	E	95.00%	4.26	0.42	0	1	1	0	2	2,178.94	573	590	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	5.24	0.487	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	ELHENVLDKELEENDSENSEFEDDGSEK	K	V	95.00%	5.96	0.508	0	0	2	0	2	3,439.33	582	609	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	ESEDDLNKESEEEVGPTK	K	E	95.00%	4.64	0.509	0	1	0	0	2	2,114.87	520	537	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	LFDEEEDSSEKLFDDSDER	K	G	95.00%	4.73	0.436	0	2	1	0	2	2,384.93	706	724	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	5.56	0.595	0	2	0	0	2	2,600.01	696	716	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	LFEDDDSNEKLFDEEEDSSEKLFDDSDER	K	G	95.00%	3.31	0.332	0	0	1	0	2	3,657.38	696	724	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	LFEESDDKEDEDADGK	K	E	95.00%	3.19	0.155	0	1	0	0	2	1,921.72	672	687	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.58	0.498	0	0	3	0	2	2,837.11	672	695	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.55	0.396	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.99	0.4	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	VLDEEGSER	K	E	93.70%	1.61	0.29	0	1	0	0	2	1,113.45	610	618	TRUE	
SNU216_PC2_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	24	0.15%	22.40%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	4.13	0.347	0	0	1	1	2	3,440.26	610	636	TRUE	
SNU216_PC2_01	Isoform 1 of Protein KIAA0690	IPI00101186,IPI00294794	132,711.90	99.80%	1	2	2	0.01%	1.70%	GDSIEEILADSEDEEDNEEEER	K	S	95.00%	4.76	0.488	0	1	1	0	2	2,631.99	970	991	TRUE	
SNU216_PC2_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	2	2	2	0.01%	1.17%	ATEDGEEDEVSAGEK	K	E	95.00%	2.88	0.301	0	1	0	0	2	1,645.61	1425	1439	TRUE	
SNU216_PC2_01	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	2	2	2	0.01%	1.17%	SKATEDGEEDEVSAGEK	K	E	95.00%	2.87	0.214	0	1	0	0	2	1,860.74	1423	1439	TRUE	
SNU216_PC2_01	Importin beta-3	IPI00329200	126,524.70	100.00%	1	1	1	0.01%	3.47%	TASIKPEVALLDTQDMENMSDDDGWEFVN	K	T	95.00%	5.48	0.523	0	0	1	0	2	4,423.96	651	689	TRUE	
SNU216_PC2_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	3	3	0.02%	2.91%	GDLSDVEEEEEEEEMDVDEATGAVK	R	K	95.00%	5.25	0.448	0	1	0	0	2	2,705.05	829	852	TRUE	
SNU216_PC2_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	3	3	0.02%	2.91%	GDLSDVEEEEEEEEMDVDEATGAVKK	R	H	95.00%	4.98	0.474	0	0	1	0	2	2,833.15	829	853	TRUE	
SNU216_PC2_01	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	3	3	0.02%	2.91%	YMNSDTTSPELR	R	E	95.00%	2.56	0.196	0	1	0	0	2	1,493.60	1105	1116	TRUE	
SNU216_PC2_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	2.78%	FDSNEEDSASVFSPSFGLK	K	Q	95.00%	3.45	0.472	0	1	0	0	2	2,142.89	1464	1482	TRUE	
SNU216_PC2_01	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	2.78%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	3.46	0.276	0	0	1	0	2	3,017.35	1574	1599	TRUE	
SNU216_PC2_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.80%	2	2	2	0.01%	2.74%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	2.74	0.376	0	1	0	0	2	2,075.92	342	359	TRUE	
SNU216_PC2_01	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.80%	2	2	2	0.01%	2.74%	KRSPSPSPTPEAK	R	K	95.00%	2.27	0.278	0	1	0	0	2	1,621.64	300	312	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX1	IPI00293655	82,433.20	99.90%	1	1	1	0.01%	2.43%	DNTRPGANSPEMWSEAIK	K	I	95.00%	3.3	0.169	0	0	1	0	2	2,082.90	473	490	TRUE	
SNU216_PC2_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	99.80%	2	2	2	0.01%	3.39%	ADAPDAGAQSDSELPSYHQNDVSLDR	R	G	95.00%	5.22	0.481	0	0	1	0	2	2,838.19	1289	1314	TRUE	
SNU216_PC2_01	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	99.80%	2	2	2	0.01%	3.39%	GGQSDDDEDEGVPASYHTVSLQVSQDLLD	R	A	95.00%	6.77	0.236	0	0	0	1	2	4,145.84	1472	1508	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	ASPIKMDLAPSK	R	D	95.00%	2.29	0.247	0	1	1	0	2	1,337.65	385	396	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	ASPSKPASAPASR	R	S	95.00%	2.73	0.347	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	DGVLTLANNVTPAK	K	D	95.00%	3.1	0.273	0	1	0	0	2	1,492.74	589	602	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.96	0.213	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	DMESPTKLDVTLAK	K	D	95.00%	3.64	0.363	0	2	0	0	2	1,627.77	305	318	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	DMSPLSETEMALGK	K	D	95.00%	2.97	0.524	0	3	0	0	2	1,668.63	533	546	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	5.39	0.514	0	0	3	0	2	3,106.50	533	560	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	DVTPPPETEVVLIK	K	N	95.00%	2.38	0.282	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	ETERASPIKMDLAPSK	K	D	95.00%	2.71	0.246	0	1	2	0	2	1,852.89	407	422	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	90.10%	6.75	0	0	0	1	0	2	3,569.64	628	661	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	8.33	0.0451	0	0	1	0	2	3,697.73	628	662	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	RASPSKPASAPASR	K	S	95.00%	2.76	0.38	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC2_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	13	16	22	0.14%	14.30%	SPSTLLPK	R	K	95.00%	1.72	0.266	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216_PC2_01	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.80%	1	2	2	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.88	0.344	0	1	1	0	2	1,498.67	12	23	TRUE	
SNU216_PC2_01	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	99.80%	2	2	2	0.01%	5.11%	GPQGPGGGGINVQEILTSIMGSPNSHPSEEI	K	Q	95.00%	7.43	0.0811	0	0	1	0	2	3,380.62	570	602	TRUE	
SNU216_PC2_01	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	99.80%	2	2	2	0.01%	5.11%	VLSPTAAKPSPFEGK	K	T	95.00%	2.82	0.399	0	1	0	0	2	1,608.80	311	325	TRUE	
SNU216_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	7	0.04%	7.82%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	3.77	0.55	0	1	1	0	2	2,580.79	423	442	TRUE	
SNU216_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	7	0.04%	7.82%	GSDSPAADVEIEYVTEEPEIYEPNFIFFK	R	R	95.00%	4.17	0.307	0	0	1	0	2	3,415.52	359	387	TRUE	
SNU216_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	7	0.04%	7.82%	SRGSDSPAADVEIEYVTEEPEIYEPNFIFFK	R	R	85.30%	6.08	0.0097	0	0	1	0	2	3,658.65	357	387	TRUE	
SNU216_PC2_01	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	7	0.04%	7.82%	SSLGQSASETEEDTVSVSK	K	K	95.00%	3.42	0.0877	0	3	0	0	2	2,020.86	302	320	TRUE	
SNU216_PC2_01	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	1	2	2	0.01%	1.03%	APLKPYPVSPSDK	K	V	95.00%	2.98	0.412	0	1	1	0	2	1,478.73	1043	1055	TRUE	
SNU216_PC2_01	Zinc finger and BTB domain-containing protein 7/	IPI00026317	61,439.50	99.80%	1	1	1	0.01%	2.91%	AGAAAGDSDEESRADDK	R	G	95.00%	2.81	0.489	0	1	0	0	2	1,744.67	330	346	TRUE	
SNU216_PC2_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	1	1	1	0.01%	2.97%	TVQSLEIDLDSMR	R	N	95.00%	2.82	0.26	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216_PC2_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	6	0.04%	2.81%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	95.00%	3.66	0.363	0	0	2	0	2	3,183.23	670	695	TRUE	
SNU216_PC2_01	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	6	0.04%	2.81%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.28	0.564	0	3	1	0	2	2,194.90	677	695	TRUE	
SNU216_PC2_01	Oxysterol-binding protein	IPI00163644,IPI00394737	101,301.50	99.80%	1	1	1	0.01%	2.81%	GYSSPEPDIQDSSGSEAQSVKPSTR	K	R	95.00%	3.49	0.164	0	0	1	0	2	2,849.10	797	821	TRUE	
SNU216_PC2_01	E-cadherin	IPI00000513,IPI00025861,IP	90,943.50	100.00%	1	1	1	0.01%	1.46%	NDVAPTLMSVPR	R	Y	85.00%	2.16	0.163	0	1	0	0	2	1,379.64	724	735	TRUE	
SNU216_PC2_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	2	2	2	0.01%	3.26%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	3.99	0.347	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216_PC2_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	2	2	2	0.01%	3.26%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	4.44	0.419	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216_PC2_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.86	0.368	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC2_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.84	0.624	0	3	1	0	2	2,188.85	552	570	TRUE	
SNU216_PC2_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	4.23	0.519	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216_PC2_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.8	0.153	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC2_01	CD2-associated protein	IPI00412771	71,454.00	99.90%	1	1	1	0.01%	2.03%	FNGGHSPTHSPEK	R	I	95.00%	2.59	0.32	0	0	1	0	2	1,474.61	505	517	TRUE	
SNU216_PC2_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	99.80%	2	2	2	0.01%	1.68%	NSSDQEGNNISSSSGHR	K	V	95.00%	2.49	0.448	0	1	0	0	2	1,855.72	275	291	TRUE	
SNU216_PC2_01	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	99.80%	2	2	2	0.01%	1.68%	NTPVSPGSTFPDVKPDLEDVDGVLFVSFESK	K	E	95.00%	3.97	0.52	0	0	1	0	2	3,402.60	641	671	TRUE	
SNU216_PC2_01	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	2	2	2	0.01%	4.61%	EESDDEAAVEEEEEKKPK	K	T	95.00%	5.09	0.464	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216_PC2_01	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	2	2	2	0.01%	4.61%	TETVEEPMEEEEAAKEEKEESDDEAAVEEEEI	K	K	95.00%	4.78	0.517	0	0	1	0	2	4,035.60	286	319	TRUE	
SNU216_PC2_01	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	1	1	1	0.01%	2.19%	SESELIDELSEDFDR	R	S	95.00%	3.03	0.394	0	1	0	0	2	1,863.75	342	356	TRUE	
SNU216_PC2_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQK	K	G	95.00%	2.88	0.401	0	1	0	0	2	1,473.75	596	608	TRUE	
SNU216_PC2_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	3.15	0.424	0	0	0	1	2	3,011.63	596	623	TRUE	
SNU216_PC2_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	2	2	0.01%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.28	0.377	0	0	1	0	2	1,689.71	1052	1066	TRUE	
SNU216_PC2_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	2	2	0.01%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	2.8	0.235	0	0	1	0	2	1,717.72	1051	1065	TRUE	
SNU216_PC2_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	99.80%	2	2	2	0.01%	4.18%	MSGFIYQGK	K	L	95.00%	1.84	0.359	0	1	0	0	2	1,110.47	339	347	TRUE	
SNU216_PC2_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	99.80%	2	2	2	0.01%	4.18%	SGTLKSPPKGFDTTAINK	K	S	95.00%	2.99	0.283	0	0	1	0	2	1,941.97	74	91	TRUE	
SNU216_PC2_01	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	2	3	3	0.02%	2.87%	YIEIDSDEEPR	K	G	95.00%	2.18	0.343	0	1	0	0	2	1,445.58	520	530	TRUE	
SNU216_PC2_01	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	2	3	3	0.02%	2.87%	YIEIDSDEEPRGELLSLR	K	D	95.00%	2.28	0.29	0	1	1	0	2	2,214.03	520	537	TRUE	
SNU216_PC2_01	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	3	3	3	0.02%	7.27%	DTTSPMELAALEK	K	I	95.00%	2.71	0.401	0	1	0	0	2	1,485.65	427	439	TRUE	
SNU216_PC2_01	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	3	3	3	0.02%	7.27%	EVEEDLDELYDSLEMYNPSDSGPEMEETESI	R	L	93.30%	6.1	0.0297	0	0	1	0	2	4,425.89	361	398	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	3	3	3	0.02%	7.27%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	3.38	0.309	0	0	1	0	2	2,045.97	488	506	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger protein 336	IPI00033892	80,490.80	99.80%	1	1	1	0.01%	1.55%	SFLVIVDGSPK	K	N	95.00%	2.56	0.195	0	1	0	0	2	1,241.62	605	615	TRUE	
SNU216_PC2_01	56 kDa protein	IPI00337602,IPI00373877	55,569.20	99.80%	2	3	3	0.02%	3.85%	ISLSKSPTKTDPK	K	N	95.00%	2.5	0.221	0	1	0	0	2	1,481.76	176	188	TRUE	
SNU216_PC2_01	56 kDa protein	IPI00337602,IPI00373877	55,569.20	99.80%	2	3	3	0.02%	3.85%	SPTKTDPKNEEEEK	K	R	95.00%	3.44	0.504	0	1	1	0	2	1,711.74	181	194	TRUE	
SNU216_PC2_01	Meningioma-expressed antigen 5s splice variant	IPI00465449,IPI00477231	102,917.50	100.00%	1	2	2	0.01%	3.40%	LENEGSDEDIETDVLYSPQMALK	K	L	95.00%	5.82	0.561	0	1	1	0	2	2,676.16	359	381	TRUE	
SNU216_PC2_01	hypothetical protein LOC23199	IPI00215963,IPI00477936	125,843.70	99.80%	2	2	2	0.01%	3.53%	ERSPSPPTIQSK	R	R	95.00%	2.28	0.296	0	1	0	0	2	1,486.63	720	731	TRUE	
SNU216_PC2_01	hypothetical protein LOC23199	IPI00215963,IPI00477936	125,843.70	99.80%	2	2	2	0.01%	3.53%	KGPPTQELDRDSEEEEEEDDEDGEDEEEVPK	R	R	95.00%	5.42	0.428	0	0	1	0	2	3,683.44	986	1016	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.80%	2	3	3	0.02%	1.67%	HLEAADKGHSPAQKPK	K	T	95.00%	3.6	0.477	0	0	1	1	2	1,793.87	596	611	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.80%	2	3	3	0.02%	1.67%	MSGLHISGGQSVLEPIK	K	S	95.00%	2.91	0.229	0	0	1	0	2	2,008.83	293	309	TRUE	
SNU216_PC2_01	Isoform 1 of Death domain-associated protein 6	IPI00170867,IPI00220885,IP	81,413.20	99.80%	2	2	2	0.01%	7.43%	DGDKSPMSSLQISNEK	K	N	95.00%	3.18	0.509	0	1	0	0	2	1,815.78	491	506	TRUE	
SNU216_PC2_01	Isoform 1 of Death domain-associated protein 6	IPI00170867,IPI00220885,IP	81,413.20	99.80%	2	2	2	0.01%	7.43%	KLNLAPAATTSNEPSGNNPPTHLSLDPTNAI	K	T	95.00%	4.58	0.333	0	0	0	1	2	4,092.93	142	180	TRUE	
SNU216_PC2_01	hypothetical protein LOC6936	IPI00418340	89,387.70	99.80%	2	2	2	0.01%	2.18%	RESEDDPESEPDDHEK	K	R	95.00%	2.91	0.332	0	1	0	0	2	2,073.70	172	187	TRUE	
SNU216_PC2_01	hypothetical protein LOC6936	IPI00418340	89,387.70	99.80%	2	2	2	0.01%	2.18%	RESEDDPESEPDDHEKR	K	I	95.00%	3.29	0.395	0	0	1	0	2	2,229.80	172	188	TRUE	
SNU216_PC2_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	1	2	2	0.01%	3.24%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	4.65	0.404	0	0	1	1	2	2,225.01	472	492	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM6	IPI00031517	92,890.60	100.00%	1	1	1	0.01%	1.83%	EIESEIDSEEELINK	K	K	95.00%	3.65	0.277	0	1	0	0	2	1,856.81	755	769	TRUE	
SNU216_PC2_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	4	7	0.04%	5.41%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.17	0.349	0	1	3	0	2	2,200.01	667	686	TRUE	
SNU216_PC2_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	4	7	0.04%	5.41%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.18	0.434	0	2	0	0	2	1,772.77	403	420	TRUE	
SNU216_PC2_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	4	7	0.04%	5.41%	KLQLERPVSPETQADLQR	R	N	95.00%	3.15	0.364	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC2_01	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	KADTTTPTPTAILAPGSPASPPGSLEPK	R	A	95.00%	4.89	0.395	0	0	2	0	2	2,782.39	282	309	TRUE	
SNU216_PC2_01	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEK	K	R	95.00%	3.21	0.198	0	0	1	0	2	3,008.24	622	647	TRUE	
SNU216_PC2_01	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEKR	K	Q	95.00%	3.62	0.257	0	0	1	0	2	3,164.34	622	648	TRUE	
SNU216_PC2_01	Type II inositol-3,4-bisphosphate 4-phosphatase	IPI00022020	104,709.00	99.70%	1	1	1	0.01%	1.73%	SSTEESSPQDQPPVMR	K	G	93.70%	2.11	0.228	0	1	0	0	2	1,854.76	490	505	TRUE	
SNU216_PC2_01	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	3	3	3	0.02%	5.25%	TSSAFVGKTPEASPEPK	K	D	95.00%	3.47	0.435	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216_PC2_01	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	3	3	3	0.02%	5.25%	TVGTPIASVPGSTNTGTVPGSEK	R	D	95.00%	3.81	0.471	0	1	0	0	2	2,237.07	270	292	TRUE	
SNU216_PC2_01	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	3	3	3	0.02%	5.25%	TVGTPIASVPGSTNTGTVPGSEKDSDSMETI	R	T	95.00%	3.98	0.31	0	0	1	0	2	3,388.50	270	302	TRUE	
SNU216_PC2_01	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.90%	2	3	3	0.02%	5.07%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	8.17	0.487	0	0	1	1	2	4,052.72	188	220	TRUE	
SNU216_PC2_01	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.90%	2	3	3	0.02%	5.07%	SFVPEEEKHEER	R	V	95.00%	2.19	0.275	0	0	1	0	2	1,595.67	835	846	TRUE	
SNU216_PC2_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	3	4	4	0.03%	7.85%	AQQQEEQGSVNDVKEEEKEEK	K	E	95.00%	4.53	0.306	0	0	1	0	2	2,541.10	552	572	TRUE	
SNU216_PC2_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	3	4	4	0.03%	7.85%	MEVGPFSTGQESPTAENAR	R	L	95.00%	4.2	0.465	0	1	1	0	2	2,087.87	606	624	TRUE	
SNU216_PC2_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	3	4	4	0.03%	7.85%	STESDVKADGDSK	K	G	95.00%	3.01	0.144	0	1	0	0	2	1,418.57	235	247	TRUE	
SNU216_PC2_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	2.71	0.28	0	1	0	0	2	1,764.73	414	426	TRUE	
SNU216_PC2_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	RSQSIEQESQEK	R	Q	95.00%	3.2	0.206	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216_PC2_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	SQSIEQESQEK	R	Q	95.00%	2.26	0.346	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216_PC2_01	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	ELEHNAEETYGENDENTDDKNNDGEEQEV	K	D	95.00%	5.01	0.468	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216_PC2_01	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	GREEHYEEEEEEEEDGAAVAEK	K	S	95.00%	3.51	0.354	0	0	1	0	2	2,644.02	668	689	TRUE	
SNU216_PC2_01	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	DVHAASSPGMGGAAASWAGWAVTGVSSI	K	L	95.00%	3.41	0.421	0	0	1	0	2	2,996.36	553	583	TRUE	
SNU216_PC2_01	Kinase-like protein	IPI00102059	89,631.90	99.80%	2	3	3	0.02%	6.68%	PSTQPRPDSWGEDNWEGLETDSR	R	Q	95.00%	5.28	0.459	0	1	1	0	2	2,739.13	746	768	TRUE	
SNU216_PC2_01	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	2.49%	SESPSKDFGPTLGLK	K	K	95.00%	2.34	0.257	0	1	0	0	2	1,642.77	728	742	TRUE	
SNU216_PC2_01	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	2.49%	SSSLESLQTAVAEVR	K	K	95.00%	2.74	0.468	0	1	0	0	2	1,656.78	744	758	TRUE	
SNU216_PC2_01	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	6	6	0.04%	10.10%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	4.83	0.4	0	1	1	1	2	2,616.22	446	467	TRUE	
SNU216_PC2_01	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	6	6	0.04%	10.10%	SANGGSESDGEENIGWSTVNLDEEK	R	Q	95.00%	4.22	0.506	0	1	1	0	2	2,704.09	591	615	TRUE	
SNU216_PC2_01	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	6	6	0.04%	10.10%	VENMDISDEEEGGAPPPGSPQVLEEDEAELI	R	Q	95.00%	4.99	0.52	0	0	1	0	2	3,840.60	468	501	TRUE	
SNU216_PC2_01	Putative rRNA methyltransferase 3	IPI00217686	96,577.50	100.00%	1	1	1	0.01%	2.95%	ALDISLSSGEEDEGDEEDSTAGTTK	K	Q	95.00%	4.6	0.504	0	1	0	0	2	2,716.03	329	353	TRUE	
SNU216_PC2_01	smooth muscle cell associated protein-1 isoform	IPI00072534	103,078.90	100.00%	1	1	1	0.01%	1.48%	PATPGASSVEQLRK	R	E	95.00%	4.1	0.49	0	0	1	0	2	1,520.75	13	26	TRUE	
SNU216_PC2_01	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	5	0.03%	5.12%	ALEEGDGSVSGSSPR	R	S	95.00%	3.45	0.27	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216_PC2_01	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	5	0.03%	5.12%	IDENSDKEMEVEESPEK	K	I	95.00%	3.82	0.388	0	2	1	0	2	2,087.84	493	509	TRUE	
SNU216_PC2_01	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	5	0.03%	5.12%	TGRDTPENGETAIGAENSEK	K	I	93.70%	2.69	0.189	0	1	0	0	2	2,155.91	473	492	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	5	0.03%	4.05%	DSENLASPSEYPENGER	R	F	95.00%	3.65	0.194	0	1	0	0	2	1,973.78	617	633	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	5	0.03%	4.05%	PAPPPQSQSPEVEQLGR	K	V	95.00%	2.71	0.288	0	1	0	0	2	1,896.89	926	942	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	5	0.03%	4.05%	TAPLPPASQTTPLQMALNGKPAPPPQSQSP	K	V	95.00%	4.87	0.405	0	0	1	0	2	3,913.95	906	942	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	5	0.03%	4.05%	YGLQDSDEEEEEHPSK	K	T	95.00%	4.23	0.411	0	1	1	0	2	1,971.75	883	898	TRUE	
SNU216_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	3	5	0.03%	2.84%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.51	0.384	0	0	2	1	2	2,672.22	157	179	TRUE	
SNU216_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	3	5	0.03%	2.84%	TGSGSPFAGNSPAR	K	E	95.00%	2.67	0.302	0	2	0	0	2	1,385.58	1265	1278	TRUE	
SNU216_PC2_01	LKB1 interacting protein	IPI00170934	121,345.00	99.80%	2	2	2	0.01%	2.91%	DHGSWSLSPPPER	R	C	95.00%	2.37	0.432	0	1	0	0	2	1,544.65	781	793	TRUE	
SNU216_PC2_01	LKB1 interacting protein	IPI00170934	121,345.00	99.80%	2	2	2	0.01%	2.91%	SPRPTGSDLLPGAPILSLR	R	F	95.00%	2.72	0.211	0	0	1	0	2	2,027.07	610	628	TRUE	
SNU216_PC2_01	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	4	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	4.9	0.591	0	0	2	0	2	3,332.21	541	570	TRUE	
SNU216_PC2_01	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	4	0.03%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	4.52	0.354	0	0	1	1	2	4,263.69	541	580	TRUE	
SNU216_PC2_01	Drebrin	IPI00003406,IPI00295624	71,293.30	100.00%	1	1	1	0.01%	1.23%	LSSPVLHR	R	L	95.00%	2.24	0.159	0	1	0	0	2	988.4976	139	146	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	5	7	11	0.07%	10.00%	EGEETEGSEEDDKENDK	K	T	95.00%	2.69	0.58	0	1	0	0	2	2,099.69	473	489	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	5	7	11	0.07%	10.00%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.67	0.486	0	0	4	2	2	3,506.38	473	502	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	5	7	11	0.07%	10.00%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	5.46	0.524	0	1	1	0	2	2,869.29	503	526	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	5	7	11	0.07%	10.00%	VAQGATEKSPEDK	K	V	95.00%	1.91	0.299	0	1	1	0	2	1,439.64	443	455	TRUE	
SNU216_PC2_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	5	7	11	0.07%	10.00%	VAQGATEKSPEDKVQIAANEETQER	K	E	95.00%	3.6	0.226	0	0	1	0	2	2,808.31	443	467	TRUE	
SNU216_PC2_01	sarcolemma associated protein	IPI00030531	93,205.10	99.50%	1	1	1	0.01%	1.48%	ESDFSDTLSPSK	K	E	89.70%	2.2	0.203	0	1	0	0	2	1,392.56	427	438	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	93.60%	5.12	0.0645	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	3.85	0.396	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.44	0.492	0	2	1	0	2	1,798.73	964	980	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	4.17	0.403	0	0	1	0	2	3,176.48	936	963	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	7	0.04%	6.67%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.33	0.181	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216_PC2_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.90%	1	1	1	0.01%	1.99%	QTPMASSPRPK	K	M	95.00%	3.09	0.448	0	1	0	0	2	1,279.59	150	160	TRUE	
SNU216_PC2_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	3	0.02%	4.78%	HADNSSDTEMEDMIAEETLEEMDSELLK	K	C	95.00%	4.92	0.588	0	0	1	0	2	3,292.31	757	784	TRUE	
SNU216_PC2_01	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	99.80%	2	2	3	0.02%	4.78%	MDRTPPPPTLSPAAITVGR	R	G	95.00%	4.24	0.366	0	0	2	0	2	2,057.03	606	624	TRUE	
SNU216_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	6	0.04%	10.30%	AAKNSEEEEEEK	K	K	95.00%	3.33	0.335	0	1	0	0	2	1,472.58	569	580	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	6	0.04%	10.30%	GGSISVQVNSIKFDSE	R	-	95.00%	2.98	0.252	0	2	0	0	2	1,746.79	694	709	TRUE	
SNU216_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	6	0.04%	10.30%	SPAVKPAAAPK	K	Q	95.00%	2.11	0.437	0	1	0	0	2	1,116.58	407	417	TRUE	
SNU216_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	6	0.04%	10.30%	SSSSEDSSSDEEEEQKKPMK	K	N	95.00%	2.74	0.284	0	0	1	0	2	2,323.91	274	293	TRUE	
SNU216_PC2_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	6	0.04%	10.30%	VAGGAAPSKPASAK	K	K	93.70%	2.34	0.188	0	1	0	0	2	1,291.64	507	520	TRUE	
SNU216_PC2_01	DNA-directed RNA polymerase, mitochondrial pre	IPI00298738	140,214.60	98.90%	2	2	2	0.01%	2.25%	QKNGFPPNFIHSLDSSHMMLTALHCYR	K	K	93.20%	4.01	0.223	0	0	0	1	2	3,393.44	1130	1156	TRUE	
SNU216_PC2_01	DNA-directed RNA polymerase, mitochondrial pre	IPI00298738	140,214.60	98.90%	2	2	2	0.01%	2.25%	QKNGFPPNFIHSLDSSHMMLTALHCYRK	K	G	83.60%	3.74	0.187	0	0	0	1	2	3,521.54	1130	1157	TRUE	
SNU216_PC2_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	2	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.77	0.515	0	0	2	0	2	2,205.10	225	244	TRUE	
SNU216_PC2_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	5	5	5	0.03%	10.10%	ENHGQADHSPSMTATHFPR	R	V	95.00%	4.3	0.295	0	0	1	0	2	2,199.90	168	186	TRUE	
SNU216_PC2_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	5	5	5	0.03%	10.10%	ERTESEVPPRPASPK	K	V	95.00%	2.47	0.329	0	1	0	0	2	1,759.84	446	460	TRUE	
SNU216_PC2_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	5	5	5	0.03%	10.10%	NSGSSQGLGGSPGSHSHTTMANK	K	V	83.50%	3.98	0.0957	0	0	1	0	2	2,278.95	79	101	TRUE	
SNU216_PC2_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	5	5	5	0.03%	10.10%	SPPETAAPVEDMAR	R	R	95.00%	2.65	0.325	0	1	0	0	2	1,550.66	464	477	TRUE	
SNU216_PC2_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	5	5	5	0.03%	10.10%	TESEVPPRPASPK	R	V	95.00%	2.79	0.369	0	1	0	0	2	1,474.69	448	460	TRUE	
SNU216_PC2_01	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	4	9	0.06%	11.60%	AAPEASSPPASPLQHLLPGK	K	A	95.00%	3.72	0.377	0	2	2	0	2	2,048.02	686	705	TRUE	
SNU216_PC2_01	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	4	9	0.06%	11.60%	GLLAQGLRPESPPPAGPLLNGAPAGESPQPI	R	A	95.00%	6.56	0.512	0	0	4	0	2	3,176.55	655	685	TRUE	
SNU216_PC2_01	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	4	9	0.06%	11.60%	QVVSVVQDEEVGLPFEASPESPPPASPDGV	K	G	95.00%	5.98	0.555	0	0	1	0	2	3,641.73	621	654	TRUE	
SNU216_PC2_01	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	99.80%	2	2	3	0.02%	3.05%	APSIDGKEELDLAEK	K	M	95.00%	2.4	0.276	0	1	0	0	2	1,694.79	458	472	TRUE	
SNU216_PC2_01	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	99.80%	2	2	3	0.02%	3.05%	ATPPPSPLLSELLK	K	K	95.00%	2.11	0.364	0	2	0	0	2	1,542.82	263	276	TRUE	
SNU216_PC2_01	Isoform 1 of Transcription intermediary factor 1-t	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SGEGEVSGLMR	R	K	95.00%	2.21	0.446	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216_PC2_01	Isoform 1 of Transcription intermediary factor 1-t	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.85	0.26	0	1	0	0	2	1,444.63	471	483	TRUE	
SNU216_PC2_01	hypothetical protein LOC55215	IPI00019447,IPI00477345	102,390.30	100.00%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	90.90%	1.93	0.241	0	1	0	0	2	1,170.54	41	50	TRUE	
SNU216_PC2_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	4	4	0.03%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	3.53	0.272	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216_PC2_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	4	4	0.03%	6.97%	VAHEPVAPPEDKESESEAKVDGETASDSESF	R	A	95.00%	3.69	0.229	0	0	1	0	2	3,362.45	8	38	TRUE	
SNU216_PC2_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	4	4	0.03%	6.97%	VDGETASDSESR	K	A	95.00%	2.56	0.486	1	1	0	0	2	1,332.50	27	38	TRUE	
SNU216_PC2_01	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	3	3	0.02%	1.27%	AKPAMPQDSVPSPR	K	S	95.00%	3.43	0.398	0	1	1	0	2	1,560.72	470	483	TRUE	
SNU216_PC2_01	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	3	3	0.02%	1.27%	PAMPQDSVPSPR	K	S	95.00%	2.12	0.238	0	1	0	0	2	1,361.59	472	483	TRUE	
SNU216_PC2_01	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	4	4	0.03%	4.46%	FSGFSAKPNNSGEAPSSPTPK	K	R	95.00%	3.94	0.373	0	1	1	0	2	2,186.98	139	159	TRUE	
SNU216_PC2_01	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	4	4	0.03%	4.46%	KFSGFSAKPNNSGEAPSSPTPK	R	R	95.00%	4.51	0.39	0	0	1	0	2	2,315.07	138	159	TRUE	
SNU216_PC2_01	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	4	4	0.03%	4.46%	LTTTGQVTSPVKGASFVTSTNPR	K	K	95.00%	3	0.261	0	0	1	0	2	2,429.21	115	137	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase TAO3	IPI00410485	105,408.50	99.80%	1	2	3	0.02%	2.45%	NGPLNESQEDEEDSEHGTSLNR	R	E	95.00%	4.84	0.513	0	1	2	0	2	2,537.01	318	339	TRUE	
SNU216_PC2_01	Isoform 2 of ATR-interacting protein	IPI00102918,IPI00103517,IP	85,838.20	99.80%	2	3	3	0.02%	3.66%	LAAPSVSHVSPR	K	K	95.00%	2.47	0.434	0	1	1	0	2	1,300.64	215	226	TRUE	
SNU216_PC2_01	Isoform 2 of ATR-interacting protein	IPI00102918,IPI00103517,IP	85,838.20	99.80%	2	3	3	0.02%	3.66%	SLVHRLSDGDMTSALR	R	G	95.00%	2.63	0.287	0	0	1	0	2	1,837.86	512	527	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	5	0.03%	1.53%	QPLLLSEDEEDTK	K	R	95.00%	2.67	0.191	0	2	0	0	2	1,596.70	34	46	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	2	3	5	0.03%	1.53%	QPLLLSEDEEDTKR	K	V	95.00%	2.74	0.267	0	2	1	0	2	1,752.81	34	47	TRUE	
SNU216_PC2_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.03%	15.00%	AGDLLEDSPKRPK	R	E	95.00%	3.1	0.162	0	0	1	0	2	1,505.74	158	170	TRUE	
SNU216_PC2_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.03%	15.00%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.26	0.298	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216_PC2_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.03%	15.00%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	4.13	0.401	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC2_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	4	4	4	0.03%	15.00%	RAGDLLEDSPK	R	R	95.00%	2.25	0.271	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216_PC2_01	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	256,185.70	99.70%	1	1	1	0.01%	0.35%	EVSPSDVR	R	E	93.20%	1.77	0.239	0	1	0	0	2	968.4085	1978	1985	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	3	5	5	0.03%	4.54%	IDDRDSDEEGASDR	K	R	95.00%	3.47	0.451	0	1	1	0	2	1,659.61	777	790	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	3	5	5	0.03%	4.54%	QKIDDRDSDEEGASDR	K	R	95.00%	3.78	0.458	0	1	1	0	2	1,915.77	775	790	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	3	5	5	0.03%	4.54%	QPEKEEEEEAGESVEDIFSEVVGR	K	K	88.50%	3.05	0.215	0	0	1	0	2	2,801.20	632	655	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	P	95.00%	2.91	0.46	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.73	0.407	0	0	1	0	2	3,054.38	939	964	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	17	0.11%	5.94%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.67	0.503	0	3	2	0	2	2,882.10	701	724	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	17	0.11%	5.94%	KRSEDESETEDEEEK	K	S	95.00%	3.21	0.171	0	2	0	0	2	2,079.67	666	680	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	17	0.11%	5.94%	RSEDESETEDEEEK	K	S	95.00%	3.22	0.346	0	1	0	0	2	1,871.61	667	680	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	17	0.11%	5.94%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	4.83	0.524	0	0	1	0	2	2,764.06	667	688	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	17	0.11%	5.94%	SEDESETEDEEEK	R	S	95.00%	2.45	0.455	0	1	0	0	2	1,715.51	668	680	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	17	0.11%	5.94%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.6	0.608	0	2	1	0	2	2,607.96	668	688	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	10	17	0.11%	5.94%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	3.75	0.596	0	2	2	0	2	2,844.03	668	689	TRUE	
SNU216_PC2_01	hypothetical protein LOC23131	IPI00457284	164,200.50	99.80%	2	2	2	0.01%	1.93%	ETSMTEPSEPGSK	K	A	95.00%	1.9	0.343	0	0	1	0	2	1,635.49	467	479	TRUE	
SNU216_PC2_01	hypothetical protein LOC23131	IPI00457284	164,200.50	99.80%	2	2	2	0.01%	1.93%	QEPGGSHGSETEDTGR	K	S	95.00%	2.36	0.437	0	1	0	0	2	1,723.66	645	660	TRUE	
SNU216_PC2_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	1	1	1	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.49	0.333	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC2_01	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	GSLAPQDSDSEVSQNR	K	S	95.00%	3.14	0.414	0	1	0	0	2	1,769.73	418	433	TRUE	
SNU216_PC2_01	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	HSSADNLANEMTYITETEDVFYTYK	R	G	95.00%	5.81	0.527	0	0	1	0	2	3,022.27	393	417	TRUE	
SNU216_PC2_01	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	2	2	2	0.01%	3.62%	HYGITSPISLAAPK	K	E	95.00%	4.41	0.465	0	1	0	0	2	1,534.77	19	32	TRUE	
SNU216_PC2_01	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	2	2	2	0.01%	3.62%	TSPLNSSGSSQGR	K	N	95.00%	2.78	0.485	0	1	0	0	2	1,357.57	544	556	TRUE	
SNU216_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	7	9	10	0.06%	12.80%	ADSDGAKPEPVAMAR	K	S	95.00%	2.76	0.343	0	1	1	0	2	1,594.69	238	252	TRUE	
SNU216_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	7	9	10	0.06%	12.80%	GEAERGSGGSSGDELR	R	E	95.00%	2.3	0.372	0	1	0	0	2	1,803.60	360	375	TRUE	
SNU216_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	7	9	10	0.06%	12.80%	GEAERGSGGSSGDELREDDEPVK	R	K	95.00%	2.15	0.317	0	1	0	0	2	2,615.95	360	382	TRUE	
SNU216_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	7	9	10	0.06%	12.80%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	4.4	0.469	0	1	1	0	2	2,322.91	616	635	TRUE	
SNU216_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	7	9	10	0.06%	12.80%	GRGPPSSSDSEPEAELER	R	E	95.00%	2.58	0.402	0	1	0	0	2	2,139.77	390	407	TRUE	
SNU216_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	7	9	10	0.06%	12.80%	GSGGSSGDELREDDEPVK	R	K	95.00%	2.34	0.373	0	2	0	0	2	2,073.71	365	382	TRUE	
SNU216_PC2_01	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	7	9	10	0.06%	12.80%	KRSEGFSMDR	R	K	95.00%	2.05	0.238	0	0	1	0	2	1,292.55	452	461	TRUE	
SNU216_PC2_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.37%	GDDDEESDEEAVK	K	K	95.00%	2.89	0.299	0	1	0	0	2	1,517.52	613	625	TRUE	
SNU216_PC2_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.37%	WDEQTSNTKGDDDEESDEEAVKK	K	T	95.00%	3.81	0.245	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216_PC2_01	146 kDa protein	IPI00215638,IPI00742905	140,884.40	100.00%	1	1	1	0.01%	3.35%	SEEVPAFGVASPPPLTDTPDTTANAEGDLPT	K	A	84.00%	4.72	0.0568	0	0	1	0	2	4,489.15	77	120	TRUE	
SNU216_PC2_01	Protein KIAA0776	IPI00396421	89,598.00	99.80%	1	1	1	0.01%	2.02%	KDDDSDDESQSSHTGK	R	K	95.00%	3.98	0.471	0	0	1	0	2	1,830.67	454	469	TRUE	
SNU216_PC2_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.03%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	3.9	0.37	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216_PC2_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.03%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	93.10%	3.2	0.0852	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216_PC2_01	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.03%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.45	0.499	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216_PC2_01	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	100.00%	2	2	3	0.02%	4.92%	IQQFDDGGSDEEDIWEEK	R	H	95.00%	4.22	0.458	0	2	0	0	2	2,219.87	529	546	TRUE	
SNU216_PC2_01	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	100.00%	2	2	3	0.02%	4.92%	SSSGSTDSEESTDSEEEDGAK	R	Q	95.00%	3.93	0.521	0	1	0	0	2	2,213.77	558	578	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	8	9	0.06%	7.61%	AESPAEKVPEESVLPLVQK	K	S	95.00%	3.91	0.486	0	1	1	0	2	2,130.07	488	506	TRUE	
SNU216_PC2_01	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	8	9	0.06%	7.61%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.69	0.453	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216_PC2_01	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	8	9	0.06%	7.61%	GVPAGNSDTEGGQPGRK	K	R	93.00%	2.06	0.231	0	1	0	0	2	1,706.75	832	848	TRUE	
SNU216_PC2_01	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	8	9	0.06%	7.61%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	6.09	0.447	0	0	0	1	2	3,598.73	873	904	TRUE	
SNU216_PC2_01	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	8	9	0.06%	7.61%	SLSPGVSR	K	D	95.00%	1.51	0.32	0	1	0	0	2	882.4081	655	662	TRUE	
SNU216_PC2_01	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	8	9	0.06%	7.61%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.27	0.319	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC2_01	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	8	9	0.06%	7.61%	TAQVPSPPR	R	G	95.00%	2.42	0.353	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC2_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	21	0.13%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	3.67	0.353	0	1	1	0	2	2,141.98	652	670	TRUE	
SNU216_PC2_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	21	0.13%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.67	0.513	0	16	2	0	2	2,238.86	634	651	TRUE	
SNU216_PC2_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	21	0.13%	4.08%	TSVQTEDDQLIAGQSAR	R	A	95.00%	3.95	0.447	0	1	0	0	2	1,898.85	654	670	TRUE	
SNU216_PC2_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	99.80%	1	1	1	0.01%	6.14%	EAEEGEDDDRDSANGEDDS	K	-	95.00%	2.68	0.624	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC2_01	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	4.22%	AGSNEDPILAPSGTPPPTIPPDETFGGR	R	V	95.00%	4.16	0.392	0	0	1	0	2	2,870.33	644	671	TRUE	
SNU216_PC2_01	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	4.22%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.48	0.234	0	1	0	0	2	1,606.75	478	493	TRUE	
SNU216_PC2_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	99.80%	2	2	2	0.01%	1.71%	DVRNSDMHLLDLESMGK	K	S	95.00%	3.41	0.332	0	0	1	0	2	2,039.89	284	300	TRUE	
SNU216_PC2_01	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	99.80%	2	2	2	0.01%	1.71%	NSDMHLLDLESMGK	R	S	95.00%	2.92	0.332	0	1	0	0	2	1,669.70	287	300	TRUE	
SNU216_PC2_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	99.90%	2	2	2	0.01%	4.58%	AIGSTSKPQESPK	R	G	81.50%	2.26	0.144	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC2_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	99.90%	2	2	2	0.01%	4.58%	KTPSKPPAQLSPSVPK	K	R	95.00%	3.16	0.405	0	0	1	0	2	1,741.93	256	271	TRUE	
SNU216_PC2_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	5	0.03%	7.71%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	5.6	0.469	0	0	1	2	2	3,538.48	736	766	TRUE	
SNU216_PC2_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	5	0.03%	7.71%	SHILEDDENSVDISMLK	R	T	95.00%	5	0.495	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216_PC2_01	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	3	4	5	0.03%	7.71%	TGSSLLKEEEEDGQEGSIHNLPLVTSQRPFYI	K	Q	90.00%	3.64	0.127	0	0	0	1	2	4,392.05	268	306	TRUE	
SNU216_PC2_01	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.80%	1	1	1	0.01%	2.06%	VNPHKVSPASSVDSNIPSSQGYKK	K	E	95.00%	4.37	0.24	0	0	0	1	2	2,606.26	481	504	TRUE	
SNU216_PC2_01	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	1	1	1	0.01%	1.10%	NFYESDDDQKEK	K	T	86.20%	2.11	0.175	0	1	0	0	2	1,597.61	272	283	TRUE	
SNU216_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	5	6	6	0.04%	15.80%	DEPAESPSETPGPR	R	P	95.00%	2.42	0.333	0	1	0	0	2	1,548.62	592	605	TRUE	
SNU216_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	5	6	6	0.04%	15.80%	DEPAESPSETPGPRPAGPAGDEPAESPSETP	R	P	95.00%	5.5	0.613	0	0	1	0	2	3,448.48	592	625	TRUE	
SNU216_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	5	6	6	0.04%	15.80%	KVDEGAGDSAAVASGGAQTLALAGSPAPSI	R	A	95.00%	6.83	0.548	0	0	1	0	2	3,054.45	460	492	TRUE	
SNU216_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	5	6	6	0.04%	15.80%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.91	0.525	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216_PC2_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	5	6	6	0.04%	15.80%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.48	0.404	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	117,269.90	99.80%	2	2	3	0.02%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	4.83	0.328	0	0	1	0	2	2,780.35	80	103	TRUE	
SNU216_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	117,269.90	99.80%	2	2	3	0.02%	2.28%	SPTSPLNMK	K	L	95.00%	1.98	0.388	0	2	0	0	2	1,054.46	95	103	TRUE	
SNU216_PC2_01	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	KVSPIKINLK	R	N	95.00%	2.59	0.443	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216_PC2_01	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	99.80%	2	2	2	0.01%	2.93%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	3.97	0.438	0	1	0	0	2	1,941.82	934	951	TRUE	
SNU216_PC2_01	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	99.80%	2	2	2	0.01%	3.59%	VTPQEEADSDVGEEPDSENTPQK	K	A	95.00%	3.98	0.466	0	1	0	0	2	2,581.05	120	142	TRUE	
SNU216_PC2_01	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	99.80%	2	2	2	0.01%	3.59%	VTPQEEADSDVGEEPDSENTPQKADK	K	D	95.00%	4.5	0.329	0	0	1	0	2	2,895.21	120	145	TRUE	
SNU216_PC2_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	2	2	0.01%	1.73%	DYDDMSPR	R	R	95.00%	1.69	0.415	1	1	0	0	2	1,078.35	279	286	TRUE	
SNU216_PC2_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.32	0.356	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216_PC2_01	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	3.79	0.406	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216_PC2_01	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.17	0.424	0	0	1	0	2	1,656.70	340	354	TRUE	
SNU216_PC2_01	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.35	0.402	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216_PC2_01	Isoform 2 of StAR-related lipid transfer protein 1	IPI00329291,IPI00395688,IP	120,684.60	99.80%	2	2	2	0.01%	3.17%	ALSIESLSPTDSSNGVNWR	K	T	95.00%	3.43	0.356	0	1	0	0	2	2,112.96	374	392	TRUE	
SNU216_PC2_01	Isoform 2 of StAR-related lipid transfer protein 1	IPI00329291,IPI00395688,IP	120,684.60	99.80%	2	2	2	0.01%	3.17%	MHEFHSQENLVVHIPK	R	D	95.00%	2.86	0.205	0	0	1	0	2	2,024.94	349	364	TRUE	
SNU216_PC2_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	5	5	0.03%	3.98%	AQGEPVAGHESPK	R	I	95.00%	2.8	0.413	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216_PC2_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	5	5	0.03%	3.98%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.2	0.544	0	1	1	1	2	2,016.94	789	806	TRUE	
SNU216_PC2_01	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	3	5	5	0.03%	3.98%	DSDQVAQSDGEESPAAEEQLLGEHIK	K	E	95.00%	4.24	0.501	0	0	1	0	2	2,862.23	520	545	TRUE	
SNU216_PC2_01	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	99.90%	1	1	1	0.01%	2.21%	AVPMAPAPASPGSSNDSSAR	K	S	93.80%	3.2	0.09	0	1	0	0	2	1,949.84	750	769	TRUE	
SNU216_PC2_01	Isoform Beta of ATP-dependent DNA helicase Q5	IPI00185769	108,859.20	99.80%	2	2	2	0.01%	3.73%	GEVPGGSAHYGGPSPEKK	R	A	95.00%	2.98	0.391	0	1	0	0	2	1,833.82	714	731	TRUE	
SNU216_PC2_01	Isoform Beta of ATP-dependent DNA helicase Q5	IPI00185769	108,859.20	99.80%	2	2	2	0.01%	3.73%	YDEGSGGSGDEGRDEAHKR	R	E	95.00%	3.04	0.375	0	0	1	0	2	2,181.79	484	502	TRUE	
SNU216_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	8.19%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.8	0.463	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	8.19%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.34	0.396	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216_PC2_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	8.19%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.22	0.396	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.03	0.344	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	GSPTSAYPER	K	K	95.00%	1.82	0.378	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	HGSDPAFAPGPR	R	G	95.00%	2.96	0.577	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	LDYVPSSASR	R	E	95.00%	2.08	0.248	0	2	0	0	2	1,174.51	508	517	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	RGSLTLTISGESPK	R	A	95.00%	2.76	0.185	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	RGSPTTGFIEQKGSPTSAYPER	R	R	92.70%	4.62	0.0727	0	0	1	0	2	2,526.11	890	911	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	RGSPVPPVPER	R	R	88.00%	2.24	0.172	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	RGSPVPPVPERR	R	S	95.00%	3.82	0.34	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	RLSLGQGDSTEAATEER	R	G	95.00%	4.12	0.481	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	3.2	0.305	0	0	2	0	2	2,639.07	4	25	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	RSSPVPPVPER	R	R	95.00%	2.41	0.298	0	0	1	0	2	1,300.64	923	933	TRUE	
SNU216_PC2_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	12	14	0.09%	15.80%	VPAAFPTKVPVPGPGSGGNGPER	R	E	95.00%	3.62	0.263	0	0	1	0	2	2,268.12	632	654	TRUE	
SNU216_PC2_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	2	4	4	0.03%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	5.22	0.572	0	0	1	1	2	3,222.36	68	95	TRUE	
SNU216_PC2_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	2	4	4	0.03%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.13	0.528	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216_PC2_01	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	99.80%	2	2	3	0.02%	3.84%	ENYSDSEEEDDDDVASSR	R	Q	95.00%	4.27	0.641	0	2	0	0	2	2,221.70	256	273	TRUE	
SNU216_PC2_01	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	99.80%	2	2	3	0.02%	3.84%	VLLGFSSDESDVEASPR	K	D	95.00%	3.34	0.5	0	1	0	0	2	1,887.84	135	151	TRUE	
SNU216_PC2_01	Isoform 1 of NEDD9-interacting protein with calp	IPI00157757,IPI00441963,IP	117,875.60	99.80%	1	1	1	0.01%	2.34%	SMAHSPGPVSQASPGTSSAVLFLSK	K	L	95.00%	4.97	0.495	0	0	1	0	2	2,523.20	613	637	TRUE	
SNU216_PC2_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	3	3	3	0.02%	3.44%	AGAESPTMSVDGR	R	Q	95.00%	2.41	0.384	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216_PC2_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	3	3	3	0.02%	3.44%	RAGAESPTMSVDGR	R	Q	95.00%	2.3	0.272	0	1	0	0	2	1,513.65	402	415	TRUE	
SNU216_PC2_01	Zinc finger protein 217	IPI00025310	115,272.80	100.00%	3	3	3	0.02%	3.44%	TKADVTPPPDGSTTHNLEVSPK	K	E	95.00%	4.54	0.442	0	0	1	0	2	2,371.12	643	664	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	4	4	4	0.03%	4.62%	KTVEDEDQDSEEEKDNDSYIK	K	E	95.00%	3.93	0.368	0	0	1	0	2	2,596.05	405	425	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	4	4	4	0.03%	4.62%	NINMDNDLEVLTSSPTR	K	N	95.00%	4.69	0.467	0	1	0	0	2	1,998.88	538	554	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	4	4	4	0.03%	4.62%	TVEDEDQDSEEEK	K	D	91.50%	1.9	0.24	0	1	0	0	2	1,632.58	406	418	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	4	4	4	0.03%	4.62%	TVEDEDQDSEEEKDNDSYIK	K	E	95.00%	4.64	0.516	0	1	0	0	2	2,467.95	406	425	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	14.10%	KGSVSHDTVQPR	K	T	95.00%	2.73	0.412	0	1	1	0	2	1,390.65	89	100	TRUE	
SNU216_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	14.10%	LKSEDELRPEVDEHTQK	R	T	95.00%	3.01	0.277	0	0	0	1	2	2,132.99	655	671	TRUE	
SNU216_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	14.10%	RQSSSYDDPWK	R	I	95.00%	2.75	0.291	0	1	0	0	2	1,448.58	218	228	TRUE	
SNU216_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	14.10%	SSSLDMNR	R	T	95.00%	1.98	0.182	1	1	0	0	2	989.3758	508	515	TRUE	
SNU216_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	14.10%	TGSDHTNPTSPLLVKPSDLLEENKINSSVK	R	F	95.00%	6.37	0.0465	0	0	0	1	2	3,300.64	421	450	TRUE	
SNU216_PC2_01	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	6	8	8	0.05%	14.10%	TSADAQEPASPVVSPQQSPPTSPHTWR	R	K	94.60%	3.82	0.125	0	0	1	0	2	3,098.27	101	127	TRUE	
SNU216_PC2_01	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	2	3	4	0.03%	7.13%	DYLLSESEDEGDNDGERK	K	H	95.00%	3.33	0.354	0	1	0	0	2	2,230.81	25	42	TRUE	
SNU216_PC2_01	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	2	3	4	0.03%	7.13%	EAATQEDPEQLPELEAHGVSESEGEERPVAE	K	E	95.00%	5.77	0.49	0	0	2	1	2	4,195.92	386	422	TRUE	
SNU216_PC2_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	4	5	0.03%	7.50%	EPTPSIASDISLPIATQELR	K	Q	95.00%	3.38	0.498	0	2	0	0	2	2,218.10	723	742	TRUE	
SNU216_PC2_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	4	5	0.03%	7.50%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	92.20%	5.84	0.0341	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216_PC2_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	4	5	0.03%	7.50%	SSSSLLASPGHISVK	R	E	95.00%	3.03	0.237	0	1	0	0	2	1,549.76	708	722	TRUE	
SNU216_PC2_01	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	4	5	0.03%	7.50%	SSSSLLASPGHISVKEPTPSIASDISLPIATQEL	R	Q	95.00%	5.69	0.0605	0	0	1	0	2	3,748.84	708	742	TRUE	
SNU216_PC2_01	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	3	4	4	0.03%	7.61%	GSDALSETSSVSHIEDLEK	R	V	95.00%	3.38	0.267	0	1	1	0	2	2,083.91	713	731	TRUE	
SNU216_PC2_01	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	3	4	4	0.03%	7.61%	SLRGSDALSETSSVSHIEDLEK	R	V	95.00%	4.24	0.344	0	0	1	0	2	2,440.12	710	731	TRUE	
SNU216_PC2_01	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	3	4	4	0.03%	7.61%	VERLSSGPEQITLEASSTEGHPGAPSPQHTD	K	G	95.00%	6.55	0.493	0	0	0	1	2	4,126.90	732	769	TRUE	
SNU216_PC2_01	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	99.80%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGSSASGLAK	K	V	95.00%	3.43	0.162	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216_PC2_01	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	NSLTGEEGQLAR	R	V	95.00%	2.17	0.36	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216_PC2_01	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	RNSLTGEEGQLAR	R	V	95.00%	3.33	0.225	0	1	0	0	2	1,510.70	110	122	TRUE	
SNU216_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	4	4	4	0.03%	1.84%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.79	0.51	0	1	0	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	4	4	4	0.03%	1.84%	GYYSPYSVSGSGSTAGSR	K	T	82.80%	3.15	0.0486	0	1	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	4	4	4	0.03%	1.84%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	90.20%	5.49	0.0401	0	0	1	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216_PC2_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	4	4	4	0.03%	1.84%	SSSVGSSSSYPISPAVSR	R	T	89.70%	3.78	0.0312	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	6	7	0.04%	14.70%	AGSSAAGASGWTSAGSLNSVPTNSAQQGI	K	G	95.00%	5.18	0.0858	0	0	1	0	2	3,892.74	721	761	TRUE	
SNU216_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	6	7	0.04%	14.70%	ANFDEENAYFEDEEEDSSNVDLPYIPAENSP	R	Q	95.00%	3.23	0.414	0	0	1	0	2	3,886.58	67	99	TRUE	
SNU216_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	6	7	0.04%	14.70%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	5.59	0.496	0	0	1	0	2	3,457.45	100	129	TRUE	
SNU216_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	6	7	0.04%	14.70%	RANFDEENAYFEDEEEDSSNVDLPYIPAENS	K	Q	95.00%	6.97	0.449	0	0	1	0	2	4,042.68	66	99	TRUE	
SNU216_PC2_01	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	6	7	0.04%	14.70%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	5.22	0.435	0	0	2	1	2	3,749.61	163	195	TRUE	
SNU216_PC2_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	3.92%	AHAWPSPYK	R	D	95.00%	2.23	0.411	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216_PC2_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	3.92%	AHAWPSPYKDYEVK	R	K	95.00%	3.02	0.302	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216_PC2_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	3	3	3	0.02%	12.50%	EESDGEYDEFGR	R	K	95.00%	2.67	0.562	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC2_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	3	3	3	0.02%	12.50%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.03	0.536	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216_PC2_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	3	3	3	0.02%	12.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.67	0.572	0	1	0	0	2	2,419.90	147	166	TRUE	
SNU216_PC2_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.51	0.465	0	1	0	0	2	2,816.14	239	264	TRUE	
SNU216_PC2_01	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	2	2	0.01%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.89	0.447	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216_PC2_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	99.80%	2	2	2	0.01%	1.96%	ALTDDSDENEEEEDAFTDQK	K	I	95.00%	4.48	0.549	0	1	0	0	2	2,251.84	1207	1225	TRUE	
SNU216_PC2_01	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	99.80%	2	2	2	0.01%	1.96%	LFDDEASVDEPR	R	R	95.00%	2.02	0.308	0	1	0	0	2	1,472.59	639	650	TRUE	
SNU216_PC2_01	Isoform B of AP-2 complex subunit alpha-1	IPI00256684,IPI00304577	107,557.70	99.40%	1	1	1	0.01%	3.35%	RDPSSNDINGGMEPTPSTVSTPSPSADLLGL	R	A	95.00%	6.43	0.06	0	0	1	0	2	3,348.54	633	664	TRUE	
SNU216_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	5	5	5	0.03%	6.74%	ASGDPGASGMSPR	K	A	95.00%	2.6	0.49	0	1	0	0	2	1,269.49	99	111	TRUE	
SNU216_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	5	5	5	0.03%	6.74%	DRTPPHLLYSDR	R	D	95.00%	2.91	0.301	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	5	5	5	0.03%	6.74%	RNSLEGYSR	R	S	88.30%	1.91	0.259	0	1	0	0	2	1,161.50	560	568	TRUE	
SNU216_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	5	5	5	0.03%	6.74%	SLSPVAAPPLREPR	R	A	95.00%	2.57	0.313	0	0	1	0	2	1,569.82	265	278	TRUE	
SNU216_PC2_01	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	5	5	5	0.03%	6.74%	TFLEGDWTSPSK	R	S	95.00%	2.44	0.349	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216_PC2_01	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	98.50%	1	1	1	0.01%	1.48%	EDVEVAESPLR	R	V	95.00%	2.71	0.326	0	1	0	0	2	1,323.58	510	520	TRUE	
SNU216_PC2_01	DEAH (Asp-Glu-Ala-His) box polypeptide 36	IPI00027415,IPI00217760	114,779.80	100.00%	1	1	1	0.01%	0.69%	FQDGYYS	R	-	95.00%	1.48	0.387	1	0	0	0	2	959.3183	1002	1008	TRUE	
SNU216_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	8.88%	DRSSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.68	0.32	0	0	1	0	2	2,755.34	361	384	TRUE	
SNU216_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	8.88%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	4.73	0.504	0	1	1	0	2	2,253.98	444	462	TRUE	
SNU216_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	8.88%	SRWSGSHQFEQLSGSILWMAPEVIR	K	M	95.00%	6.61	0.469	0	0	1	0	2	2,981.41	602	626	TRUE	
SNU216_PC2_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	5	5	0.03%	8.88%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.72	0.264	0	0	1	0	2	2,484.21	363	384	TRUE	
SNU216_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	7	8	0.05%	12.10%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	5.72	0.173	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	7	8	0.05%	12.10%	AVAEEDNGSIGEETDSSPGR	K	K	95.00%	4.43	0.49	0	1	0	0	2	2,099.84	652	671	TRUE	
SNU216_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	7	8	0.05%	12.10%	DLTHSDSESSLHMSDR	R	Q	95.00%	2.48	0.278	0	1	2	0	2	1,912.74	515	530	TRUE	
SNU216_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	7	8	0.05%	12.10%	KAVAEEDNGSIGEETDSSPGR	K	K	95.00%	4.96	0.117	0	1	0	0	2	2,227.94	651	671	TRUE	
SNU216_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	7	8	0.05%	12.10%	KAVAEEDNGSIGEETDSSPGRK	K	K	93.40%	3.08	0.181	0	0	1	0	2	2,356.03	651	672	TRUE	
SNU216_PC2_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	6	7	8	0.05%	12.10%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	4.76	0.502	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216_PC2_01	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	1	1	1	0.01%	1.97%	PIRPGQHPAASPTHPSAIR	K	G	95.00%	2.61	0.312	0	0	0	1	2	2,070.04	923	941	TRUE	
SNU216_PC2_01	Isoform 1 of GRIP1-associated protein 1	IPI00413942,IPI00607628,IP	96,077.50	100.00%	2	2	2	0.01%	5.11%	SGLEELVLSEMNSPSR	R	T	95.00%	3.33	0.318	0	1	0	0	2	1,827.82	642	657	TRUE	
SNU216_PC2_01	Isoform 1 of GRIP1-associated protein 1	IPI00413942,IPI00607628,IP	96,077.50	100.00%	2	2	2	0.01%	5.11%	SLSSSPQAQPPRPAELSDEEVAELFQR	R	L	95.00%	4.19	0.387	0	0	1	0	2	3,048.43	687	713	TRUE	
SNU216_PC2_01	THO complex subunit 1	IPI00305374	75,668.80	100.00%	1	1	1	0.01%	3.50%	TGEDEDEEDNDALLKENESPDVR	K	R	95.00%	4.35	0.478	0	0	1	0	2	2,699.08	542	564	TRUE	
SNU216_PC2_01	KIAA0284 protein	IPI00180625	163,628.60	99.90%	2	2	2	0.01%	1.97%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	3.88	0.345	0	0	1	0	2	2,030.85	281	298	TRUE	
SNU216_PC2_01	KIAA0284 protein	IPI00180625	163,628.60	99.90%	2	2	2	0.01%	1.97%	RRSPQEGPTWSR	R	G	93.80%	3.16	0.116	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216_PC2_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	99.80%	2	2	2	0.01%	6.12%	AAESETPGKSPEK	K	K	95.00%	3.11	0.472	0	1	0	0	2	1,410.62	418	430	TRUE	
SNU216_PC2_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	99.80%	2	2	2	0.01%	6.12%	ATNESEDEIPQLVPIGK	K	K	95.00%	3.57	0.379	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216_PC2_01	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	99.90%	1	1	1	0.01%	3.05%	GGSPQMDDIKVFQNEVLGTLQR	R	G	95.00%	3.27	0.386	0	0	1	0	2	2,512.19	542	563	TRUE	
SNU216_PC2_01	Double-strand-break repair protein rad21 homolo	IPI00006715	71,691.60	100.00%	1	1	1	0.01%	5.23%	EGSAFEDDDMLVSTTTSNLLLESEQSTSNLN	R	I	82.00%	4.68	0.0544	0	0	1	0	2	3,684.60	173	205	TRUE	
SNU216_PC2_01	Novel protein	IPI00409607,IPI00642366	166,735.90	99.80%	2	2	2	0.01%	1.95%	LNQSSPDNVTDTK	K	G	95.00%	2.91	0.277	0	1	0	0	2	1,498.64	584	596	TRUE	
SNU216_PC2_01	Novel protein	IPI00409607,IPI00642366	166,735.90	99.80%	2	2	2	0.01%	1.95%	SISNEGLTLNNSHVSK	R	H	95.00%	2.98	0.356	0	1	0	0	2	1,779.83	451	466	TRUE	
SNU216_PC2_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	3.33	0.466	0	2	0	0	2	1,811.70	491	505	TRUE	
SNU216_PC2_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.67	0.275	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216_PC2_01	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSSLTNDVAK	K	Q	95.00%	5.5	0.155	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216_PC2_01	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	3.33	0.419	0	1	0	0	2	1,896.90	850	867	TRUE	
SNU216_PC2_01	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	3	3	0.02%	7.34%	EAANEAGDSSQDEAEDDVK	R	Q	95.00%	3.45	0.469	0	1	0	0	2	2,139.73	153	171	TRUE	
SNU216_PC2_01	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	3	3	0.02%	7.34%	IKEEPVSEEGEEDEEQEAEEEPMDTSPSGLH	R	L	95.00%	5.88	0.448	0	0	1	1	2	3,780.55	497	529	TRUE	
SNU216_PC2_01	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	4	4	4	0.03%	5.86%	KDQDSVGEMKDEGEETLNYPDTTIDLSHLQ	R	S	95.00%	4.49	0.317	0	0	0	1	2	3,868.72	759	791	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	4	4	4	0.03%	5.86%	NPYLLSEEEDDDVDGDVNVEK	R	N	95.00%	5.47	0.476	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216_PC2_01	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	4	4	4	0.03%	5.86%	NPYLLSEEEDDDVDGDVNVEKNETEPPK	R	G	95.00%	6.56	0.382	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216_PC2_01	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	4	4	4	0.03%	5.86%	NPYLLSEEEDDDVDGDVNVEKNETEPPKGK	R	K	90.70%	3.75	0.144	0	0	1	0	2	3,454.51	412	441	TRUE	
SNU216_PC2_01	Similar to RAB3 GTPase-activating protein	IPI00014235	111,287.70	99.80%	1	1	1	0.01%	1.72%	KTSASDVTNIYPGDAGK	K	A	95.00%	4.4	0.499	0	1	0	0	2	1,803.82	535	551	TRUE	
SNU216_PC2_01	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	2	2	2	0.01%	3.62%	RLSEQLAHTPTAFK	R	R	95.00%	2.84	0.328	0	0	1	0	2	1,678.83	494	507	TRUE	
SNU216_PC2_01	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	2	2	2	0.01%	3.62%	TASNPKVENEDEPVR	R	L	95.00%	2.56	0.291	0	1	0	0	2	1,764.78	292	306	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	8	11	0.07%	4.31%	GLLYDSDEEDEERPAR	R	K	95.00%	3.87	0.444	0	2	2	0	2	1,973.81	134	149	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	8	11	0.07%	4.31%	GNDPLTSSPGR	R	S	95.00%	2.18	0.299	0	2	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	8	11	0.07%	4.31%	RGLLYDSDEEDEERPAR	R	K	95.00%	3	0.342	0	1	1	0	2	2,129.91	133	149	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	8	11	0.07%	4.31%	RTDALTSSPGR	R	D	95.00%	2.54	0.261	1	0	1	0	2	1,240.57	34	44	TRUE	
SNU216_PC2_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	5	8	11	0.07%	4.31%	TDALTSSPGR	R	D	93.70%	1.88	0.238	0	1	0	0	2	1,164.43	35	44	TRUE	
SNU216_PC2_01	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	5	5	0.03%	3.65%	EGHETPMDIDSDDSK	K	A	95.00%	3.24	0.488	0	1	1	0	2	1,755.64	522	536	TRUE	
SNU216_PC2_01	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	5	5	0.03%	3.65%	LKEGHETPMDIDSDDSK	K	A	95.00%	3.6	0.481	0	1	1	0	2	1,996.82	520	536	TRUE	
SNU216_PC2_01	Protein deltex 3-like protein	IPI00152503	83,556.20	100.00%	3	5	5	0.03%	3.65%	QQFSPSMTER	K	K	94.40%	2.22	0.181	0	1	0	0	2	1,290.52	199	208	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	11	0.07%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	3.56	0.449	0	2	0	0	2	1,527.64	61	73	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	11	0.07%	5.75%	KEEPSQNDISPK	K	T	95.00%	3.67	0.34	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	11	0.07%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.98	0.263	0	0	1	0	2	1,639.74	60	73	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	11	0.07%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.75	0.371	0	2	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	11	0.07%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	3.91	0.421	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	9	11	0.07%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	4.24	0.249	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216_PC2_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	DVEDMELSDVEDDGSK	R	I	95.00%	3.1	0.388	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216_PC2_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	4.3	0.075	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216_PC2_01	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	3	3	3	0.02%	4.24%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.88	0.56	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	3.87	0.308	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.52	0.535	0	4	1	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	92.80%	4.3	0.0038	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	FKAEAPLPSPK	K	L	95.00%	2.66	0.37	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	GHYEVTGSDDETGK	K	L	95.00%	2.78	0.439	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.21	0.415	0	1	0	1	2	2,602.17	2905	2929	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	GKGGVTGSPEASISGSK	K	G	95.00%	3.7	0.104	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	GPAFNMASPESDFGINLK	K	G	95.00%	3.69	0.351	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	ISAPNVDFNLEGPK	R	V	95.00%	2.58	0.47	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	ISMQDVDLSLGSPK	K	L	95.00%	3.21	0.28	0	2	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	ISMSEVDLNVAAPK	R	V	95.00%	3.19	0.459	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	SKGHYEVTGSDDETGK	K	L	95.00%	3.7	0.393	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	94.40%	5	0.0724	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	SNSFSDER	R	E	95.00%	2.13	0.297	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	80.90%	4.79	0.0606	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.77	0.101	0	1	0	0	2	2,194.92	2816	2836	TRUE	
SNU216_PC2_01	313 kDa protein	IPI00555610	312,537.10	100.00%	17	19	23	0.15%	7.09%	VKTPEMIIQKPK	K	I	82.10%	2.8	0.159	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216_PC2_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	2	2	2	0.01%	2.22%	SASVNKEPVSLPGIMR	R	R	95.00%	2.67	0.278	0	1	0	0	2	1,764.87	1157	1172	TRUE	
SNU216_PC2_01	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	2	2	2	0.01%	2.22%	SHSPSASQSGSQLR	R	N	95.00%	2.99	0.328	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216_PC2_01	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	2	2	2	0.01%	3.40%	EFTGSPPSSATK	R	K	95.00%	2.07	0.312	0	1	0	0	2	1,288.55	550	561	TRUE	
SNU216_PC2_01	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	2	2	2	0.01%	3.40%	NISSSPSVESLPGGR	K	E	95.00%	3.04	0.364	0	1	0	0	2	1,566.72	535	549	TRUE	
SNU216_PC2_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	2	2	2	0.01%	4.98%	SRPTSEGSDIESTEPQK	R	Q	95.00%	3.41	0.152	0	1	0	0	2	1,927.83	254	270	TRUE	
SNU216_PC2_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	2	2	2	0.01%	4.98%	SSSEDAESLAPR	R	S	95.00%	2.98	0.327	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216_PC2_01	Isoform 2 of Plakophilin-2	IPI00005264,IPI00219688	92,741.60	100.00%	1	1	1	0.01%	1.36%	RLEISPDSSPER	R	A	95.00%	1.86	0.298	0	1	0	0	2	1,625.60	147	158	TRUE	
SNU216_PC2_01	KH-type splicing regulatory protein	IPI00479786,IPI00759502	73,805.40	100.00%	1	1	1	0.01%	1.83%	VQISPDSGGLPER	K	S	84.50%	2.01	0.193	0	1	0	0	2	1,434.66	178	190	TRUE	
SNU216_PC2_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.80%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.25	0.397	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216_PC2_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.80%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLRR	K	A	80.30%	2.57	0.178	0	0	1	0	2	2,265.04	239	258	TRUE	
SNU216_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	7	0.04%	3.98%	DSENTPVKGGTVADLDEQDEETVTAGGK	K	E	95.00%	5.38	0.502	0	0	1	0	2	2,942.28	394	421	TRUE	
SNU216_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	7	0.04%	3.98%	KHSPSPPPPTPTESR	K	K	95.00%	4.21	0.56	0	2	3	0	2	1,774.76	326	340	TRUE	
SNU216_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	3	4	7	0.04%	3.98%	RKHSPSPPPPTPTESR	K	K	95.00%	3.85	0.37	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	10.30%	ATSSHFSASEESMDFLDK	K	S	87.40%	2.64	0.123	0	1	0	0	2	2,068.82	473	490	TRUE	
SNU216_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	10.30%	DKASPEPEKDFSEK	K	A	95.00%	3.31	0.324	0	1	1	0	2	1,686.73	684	697	TRUE	
SNU216_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	10.30%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.26	0.409	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	10.30%	GKDETDSPTVHLGLDSDSESELVIDLGEDHS	K	E	95.00%	5.91	0.0773	0	0	1	0	2	3,669.55	711	743	TRUE	
SNU216_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	10.30%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	2.87	0.228	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC2_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	6	7	7	0.04%	10.30%	TPPSTTVGSHSPPETPVLTR	K	S	95.00%	3.19	0.269	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216_PC2_01	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	2	3	5	0.03%	5.75%	ETPRPEGGSPSPAGTPPQPK	R	R	95.00%	3.59	0.442	0	2	1	0	2	2,066.95	476	495	TRUE	
SNU216_PC2_01	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	100.00%	2	3	5	0.03%	5.75%	GAGAAGLPQPPRESPQLHER	R	E	95.00%	3.03	0.3	0	0	2	0	2	2,148.03	456	475	TRUE	
SNU216_PC2_01	Gephyrin	IPI00016006,IPI00184477	83,448.60	100.00%	2	3	3	0.02%	4.48%	VKEVHDELEDLPSPPPPLSPPPTTSPHK	K	Q	95.00%	5.14	0.187	0	0	1	1	2	3,120.53	176	203	TRUE	
SNU216_PC2_01	Gephyrin	IPI00016006,IPI00184477	83,448.60	100.00%	2	3	3	0.02%	4.48%	VKEVHDELEDLPSPPPPLSPPPTTSPHKQTEI	K	G	83.70%	3.97	0.13	0	0	0	1	2	3,881.73	176	208	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	AGMSSNQSISSPVLDAVPR	K	T	95.00%	3.55	0.497	0	1	0	0	2	1,995.92	1394	1412	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	ARSRTPPSAPSQSR	R	M	84.40%	2.51	0.154	0	0	1	0	2	1,657.72	2405	2418	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	DGLPRTPSRR	K	S	91.60%	2.13	0.216	0	0	1	0	2	1,234.61	1429	1438	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.41	0.371	0	0	1	0	2	2,259.04	1316	1334	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	ENSFGSPLEFR	R	N	95.00%	2.06	0.304	0	1	0	0	2	1,362.57	1324	1334	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	HASSSPESPKPAPAPGSHR	R	E	95.00%	2.96	0.32	0	1	2	1	2	1,976.90	433	451	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.72	0.0493	0	0	1	0	2	3,012.35	374	401	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	QPSSPYEDKDKDK	K	K	95.00%	2.93	0.293	0	0	1	0	2	1,616.68	330	342	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	RPSPQPSPR	R	D	88.10%	1.75	0.258	0	1	0	0	2	1,101.52	2700	2708	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	RVPSPTPAPK	K	E	87.00%	2.11	0.236	0	1	0	0	2	1,129.58	2578	2587	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	SGSSQELDVKPSASPQER	R	S	95.00%	2.82	0.287	0	2	0	0	2	1,981.89	1539	1556	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	SSSPVTELASR	R	S	93.50%	2.04	0.251	0	1	0	0	2	1,213.55	1101	1111	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	SSTPPGESYFGVSSLQLK	K	G	85.70%	3.61	0.0126	0	1	0	0	2	1,963.91	1041	1058	TRUE	
SNU216_PC2_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	14	16	18	0.11%	7.45%	THTTALAGRSPSPASGR	K	R	95.00%	3.33	0.406	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC2_01	Probable ATP-dependent RNA helicase DDX20	IPI00005904	92,242.10	99.80%	3	3	3	0.02%	5.95%	ISLEQPPNGSDTPNPEK	R	Y	83.20%	3.15	0.11	0	1	0	0	2	1,902.85	694	710	TRUE	
SNU216_PC2_01	Probable ATP-dependent RNA helicase DDX20	IPI00005904	92,242.10	99.80%	3	3	3	0.02%	5.95%	SYLEGSSDNQLKDSESTPVDDR	K	I	95.00%	3.27	0.336	0	0	1	0	2	2,522.06	672	693	TRUE	
SNU216_PC2_01	Probable ATP-dependent RNA helicase DDX20	IPI00005904	92,242.10	99.80%	3	3	3	0.02%	5.95%	YQESPGIQMK	K	T	81.90%	1.99	0.169	0	1	0	0	2	1,260.53	711	720	TRUE	
SNU216_PC2_01	hypothetical protein LOC57703	IPI00177381	105,470.20	99.80%	1	1	1	0.01%	1.43%	RNSFSENEKHTHR	R	I	95.00%	3.51	0.405	0	0	1	0	2	1,721.75	827	839	TRUE	
SNU216_PC2_01	Isoform C of Protein C9orf10	IPI00396057,IPI00743942	121,818.10	99.80%	1	1	1	0.01%	2.06%	NLTEQNSYSNIPHEGKHTPLYER	K	S	95.00%	3.68	0.227	0	0	0	1	2	2,807.28	410	432	TRUE	
SNU216_PC2_01	Acidic 82 kDa protein mRNA	IPI00290410	90,672.40	99.40%	2	2	2	0.01%	3.09%	ESYTEEIVSEAESHVSGISR	K	I	95.00%	3.48	0.262	0	0	1	0	2	2,288.99	133	152	TRUE	
SNU216_PC2_01	Acidic 82 kDa protein mRNA	IPI00290410	90,672.40	99.40%	2	2	2	0.01%	3.09%	VTPTKESYTEEIVSEAESHVSGISR	K	I	88.10%	5.24	0.0445	0	0	1	0	2	2,815.30	128	152	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.31%	EKPEEIQDPAALTSDAEQPSGFTFSFFDSDTI	K	D	91.60%	6.22	0.0201	0	0	1	0	2	3,614.57	897	928	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.31%	EYDSGDTDEIIAMK	R	K	91.60%	2.13	0.207	0	1	0	0	2	1,746.62	249	262	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.31%	FLETDSEEEQEEVNEK	R	K	95.00%	2.63	0.231	0	1	0	0	2	2,114.77	759	774	TRUE	
SNU216_PC2_01	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	4	4	4	0.03%	6.31%	NSSPGEASLLEK	R	E	95.00%	2.31	0.408	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216_PC2_01	hypothetical protein LOC84081 isoform 1	IPI00030274	66,390.60	98.50%	1	1	1	0.01%	4.48%	VEENPDADSDFDAKSSADDEIEETR	K	V	95.00%	2.64	0.243	0	0	1	0	2	3,024.06	240	264	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	AIISSSDDSSDEDKLK	K	I	95.00%	2.47	0.21	0	1	0	0	2	1,789.77	1034	1049	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	GEEGSDDDETENGPKPK	K	K	95.00%	4.55	0.498	0	2	1	0	2	1,883.72	988	1004	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.09	0.363	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.21	0.519	0	0	1	0	2	2,436.01	935	955	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	KGGEFDEFVNDDTDDDLPISKK	K	K	95.00%	3.3	0.338	0	0	1	0	2	2,564.11	935	956	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	KGSGSEQEGEDEEGGER	R	K	95.00%	4.21	0.563	0	2	0	0	2	1,859.69	961	977	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	KGSGSEQEGEDEEGGERK	R	K	95.00%	3.66	0.507	0	1	0	0	2	2,067.75	961	978	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	RKGSGSEQEGEDEEGGER	R	K	95.00%	3.51	0.468	0	1	1	0	2	2,095.76	960	977	TRUE	
SNU216_PC2_01	136 kDa protein	IPI00005625	135,683.90	100.00%	9	11	13	0.08%	7.70%	RRPSGSEQSDNESVQSGR	K	S	95.00%	3.75	0.329	0	0	1	0	2	2,055.88	1116	1133	TRUE	
SNU216_PC2_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.59	0.427	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216_PC2_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.34	0.437	0	0	1	1	2	2,727.34	846	871	TRUE	
SNU216_PC2_01	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.33	0.385	0	0	1	3	2	3,113.52	846	874	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	5	5	0.03%	2.92%	DSQSASGEERPPEADGK	R	K	95.00%	3.12	0.384	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	5	5	0.03%	2.92%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	2.46	0.29	0	0	1	1	2	2,537.95	339	359	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	5	5	0.03%	2.92%	SDSGGSSSSEPFDR	R	H	95.00%	2.53	0.445	0	1	0	0	2	1,407.51	759	771	TRUE	
SNU216_PC2_01	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	4	5	5	0.03%	2.92%	SEGSEYEEIPKR	R	R	95.00%	1.82	0.37	0	1	0	0	2	1,503.64	1089	1100	TRUE	IPI00643923,IPI00741537
SNU216_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	7	0.04%	6.51%	ESKGSPVFLPR	K	K	95.00%	2.13	0.335	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	7	0.04%	6.51%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	3.93	0.271	0	0	1	0	2	2,891.35	664	689	TRUE	
SNU216_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	7	0.04%	6.51%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.61	0.419	0	0	2	0	2	2,380.14	381	401	TRUE	
SNU216_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	7	0.04%	6.51%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	5.83	0.572	0	0	2	0	2	2,673.28	1068	1093	TRUE	
SNU216_PC2_01	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	7	0.04%	6.51%	LYNSEESRPYTNK	R	V	95.00%	2.72	0.237	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216_PC2_01	Nardilysin	IPI00243221,IPI00747052	139,288.40	100.00%	1	1	1	0.01%	1.15%	RGSLSNAGDPEIVK	R	S	95.00%	2.94	0.189	0	1	0	0	2	1,522.73	92	105	TRUE	
SNU216_PC2_01	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	3.41%	AQSSPASATFPVSVQEPPTKPR	R	F	95.00%	4.35	0.464	0	0	1	0	2	2,362.14	630	651	TRUE	
SNU216_PC2_01	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	3.41%	QEPIESDEEEAEPPR	K	E	95.00%	2.56	0.217	0	1	0	0	2	1,834.74	560	574	TRUE	
SNU216_PC2_01	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.70%	2	3	3	0.02%	4.89%	APVSSTESVIQSNTPTPPPSQPLNETAEEESR	K	I	94.40%	6.58	0.0194	0	0	1	0	2	3,539.55	884	915	TRUE	
SNU216_PC2_01	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.70%	2	3	3	0.02%	4.89%	ASPSPQPSSQPLQIHR	R	Q	95.00%	3.08	0.292	0	1	1	0	2	1,809.86	143	158	TRUE	
SNU216_PC2_01	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.80%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFK	R	S	95.00%	3.41	0.308	0	1	1	0	2	1,641.65	275	288	TRUE	
SNU216_PC2_01	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.80%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFKSPSK	R	E	95.00%	3.42	0.377	0	0	1	0	2	2,040.87	275	292	TRUE	
SNU216_PC2_01	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	2	3	6	0.04%	3.81%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	5.09	0.136	0	2	3	0	2	2,929.08	432	455	TRUE	
SNU216_PC2_01	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	2	3	6	0.04%	3.81%	GLKEGMNPSYDEYADSDEDQHDAYLER	R	M	95.00%	4.71	0.103	0	0	1	0	2	3,227.28	429	455	TRUE	
SNU216_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.03%	5.57%	MSSPEDDSDTKR	K	L	95.00%	2.23	0.369	0	1	0	0	2	1,527.51	382	393	TRUE	
SNU216_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.03%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	95.00%	6.52	0.442	0	0	1	0	2	2,928.28	227	252	TRUE	IPI00005648
SNU216_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.03%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.92	0.471	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216_PC2_01	103 kDa protein	IPI00646058	102,769.00	100.00%	4	4	4	0.03%	5.57%	SVVSFDKVKEPR	R	K	95.00%	2.44	0.292	0	0	1	0	2	1,470.74	601	612	TRUE	
SNU216_PC2_01	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	99.80%	1	1	2	0.01%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.7	0.437	0	0	2	0	2	3,320.37	542	570	TRUE	
SNU216_PC2_01	CAD protein	IPI00301263	242,982.50	99.80%	2	2	2	0.01%	2.43%	IHRASDPGLPAEEPKEK	R	S	95.00%	3.48	0.317	0	0	0	1	2	1,953.94	1855	1871	TRUE	
SNU216_PC2_01	CAD protein	IPI00301263	242,982.50	99.80%	2	2	2	0.01%	2.43%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	4.89	0.497	0	0	0	1	2	4,052.11	1898	1934	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	9	10	0.06%	6.97%	KPSKEMSSDSEYDSDDDR	K	T	87.60%	2.46	0.19	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	9	10	0.06%	6.97%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3.97	0.506	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	9	10	0.06%	6.97%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.38	0.348	0	2	1	0	2	2,080.79	106	122	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	9	10	0.06%	6.97%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.17	0.376	0	1	1	0	2	2,234.82	131	148	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	9	10	0.06%	6.97%	WDGSEEDEDNSK	K	K	95.00%	2.32	0.412	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	9	10	0.06%	6.97%	WDGSEEDEDNSKK	K	I	95.00%	2.57	0.433	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216_PC2_01	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTK	K	R	95.00%	3.97	0.216	0	0	1	0	2	2,971.13	299	323	TRUE	
SNU216_PC2_01	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTKR	K	R	95.00%	3.93	0.378	0	0	1	0	2	3,127.23	299	324	TRUE	
SNU216_PC2_01	RAB GTPase activating protein 1-like isoform A	IPI00396010,IPI00418300,IP	92,422.50	99.80%	2	2	2	0.01%	7.12%	ESDKEEPVTPTSGGGPMSPQDDEAEEESDN	R	D	95.00%	7.03	0.117	0	0	1	0	2	4,303.74	463	503	TRUE	
SNU216_PC2_01	RAB GTPase activating protein 1-like isoform A	IPI00396010,IPI00418300,IP	92,422.50	99.80%	2	2	2	0.01%	7.12%	PSSPGGLPEEDSVLFNK	R	L	95.00%	3.79	0.493	0	1	0	0	2	1,852.84	117	133	TRUE	
SNU216_PC2_01	Hypothetical protein gene +108	IPI00396658,IPI00464981,IP	25,829.10	99.80%	1	2	2	0.01%	2.67%	KSQENLGNPSKNEDNVK	R	S	95.00%	3.53	0.432	0	1	1	0	2	1,980.90	20	36	TRUE	
SNU216_PC2_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	3	3	0.02%	4.64%	SETSWESPK	K	Q	89.80%	1.82	0.221	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216_PC2_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	3	3	0.02%	4.64%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	4.88	0.502	0	1	1	0	2	2,152.93	415	432	TRUE	
SNU216_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	4	4	4	0.03%	3.80%	LPLLPPESPGPLR	R	Q	95.00%	2.19	0.367	0	1	0	0	2	1,465.78	846	858	TRUE	
SNU216_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	4	4	4	0.03%	3.80%	MVEPENAVTITPLRPEDDYSPR	R	E	83.10%	2.79	0.151	0	0	1	0	2	2,609.20	816	837	TRUE	
SNU216_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	4	4	4	0.03%	3.80%	NSLESISSIDR	R	E	95.00%	1.99	0.324	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216_PC2_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	4	4	4	0.03%	3.80%	QSPASPPPLGGGAPVR	R	T	95.00%	2.75	0.424	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216_PC2_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	1	1	1	0.01%	1.15%	LAEDEGDSEPEAVGQSR	R	G	95.00%	4.26	0.503	0	1	0	0	2	1,868.75	1461	1477	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase SRPK2	IPI00333420,IPI00396412	79,030.50	99.80%	1	1	1	0.01%	1.74%	TVSASSTGDLPK	R	A	95.00%	2.39	0.31	0	1	0	0	2	1,242.56	503	514	TRUE	
SNU216_PC2_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	99.40%	2	3	3	0.02%	1.20%	SPLEHSSPEK	R	E	87.70%	2.11	0.165	0	1	0	0	2	1,190.51	1109	1118	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	99.40%	2	3	3	0.02%	1.20%	VQEKPDSPGGSTQIQR	R	Y	95.00%	3.02	0.219	0	1	1	0	2	1,806.84	1284	1299	TRUE	
SNU216_PC2_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	4.11	0.369	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	6	0.04%	9.42%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	5.86	0.47	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	6	0.04%	9.42%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.66	0.492	0	2	0	0	2	2,238.86	44	63	TRUE	
SNU216_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	6	0.04%	9.42%	GLWSTDSAEEDKETK	R	R	95.00%	2.91	0.303	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	6	0.04%	9.42%	GLWSTDSAEEDKETKR	R	N	95.00%	3.63	0.362	0	0	1	0	2	1,931.84	397	412	TRUE	
SNU216_PC2_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	5	5	6	0.04%	9.42%	SKPDLESSLESLVFDLR	K	T	95.00%	3.14	0.393	0	1	0	0	2	2,014.97	182	198	TRUE	
SNU216_PC2_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	2	0.01%	1.71%	KNSLISSLEEEVSILNR	R	Q	95.00%	3.99	0.52	0	1	0	0	2	2,011.01	1223	1239	TRUE	
SNU216_PC2_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	2	0.01%	1.71%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.16	0.452	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC2_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	3	4	0.03%	3.39%	KRPESPPSILTPPVVPTADK	K	V	95.00%	3.35	0.297	0	0	1	0	2	2,209.16	254	273	TRUE	
SNU216_PC2_01	Protein AF-17	IPI00023466,IPI00759835	112,076.80	99.80%	2	3	4	0.03%	3.39%	SASPSTQQEKHPTHHER	R	G	95.00%	3.6	0.359	0	0	1	2	2	2,036.89	220	236	TRUE	
SNU216_PC2_01	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	99.50%	2	3	3	0.02%	8.23%	SAYQEYDSDSDVPEELKR	K	D	95.00%	4.15	0.0626	0	1	1	0	2	2,210.91	283	300	TRUE	
SNU216_PC2_01	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	47,570.10	99.50%	2	3	3	0.02%	8.23%	SPSVSPSKQPVSTSSK	R	T	89.00%	3.54	0.0316	0	1	0	0	2	1,762.77	225	240	TRUE	
SNU216_PC2_01	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	99.80%	2	2	2	0.01%	3.64%	SNMSPHGLPAR	R	S	95.00%	3.18	0.32	0	0	1	0	2	1,246.54	446	456	TRUE	
SNU216_PC2_01	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	99.80%	2	2	2	0.01%	3.64%	VAPVINNGSPTILGK	K	R	95.00%	2.35	0.294	0	1	0	0	2	1,559.82	568	582	TRUE	
SNU216_PC2_01	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	2	2	0.01%	4.03%	ATLDEEDLVDSLSEGDAYPNGLQVNFHSPR	R	S	95.00%	5.16	0.511	0	0	1	0	2	3,368.50	21	50	TRUE	
SNU216_PC2_01	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	2	2	0.01%	4.03%	RATLDEEDLVDSLSEGDAYPNGLQVNFHSP	K	S	95.00%	7.89	0.565	0	0	1	0	2	3,524.60	20	50	TRUE	
SNU216_PC2_01	Ribosome biogenesis protein BOP1	IPI00028955	83,629.30	100.00%	1	1	1	0.01%	2.14%	IGDEYAEDSSDEEDIR	R	N	95.00%	2.78	0.492	0	1	0	0	2	2,002.68	118	133	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	ANSDDERPVASDNDDEK	K	Q	95.00%	2.07	0.266	0	1	0	0	2	2,036.71	210	226	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	AQGSDEDKLQNSDDDEK	R	M	95.00%	3.73	0.499	0	3	0	0	2	2,053.73	168	184	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	EDKSDQSDDEKIQNSDDEER	R	A	95.00%	2.44	0.546	0	1	0	0	2	2,621.88	148	167	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	ELFGDDSEDEGASHHSGSDNHSER	K	S	95.00%	3	0.241	0	0	1	0	2	2,694.00	60	83	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	KLTSDEEGEPSGK	K	R	95.00%	2.56	0.465	0	1	0	0	2	1,536.59	627	639	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	KLTSDEEGEPSGKR	K	K	95.00%	2.56	0.367	0	1	1	0	2	1,692.69	627	640	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	KYVISDEEEEDDD	K	-	95.00%	2.73	0.479	0	1	0	0	2	1,665.61	654	666	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	LTSDEEGEPSGK	K	R	95.00%	2.35	0.347	0	1	0	0	2	1,328.53	628	639	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	MQNSDDERPQASDEEHR	K	H	95.00%	2.76	0.196	0	0	1	0	2	2,203.77	243	259	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	NAIASDSEADSDTEVPK	K	D	95.00%	2.95	0.312	0	2	0	0	2	1,828.75	290	306	TRUE	
SNU216_PC2_01	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	11	12	15	0.10%	20.90%	SDQSDDEKIQNSDDEER	K	A	95.00%	3.2	0.399	0	1	0	0	2	2,089.78	151	167	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	4.83	0.482	0	0	1	0	2	2,434.09	531	554	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	EVLYDSEGLSGEER	R	G	86.70%	2.08	0.246	0	1	0	0	2	1,742.66	729	742	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	4.27	0.163	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	GAEETSWSGEER	K	A	95.00%	2.26	0.279	0	1	0	0	2	1,417.53	958	969	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	GPSPAPASSPK	R	R	95.00%	2.12	0.387	0	1	0	0	2	1,075.48	717	727	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	GPSPAPASSPKR	R	E	95.00%	2.63	0.224	0	2	0	0	2	1,231.58	717	728	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.1	0.375	0	1	0	0	2	2,127.97	496	516	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	REVLYDSEGLSGEER	K	G	95.00%	2.48	0.257	0	1	0	0	2	1,898.76	728	742	TRUE	
SNU216_PC2_01	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	9	10	0.06%	9.22%	SASPPPATSSSSSSR	R	R	95.00%	2.1	0.384	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216_PC2_01	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.80%	2	2	2	0.01%	5.30%	EQSSDLTPSGDVSPVKPLSR	R	S	95.00%	3.95	0.393	0	0	1	0	2	2,179.03	365	384	TRUE	
SNU216_PC2_01	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.80%	2	2	2	0.01%	5.30%	YGGDSDHPSDGETSVQPMMTK	K	I	95.00%	3.59	0.0701	0	1	0	0	2	2,398.86	267	287	TRUE	
SNU216_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.42%	AYTPVVVTLWYR	K	A	95.00%	3.01	0.323	0	1	0	0	2	1,547.77	593	604	TRUE	
SNU216_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.42%	DLLSDLQDISDSER	R	K	95.00%	2.7	0.15	0	1	0	0	2	1,685.73	274	287	TRUE	
SNU216_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.42%	GTSPRPPEGGLGYSQLGDDDLK	R	E	95.00%	4.18	0.279	0	0	1	0	2	2,339.06	750	771	TRUE	
SNU216_PC2_01	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	4	4	4	0.03%	7.42%	RDSLEEGELR	K	D	95.00%	2.85	0.282	0	1	0	0	2	1,283.56	45	54	TRUE	
SNU216_PC2_01	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	3	3	0.02%	2.40%	LKGNKHDDGTQSDSENAGAHR	K	R	95.00%	3.3	0.327	0	0	1	1	2	2,317.00	369	389	TRUE	
SNU216_PC2_01	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	3	3	0.02%	2.40%	TEEDSKSIKSDVPVYLK	K	R	84.20%	2.12	0.214	0	1	0	0	2	2,097.94	351	367	TRUE	
SNU216_PC2_01	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	2	2	3	0.02%	3.56%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	6.02	0.396	0	0	2	0	2	3,284.37	341	369	TRUE	
SNU216_PC2_01	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	2	2	3	0.02%	3.56%	EKLQSFDSPER	R	K	95.00%	2.7	0.25	0	1	0	0	2	1,415.62	1018	1028	TRUE	
SNU216_PC2_01	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.60%	2	2	2	0.01%	3.09%	HRSIHEVDISNLEAALR	R	A	92.30%	2.91	0.151	0	0	1	0	2	2,040.00	885	901	TRUE	
SNU216_PC2_01	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.60%	2	2	2	0.01%	3.09%	TKSPTDDEVTPSAVVR	R	R	95.00%	3.89	0.525	0	1	0	0	2	1,781.83	795	810	TRUE	
SNU216_PC2_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	4	4	0.03%	3.35%	LNQSGTSVGTDEESDVTQEEER	K	D	95.00%	4.58	0.073	0	1	0	0	2	2,490.02	2284	2305	TRUE	
SNU216_PC2_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	4	4	0.03%	3.35%	NHETDGGSAHGDDDDDDGPHFEPVVPLPDI	K	T	95.00%	4.64	0.226	0	0	0	1	2	3,618.57	1153	1185	TRUE	
SNU216_PC2_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	4	4	0.03%	3.35%	NRPDYVSEEEEDDEDFETAVK	K	K	95.00%	3.5	0.498	0	1	0	0	2	2,596.02	2662	2682	TRUE	
SNU216_PC2_01	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	4	4	0.03%	3.35%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	3.65	0.188	0	0	1	0	2	3,670.63	2893	2924	TRUE	
SNU216_PC2_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.02	0.367	0	0	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC2_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.16	0.438	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	7	9	17	0.11%	13.70%	EVEEDSEDEEMSEDEEDDSSGEEVVIPQKK	K	G	95.00%	4.85	0.443	0	0	2	0	2	3,521.37	23	52	TRUE	
SNU216_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	7	9	17	0.11%	13.70%	GFGFVDFNSEEDAK	K	A	95.00%	2.54	0.437	0	1	0	0	2	1,641.65	588	601	TRUE	
SNU216_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	7	9	17	0.11%	13.70%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	7.04	0.73	0	0	5	2	2	4,199.41	119	153	TRUE	
SNU216_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	7	9	17	0.11%	13.70%	KVVVSPTK	K	K	95.00%	2.08	0.235	0	1	0	0	2	937.5119	63	70	TRUE	
SNU216_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	7	9	17	0.11%	13.70%	KVVVSPTKK	K	V	95.00%	2.59	0.327	0	1	0	0	2	1,065.61	63	71	TRUE	
SNU216_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	7	9	17	0.11%	13.70%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	G	95.00%	3.56	0.334	0	0	2	2	2	4,302.63	17	52	TRUE	
SNU216_PC2_01	74 kDa protein	IPI00604517	74,428.20	100.00%	7	9	17	0.11%	13.70%	VVVSPTKK	K	V	95.00%	1.67	0.343	0	1	0	0	2	937.5119	64	71	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.22	0.294	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	DNSPPPAFKPEPPK	R	A	95.00%	3.06	0.533	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	ERPSSREDTPSR	K	L	95.00%	2.53	0.304	0	2	0	0	2	1,496.65	437	448	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	GRSIDQDYER	R	A	95.00%	2.86	0.348	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	GSYGSDAEEEEYR	R	Q	95.00%	2.86	0.569	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.56	0.301	0	1	0	1	2	2,509.02	1155	1175	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.97	0.518	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	RHQYSDYDYHSSSEK	R	L	95.00%	3.33	0.205	0	1	0	1	2	1,981.77	420	434	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	SIDQDYER	R	A	95.00%	1.82	0.232	1	1	0	0	2	1,105.42	244	251	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	5.38	0.421	0	0	3	0	2	3,172.46	1048	1076	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	SRSWEDSPER	R	G	95.00%	2.64	0.276	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	SSEPVQHEESIRKPSPEPR	R	A	95.00%	2.7	0.277	0	0	1	0	2	2,269.06	952	970	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	SWEDSPER	R	G	95.00%	1.63	0.185	1	0	0	0	2	1,085.39	170	177	TRUE	
SNU216_PC2_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	14	19	23	0.15%	13.10%	VQVAALQASPPLDQDDR	K	A	95.00%	2.92	0.204	0	1	0	0	2	1,902.90	122	138	TRUE	
SNU216_PC2_01	Vesicle-fusing ATPase	IPI00006451	82,657.40	99.60%	1	1	1	0.01%	2.28%	KLLMLIEMSLQMDPEYR	K	V	94.50%	4.39	0.0842	0	0	1	0	2	2,206.04	709	725	TRUE	
SNU216_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.04%	24.90%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.85	0.385	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.04%	24.90%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.23	0.611	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.04%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4.85	0.308	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC2_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	6	0.04%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	8.26	0.611	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216_PC2_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	99.80%	2	2	2	0.01%	2.61%	RDSLTGSSDLYKR	R	T	95.00%	4.17	0.414	0	0	1	0	2	1,577.73	708	720	TRUE	
SNU216_PC2_01	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	99.80%	2	2	2	0.01%	2.61%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.47	0.357	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.04%	DGQDAIAQSPEK	K	E	95.00%	2.68	0.195	0	1	0	0	2	1,338.56	281	292	TRUE	
SNU216_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.04%	DGQDAIAQSPEKESK	K	D	95.00%	3.67	0.351	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.04%	DGQDAIAQSPEKESKDYEMNANHK	K	D	95.00%	4.9	0.362	0	0	0	1	2	2,785.18	281	304	TRUE	
SNU216_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.04%	ISSKSPGHMVILDQTK	K	G	95.00%	4.1	0.481	0	1	2	0	2	1,820.90	549	564	TRUE	
SNU216_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.04%	RISSKSPGHMVILDQTK	K	G	95.00%	4.02	0.41	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216_PC2_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.04%	SPGHMVILDQTK	K	G	95.00%	2.62	0.336	0	1	1	0	2	1,405.65	553	564	TRUE	
SNU216_PC2_01	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	2	2	2	0.01%	4.17%	KKPAPLPPSSSPGPPSQDSR	K	Q	95.00%	2.72	0.241	0	0	1	0	2	2,110.03	381	400	TRUE	
SNU216_PC2_01	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	2	2	2	0.01%	4.17%	SPVPSPGSSSPQLQVK	R	S	95.00%	3.6	0.52	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216_PC2_01	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.80%	2	2	2	0.01%	5.70%	GSIDREDGSLQGPIGNQHIYQPVGKPDPAA	R	K	95.00%	4.41	0.414	0	0	0	1	2	3,518.71	842	874	TRUE	
SNU216_PC2_01	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	99.80%	2	2	2	0.01%	5.70%	QATVSWDSGGSDEAPPKPSRPGYPSPR	R	S	95.00%	3.16	0.226	0	0	1	0	2	2,906.31	698	724	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.70%	2	3	3	0.02%	1.52%	SYSSPDITQAIQEEEK	R	R	94.30%	3.61	0.0531	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.70%	2	3	3	0.02%	1.52%	SYSSPDITQAIQEEEKR	R	K	95.00%	4.34	0.265	0	1	1	0	2	2,060.92	716	732	TRUE	
SNU216_PC2_01	Tripartite motif protein 56	IPI00514832	81,487.20	100.00%	2	2	2	0.01%	4.24%	AQTPHEDGGPQPHR	R	G	95.00%	3.06	0.374	0	0	1	0	2	1,606.68	440	453	TRUE	
SNU216_PC2_01	Tripartite motif protein 56	IPI00514832	81,487.20	100.00%	2	2	2	0.01%	4.24%	EPSPALGPNLDGSGLLPR	R	P	95.00%	2.72	0.452	0	0	1	0	2	1,869.91	473	490	TRUE	
SNU216_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	4	5	0.03%	10.00%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	3.56	0.54	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	4	5	0.03%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHK	R	K	95.00%	5.73	0.437	0	0	1	0	2	2,991.38	621	648	TRUE	
SNU216_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	4	5	0.03%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHKKP	R	R	95.00%	3.98	0.182	0	0	0	1	2	3,720.74	621	654	TRUE	
SNU216_PC2_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	4	5	0.03%	10.00%	YVDEENSDGETSNHR	K	L	95.00%	3.59	0.548	0	2	0	0	2	1,831.68	136	150	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	7	7	0.04%	8.59%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	3.36	0.307	0	0	1	1	2	2,976.44	103	129	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	7	7	0.04%	8.59%	LNDPFQPFPGNDSPK	K	E	95.00%	3.45	0.389	0	1	0	0	2	1,752.76	668	682	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	7	7	0.04%	8.59%	SINKLDSPDPFK	K	L	95.00%	2.97	0.41	0	1	0	0	2	1,440.68	656	667	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	7	7	0.04%	8.59%	SINKLDSPDPFKLNDPFQPFPGNDSPK	R	E	95.00%	4.96	0.501	0	0	1	0	2	3,094.46	656	682	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	5	7	7	0.04%	8.59%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	3.55	0.362	0	1	1	0	2	2,483.14	428	450	TRUE	
SNU216_PC2_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	1	1	2	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	5.36	0.124	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	7	8	0.05%	18.40%	AEDGATPSPSNETPK	K	K	95.00%	3.84	0.473	0	2	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	7	8	0.05%	18.40%	AEDGATPSPSNETPKK	K	K	95.00%	3.13	0.345	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	7	8	0.05%	18.40%	AEDGATPSPSNETPKKK	K	K	95.00%	3.14	0.284	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	7	8	0.05%	18.40%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.18	0.28	0	1	0	0	2	1,864.84	11	29	TRUE	
SNU216_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	7	8	0.05%	18.40%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	4.19	0.449	0	0	1	0	2	2,899.33	11	39	TRUE	
SNU216_PC2_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	7	8	0.05%	18.40%	VNGDASPAAAESGAK	K	E	89.10%	1.92	0.235	0	1	0	0	2	1,424.61	40	54	TRUE	
SNU216_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.03%	5.61%	GADNDGSGSESGYTTPK	K	K	95.00%	3.73	0.425	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.03%	5.61%	NDSWGSFDLR	R	A	95.00%	2.23	0.372	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC2_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.03%	5.61%	RTSPQVLGSILK	K	S	95.00%	3.1	0.272	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC2_01	Ribosomal RNA upstream binding transcription fa	IPI00384556	75,941.80	100.00%	1	1	1	0.01%	3.52%	LPESPKRAEEIWQQSVIGDYLAR	K	F	95.00%	3.7	0.284	0	0	1	0	2	2,765.37	323	345	TRUE	
SNU216_PC2_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	2	2	0.01%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.55	0.338	0	0	1	0	2	2,020.82	45	61	TRUE	
SNU216_PC2_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	2	2	0.01%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	4	0.52	0	0	0	1	2	2,176.93	44	61	TRUE	
SNU216_PC2_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	3	3	3	0.02%	14.80%	IVEPEVVGESDSEVEGDAWR	K	M	95.00%	3.75	0.214	0	1	0	0	2	2,361.95	107	126	TRUE	
SNU216_PC2_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	3	3	3	0.02%	14.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	3.18	0.162	0	0	1	0	2	2,850.13	44	65	TRUE	
SNU216_PC2_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	3	3	3	0.02%	14.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.14	0.599	0	1	0	0	2	2,721.11	258	280	TRUE	
SNU216_PC2_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	ALENGDADEPSFSDPEDFVDDVSEEELLGD	R	D	95.00%	4.49	0.379	0	0	1	0	2	3,675.56	142	174	TRUE	
SNU216_PC2_01	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.28	0.369	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216_PC2_01	Hsc70-interacting protein	IPI00032826	41,332.40	99.80%	1	1	1	0.01%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	3.31	0.289	0	0	1	0	2	2,745.07	64	85	TRUE	
SNU216_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	5	6	6	0.04%	6.46%	EYVSNDAAQSDDEEK	K	L	95.00%	2.29	0.37	0	1	0	0	2	1,779.66	396	410	TRUE	
SNU216_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	5	6	6	0.04%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.49	0.294	0	1	1	0	2	2,172.03	344	362	TRUE	
SNU216_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	5	6	6	0.04%	6.46%	TKEYVSNDAAQSDDEEK	R	L	95.00%	3.82	0.516	0	1	0	0	2	2,008.80	394	410	TRUE	
SNU216_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	5	6	6	0.04%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	5.82	0.157	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216_PC2_01	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	5	6	6	0.04%	6.46%	VGNESPVQELK	K	Q	95.00%	2.23	0.255	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216_PC2_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	3	0.02%	6.20%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.44	0.462	0	0	2	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC2_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	3	0.02%	6.20%	QNGSNDSDRYSDNEEGK	R	K	95.00%	3.08	0.2	0	1	0	0	2	1,994.74	173	189	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	AVTPVPTK	R	T	95.00%	1.62	0.38	1	1	0	0	2	892.4541	524	531	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.62	0.457	0	0	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	5.7	0.516	0	0	1	1	2	3,687.61	74	113	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	ETESAPGSPR	K	A	95.00%	1.84	0.396	1	2	0	0	2	1,110.45	514	523	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.03	0.24	0	2	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	HSSNPPLESHVGWVMDSR	R	E	95.00%	4.32	0.489	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.6	0.333	0	0	3	0	2	2,405.19	130	152	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	NTFTAWSDEESDYEIDDR	K	D	95.00%	3.85	0.171	0	2	0	0	2	2,272.86	621	638	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	4.56	0.315	0	1	2	0	2	2,729.09	621	642	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	QHYQKETESAPGSPR	R	A	95.00%	2.88	0.319	0	1	0	0	2	1,874.75	509	523	TRUE	
SNU216_PC2_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	16	24	0.15%	15.10%	SLPTTVPESPNYR	R	N	95.00%	2.57	0.362	0	3	1	0	2	1,540.70	766	778	TRUE	
SNU216_PC2_01	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	3	0.02%	6.13%	GLVAAYSGDSDNEEELVER	R	L	95.00%	3.88	0.482	0	1	0	0	2	2,132.90	615	633	TRUE	
SNU216_PC2_01	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	3	0.02%	6.13%	GLVAAYSGDSDNEEELVERLESEEEK	R	L	95.00%	4.91	0.461	0	0	1	0	2	2,977.28	615	640	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	3	0.02%	6.13%	SEDGYHSDGDGYGEHDYRHDISDER	R	E	95.00%	3.83	0.326	0	0	0	1	2	2,934.09	72	95	TRUE	
SNU216_PC2_01	Pre-B-cell leukemia transcription factor interactin	IPI00332106,IPI00645060	77,684.10	99.80%	1	1	1	0.01%	1.92%	ALQAPHSPSKTDGK	R	E	95.00%	2.74	0.275	0	0	1	0	2	1,516.72	8	21	TRUE	
SNU216_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	5	6	0.04%	21.20%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.63	0.584	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	5	6	0.04%	21.20%	GGQGDPAVPTQQPADPSTPEQQNSPGSS	R	R	95.00%	6.39	0.112	0	0	1	0	2	3,473.52	264	296	TRUE	
SNU216_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	5	6	0.04%	21.20%	KSTGSPTQETQAPFIAK	K	R	95.00%	3.33	0.189	0	1	0	0	2	1,870.89	67	83	TRUE	
SNU216_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	5	6	0.04%	21.20%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	95.00%	7.51	0.0099	0	0	2	0	2	3,066.27	16	41	TRUE	
SNU216_PC2_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	5	6	0.04%	21.20%	STGSPTQETQAPFIAK	K	R	95.00%	3.23	0.405	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216_PC2_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.43%	EKVASDTEEADR	R	T	95.00%	2.72	0.327	0	1	0	0	2	1,429.58	652	663	TRUE	
SNU216_PC2_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.43%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	95.00%	4.24	0.108	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216_PC2_01	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.43%	VASDTEEADR	K	T	95.00%	2.27	0.456	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216_PC2_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.50%	1	1	1	0.01%	1.55%	HQSFGAAVLSR	R	E	89.60%	2.66	0.163	0	0	1	0	2	1,252.58	105	115	TRUE	
SNU216_PC2_01	Isoform 1 of Protein tyrosine kinase 2 beta	IPI00029702,IPI00216435	111,186.70	99.00%	2	3	3	0.02%	1.49%	NSLPQIPMLNLEAR	R	R	80.40%	2.05	0.199	0	1	0	0	2	1,675.82	374	387	TRUE	
SNU216_PC2_01	Isoform 1 of Protein tyrosine kinase 2 beta	IPI00029702,IPI00216435	111,186.70	99.00%	2	3	3	0.02%	1.49%	RNSLPQIPMLNLEAR	K	R	95.00%	2.53	0.347	0	1	1	0	2	1,831.93	373	387	TRUE	
SNU216_PC2_01	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	2	2	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	6.81	0.502	0	1	1	0	2	3,106.31	797	824	TRUE	
SNU216_PC2_01	HDAC7A protein	IPI00386808,IPI00418482,IP	106,741.10	99.80%	2	2	2	0.01%	4.51%	AQSSPAAPASLSAPEPASQAR	R	V	95.00%	3.46	0.171	0	1	0	0	2	2,073.96	523	543	TRUE	
SNU216_PC2_01	HDAC7A protein	IPI00386808,IPI00418482,IP	106,741.10	99.80%	2	2	2	0.01%	4.51%	TRSEPLPPSATAPPPPGPMQPR	R	L	95.00%	3.35	0.201	0	0	1	0	2	2,361.14	395	416	TRUE	
SNU216_PC2_01	Centaurin-beta 2	IPI00014264	88,030.10	99.80%	1	1	1	0.01%	2.06%	KSSPSTGSLDSGNESK	K	E	95.00%	4.84	0.06	0	1	0	0	2	1,660.71	377	392	TRUE	
SNU216_PC2_01	RCC1 protein	IPI00001661,IPI00747309	48,144.30	99.80%	1	1	1	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.99	0.414	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216_PC2_01	Isoform 1 of Connector enhancer of kinase suppr	IPI00299824,IPI00451417	78,790.30	99.80%	2	2	3	0.02%	4.72%	KIPIPETPPQTPPQVLDSPHQR	K	S	95.00%	4	0.296	0	0	1	0	2	2,715.23	276	297	TRUE	
SNU216_PC2_01	Isoform 1 of Connector enhancer of kinase suppr	IPI00299824,IPI00451417	78,790.30	99.80%	2	2	3	0.02%	4.72%	SPSLSLAPLSPR	R	A	95.00%	2.68	0.379	0	2	0	0	2	1,304.66	298	309	TRUE	
SNU216_PC2_01	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	3	4	4	0.03%	7.24%	RRSSTVAPAQPDGAESEWTDVETR	K	C	95.00%	4.36	0.419	0	0	1	0	2	2,805.19	805	828	TRUE	
SNU216_PC2_01	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	3	4	4	0.03%	7.24%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	4.6	0.548	0	1	1	0	2	2,339.18	682	702	TRUE	
SNU216_PC2_01	Kinesin-like protein KIF23	IPI00293884	98,106.10	100.00%	3	4	4	0.03%	7.24%	YMLTHQELASDGEIETK	K	L	95.00%	3.55	0.421	0	1	0	0	2	2,044.89	754	770	TRUE	
SNU216_PC2_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.05%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	4.66	0.498	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216_PC2_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.05%	LSSSDSIGPDVTDILSDIAEEASK	R	L	95.00%	4.74	0.0327	0	1	0	0	2	2,529.15	769	792	TRUE	
SNU216_PC2_01	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.05%	NSSQSGGKPGSSPITK	K	H	95.00%	2.87	0.361	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.72%	DSALAEAPEGLSPAPPAR	R	S	95.00%	3.37	0.453	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.72%	HAPEHHPGHGDRLSPGER	R	R	95.00%	2.85	0.307	0	0	0	1	2	2,065.91	994	1011	TRUE	
SNU216_PC2_01	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	99.80%	2	2	2	0.01%	3.06%	LQAKESPQR	K	K	95.00%	2.01	0.324	0	1	0	0	2	1,136.55	72	80	TRUE	
SNU216_PC2_01	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	99.80%	2	2	2	0.01%	3.06%	RKSGGNEVSIEER	K	L	95.00%	2.72	0.217	0	0	1	0	2	1,540.71	429	441	TRUE	
SNU216_PC2_01	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.15	0.0672	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216_PC2_01	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	3.36	0.369	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	2	3	4	0.03%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	6.54	0.545	0	0	2	1	2	3,734.84	125	160	TRUE	
SNU216_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	2	3	4	0.03%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.51	0.295	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	DNIQPTTE	K	-	95.00%	1.84	0.348	1	0	0	0	2	997.3876	948	955	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	ERSPALKSPLQSVVVR	R	R	95.00%	3.78	0.412	0	1	2	0	2	1,845.99	246	261	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	FSGEEGEIEDDESGTENREEKDNIQPTTE	K	-	95.00%	4.36	0.346	0	0	1	0	2	3,364.35	927	955	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	HGLAHDEMKSPR	K	E	95.00%	2.8	0.376	0	1	0	0	2	1,457.64	689	700	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	HGLAHDEMKSPREPGYK	K	A	95.00%	3.19	0.226	0	0	0	1	2	2,031.91	689	705	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	IDISPSTFR	R	K	95.00%	2.18	0.296	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	KSPVGKSPPSTGSTYGSSQK	K	E	95.00%	2.66	0.236	0	0	1	0	2	2,059.97	314	333	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	MDSFDEDLAR	R	P	95.00%	2.42	0.173	0	1	0	0	2	1,278.47	573	582	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	SPALKSPLQSVVVR	R	R	95.00%	3.08	0.496	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.82	0.137	0	1	0	0	2	1,931.87	315	333	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	SYSPAHNR	R	E	88.90%	1.42	0.308	0	1	0	0	2	1,091.37	53	60	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	TDSEKPFRGSQSPK	K	R	93.70%	2.29	0.196	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	5.35	0.535	0	0	3	0	2	2,717.06	922	944	TRUE	
SNU216_PC2_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	14	16	19	0.12%	13.40%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.93	0.452	0	0	1	1	2	3,103.24	922	947	TRUE	
SNU216_PC2_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	3	4	4	0.03%	8.86%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.99	0.521	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC2_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	3	4	4	0.03%	8.86%	FTPVASKFSPGAPGGSGSQPNQK	K	L	89.00%	2.93	0.155	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216_PC2_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	3	4	4	0.03%	8.86%	SPGAPGPLTLK	R	E	95.00%	2.36	0.445	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	6.90%	AGGLDWPEATEVSPSR	R	T	95.00%	3.34	0.458	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	6.90%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.18	0.377	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	6.90%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	4.4	0.385	0	1	0	0	2	2,142.05	308	326	TRUE	
SNU216_PC2_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	6.90%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	3.23	0.283	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216_PC2_01	Lupus La protein	IPI00009032	46,839.00	99.90%	2	3	3	0.02%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.61	0.408	0	0	1	1	2	2,405.96	364	384	TRUE	
SNU216_PC2_01	Lupus La protein	IPI00009032	46,839.00	99.90%	2	3	3	0.02%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.36	0.487	0	0	0	1	2	2,635.11	362	384	TRUE	
SNU216_PC2_01	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	4	4	0.03%	6.35%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	4.42	0.486	0	1	1	0	2	3,169.31	651	677	TRUE	
SNU216_PC2_01	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	4	4	0.03%	6.35%	DGTSPEEEIEIER	K	Q	95.00%	2.37	0.406	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216_PC2_01	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	4	4	0.03%	6.35%	TLDSGTSEIVKSPR	R	I	95.00%	3.33	0.311	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216_PC2_01	FCH domain only 2	IPI00472794	89,293.90	99.70%	2	2	2	0.01%	7.00%	GPSPVSLGNQDTLPVAVALTESVNAYFK	R	G	95.00%	5.96	0.565	0	0	1	0	2	2,954.45	535	562	TRUE	
SNU216_PC2_01	FCH domain only 2	IPI00472794	89,293.90	99.70%	2	2	2	0.01%	7.00%	LSGINEIPRPFSPPVTSNTSPPPAAPLAR	K	A	93.70%	4.15	0.106	0	0	1	0	2	3,063.57	481	509	TRUE	
SNU216_PC2_01	Isoform 1 of Protein C10orf118	IPI00470582,IPI00639861	103,689.80	99.60%	1	1	1	0.01%	2.78%	SSAEDRSPENTGSSVAVDNFPQVDK	R	A	91.40%	3.47	0.176	0	0	1	0	2	2,716.17	734	758	TRUE	
SNU216_PC2_01	nadrin isoform 1	IPI00064767	95,437.00	100.00%	1	3	3	0.02%	2.95%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	3.28	0.467	0	1	1	1	2	2,687.26	674	699	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	3	0.02%	4.86%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	5.22	0.614	0	1	1	0	2	3,107.21	566	591	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	3	0.02%	4.86%	YSPPAISPLVSEK	K	Q	94.80%	2.08	0.231	0	0	1	0	2	1,467.71	369	381	TRUE	
SNU216_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.03%	1.99%	DEDEGIPSENEEEKK	R	M	95.00%	2.84	0.323	0	1	0	0	2	1,827.72	2342	2356	TRUE	
SNU216_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.03%	1.99%	DQKYIFASLDQK	K	S	95.00%	2.66	0.199	0	1	0	0	2	1,535.71	2270	2281	TRUE	
SNU216_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.03%	1.99%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.77	0.168	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216_PC2_01	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	4	4	4	0.03%	1.99%	SGSLDSELSVSPK	K	R	95.00%	2.74	0.188	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216_PC2_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.30%	2	3	3	0.02%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	86.00%	2.37	0.197	0	1	0	0	2	2,449.02	958	978	TRUE	
SNU216_PC2_01	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.30%	2	3	3	0.02%	2.06%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	4.41	0.433	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216_PC2_01	CDNA FLJ13144 fis, clone NT2RP3003278	IPI00335437	80,928.10	99.80%	2	2	2	0.01%	4.96%	EALGQNEESPK	K	Q	95.00%	3.1	0.289	0	1	0	0	2	1,281.54	390	400	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	CDNA FLJ13144 fis, clone NT2RP3003278	IPI00335437	80,928.10	99.80%	2	2	2	0.01%	4.96%	VLSLLSAPLGSGGFTLLHAAAAAGR	R	G	95.00%	3.24	0.384	0	0	1	0	2	2,430.29	523	547	TRUE	
SNU216_PC2_01	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.80%	2	2	2	0.01%	2.42%	LGPQNFIDETSDIENLLK	K	E	95.00%	3.9	0.347	0	1	0	0	2	2,126.01	629	646	TRUE	
SNU216_PC2_01	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.80%	2	2	2	0.01%	2.42%	LGPQNFIDETSDIENLLKEEEDYKEENNDSK	K	E	95.00%	4.47	0.183	0	0	1	0	2	3,735.64	629	659	TRUE	
SNU216_PC2_01	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	DVPSPGGLSAPSSPR	K	N	95.00%	3.61	0.459	0	1	0	0	2	1,503.68	429	443	TRUE	
SNU216_PC2_01	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	RKDVPSPGGLSAPSSPR	R	N	95.00%	5.37	0.541	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216_PC2_01	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	3	3	0.02%	3.78%	LIHTLDDRTQLWASEPGTPPLPTSLPSQNPIL	K	N	79.60%	5.28	0.0561	0	0	0	1	2	3,715.91	527	559	TRUE	
SNU216_PC2_01	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	3	3	0.02%	3.78%	TQLWASEPGTPPLPTSLPSQNPILK	R	N	95.00%	4.95	0.176	0	1	1	0	2	2,752.40	535	559	TRUE	
SNU216_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	12	19	0.12%	12.40%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	5.9	0.539	0	0	1	2	2	3,065.37	341	365	TRUE	
SNU216_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	12	19	0.12%	12.40%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.5	0.48	0	1	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	12	19	0.12%	12.40%	QESDPEDDDVK	R	K	95.00%	3.19	0.498	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	12	19	0.12%	12.40%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	5.06	0.503	0	1	4	1	2	2,653.22	98	121	TRUE	
SNU216_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	12	19	0.12%	12.40%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.62	0.475	0	2	1	0	2	2,427.05	378	397	TRUE	
SNU216_PC2_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	12	19	0.12%	12.40%	SLSPGKENVSALDMEK	K	E	95.00%	3.65	0.477	0	3	1	0	2	1,784.81	441	456	TRUE	
SNU216_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	6	0.04%	8.97%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	3.8	0.067	0	1	0	0	2	2,392.99	538	560	TRUE	
SNU216_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	6	0.04%	8.97%	GPTPPAMGPR	R	D	95.00%	1.67	0.366	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	6	0.04%	8.97%	QLPLEPESPSGQVGPR	K	P	95.00%	3.22	0.43	0	1	0	0	2	1,770.84	63	78	TRUE	
SNU216_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	6	0.04%	8.97%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.62	0.47	0	1	1	0	2	1,989.93	111	129	TRUE	
SNU216_PC2_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	6	6	0.04%	8.97%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.99	0.495	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC2_01	KIAA0802 protein	IPI00411635	179,577.30	99.40%	2	2	2	0.01%	2.49%	DHAPSIPTSPFGDSLESSTELRR	R	H	87.90%	2.58	0.177	0	0	1	0	2	2,579.18	249	271	TRUE	
SNU216_PC2_01	KIAA0802 protein	IPI00411635	179,577.30	99.40%	2	2	2	0.01%	2.49%	REGPVGGESDSEEMFEK	K	T	95.00%	3.12	0.204	0	1	0	0	2	1,962.78	403	419	TRUE	
SNU216_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	11	0.07%	3.72%	DSGNWDTSGSELSEGELEK	K	R	95.00%	3.77	0.452	0	2	0	0	2	2,119.83	908	926	TRUE	
SNU216_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	11	0.07%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	95.00%	3.39	0.231	0	2	0	0	2	2,275.94	908	927	TRUE	
SNU216_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	11	0.07%	3.72%	HKSDSPESDAER	R	E	95.00%	1.89	0.457	0	1	0	0	2	1,597.50	863	874	TRUE	
SNU216_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	11	0.07%	3.72%	HKSDSPESDAEREK	R	D	95.00%	2.86	0.265	0	1	2	1	2	1,854.63	863	876	TRUE	
SNU216_PC2_01	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	5	7	11	0.07%	3.72%	SDSPESDAER	K	E	95.00%	2.3	0.375	0	2	0	0	2	1,252.38	865	874	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	HASPDKWNDKPK	K	N	84.60%	2.23	0.226	0	0	1	0	2	1,502.68	85	96	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	KPGPPLSPEIR	R	S	95.00%	2.07	0.352	0	0	1	0	2	1,270.66	421	431	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	KPGPSGPSESPK	R	A	95.00%	2.29	0.216	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	KPSGSPDLWK	R	L	95.00%	2.77	0.257	0	1	0	0	2	1,194.56	441	450	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.8	0.288	0	1	1	0	2	1,890.91	441	456	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.61	0.468	0	0	2	0	2	2,606.17	280	301	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	KTSPASLDFPESQK	R	S	95.00%	4.01	0.45	0	1	1	0	2	1,614.74	457	470	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.71	0.58	0	1	2	0	2	2,314.11	199	219	TRUE	
SNU216_PC2_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	9	12	14	0.09%	14.50%	TAPTLSPEHWK	K	A	95.00%	2.88	0.266	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216_PC2_01	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	100.00%	3	3	3	0.02%	7.14%	AVSPPHLDGPPSPRSPVIGSEVFLPNSNHVA	K	V	95.00%	5.29	0.359	0	0	0	1	2	4,300.91	516	555	TRUE	
SNU216_PC2_01	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	100.00%	3	3	3	0.02%	7.14%	QPSPSPSPTER	R	A	95.00%	2.02	0.281	0	1	0	0	2	1,342.51	34	44	TRUE	
SNU216_PC2_01	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	70,022.50	100.00%	3	3	3	0.02%	7.14%	SSPEQPRPSTSK	R	A	80.30%	2.22	0.169	0	1	0	0	2	1,380.62	504	515	TRUE	
SNU216_PC2_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	2	4	6	0.04%	2.91%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.71	0.454	0	1	3	0	2	2,422.92	1355	1377	TRUE	
SNU216_PC2_01	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	2	4	6	0.04%	2.91%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	3.95	0.338	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216_PC2_01	DEAH (Asp-Glu-Ala-His) box polypeptide 34 isofo	IPI00385022,IPI00413483	99,019.10	99.20%	1	1	1	0.01%	1.22%	LQEEQDGGSSDEDR	R	A	83.20%	1.93	0.208	0	1	0	0	2	1,724.57	741	754	TRUE	
SNU216_PC2_01	Methionyl-tRNA synthetase	IPI00008240	101,117.50	100.00%	1	1	1	0.01%	3.11%	TSPKPAVVETVTTAKPQQIQALMDEVTK	K	Q	95.00%	4.52	0.487	0	0	0	1	2	3,090.58	824	851	TRUE	
SNU216_PC2_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	3.25%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.3	0.264	0	0	1	0	2	2,366.08	1320	1340	TRUE	
SNU216_PC2_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	3.25%	SVVSDLEADDVK	K	G	93.60%	2	0.246	0	1	0	0	2	1,356.59	1455	1466	TRUE	
SNU216_PC2_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	3.25%	VPDEEENEESDNEK	K	E	95.00%	2.31	0.293	0	1	0	0	2	1,742.63	1178	1191	TRUE	
SNU216_PC2_01	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	3.25%	VPDEEENEESDNEKETEK	K	S	95.00%	3.97	0.445	0	1	0	0	2	2,229.86	1178	1195	TRUE	
SNU216_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.03%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	95.00%	8.08	0.0062	0	0	1	0	2	3,614.83	125	161	TRUE	
SNU216_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.03%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.81	0.575	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.03%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.75	0.399	0	1	0	0	2	1,860.86	107	124	TRUE	
SNU216_PC2_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.03%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.38	0.259	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC2_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	3	3	3	0.02%	2.75%	KAESSSDEEEESEKQK	K	Q	95.00%	1.59	0.474	0	1	0	0	2	2,079.71	876	891	TRUE	
SNU216_PC2_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	3	3	3	0.02%	2.75%	TAFYNEDDSEEEQR	R	Q	95.00%	2.39	0.302	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216_PC2_01	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	3	3	3	0.02%	2.75%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	2.95	0.339	0	1	0	0	2	2,309.91	1279	1298	TRUE	
SNU216_PC2_01	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	99.90%	1	1	1	0.01%	1.44%	LLEDSEESSEETVSR	R	A	95.00%	3.13	0.31	0	1	0	0	2	1,789.74	103	117	TRUE	
SNU216_PC2_01	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	1	1	1	0.01%	3.95%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	3.67	0.387	0	0	1	0	2	2,450.06	90	113	TRUE	
SNU216_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.40%	ETSVSKEDTDHEEK	K	A	95.00%	2.93	0.425	0	1	0	0	2	1,713.69	114	127	TRUE	
SNU216_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.40%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.08	0.283	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.40%	QSNASSDVEVEEK	K	E	95.00%	3.38	0.402	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.40%	QSNASSDVEVEEKETSVSK	K	E	95.00%	3.23	0.517	0	1	0	0	2	2,132.92	101	119	TRUE	
SNU216_PC2_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	6	6	0.04%	10.40%	TGVTSTSDSEEEGDDQEGEK	K	K	95.00%	4.14	0.0827	0	1	0	0	2	2,259.77	267	286	TRUE	
SNU216_PC2_01	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	136,891.90	100.00%	2	2	2	0.01%	2.56%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.51	0.588	0	1	0	0	2	2,376.03	486	505	TRUE	
SNU216_PC2_01	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	136,891.90	100.00%	2	2	2	0.01%	2.56%	SGAASMPSSPK	R	Q	95.00%	2.16	0.269	0	1	0	0	2	1,099.45	196	206	TRUE	
SNU216_PC2_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	3	9	0.06%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	4.37	0.339	0	1	4	0	2	2,926.25	191	216	TRUE	
SNU216_PC2_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	3	9	0.06%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.99	0.167	0	0	4	0	2	3,082.36	191	217	TRUE	
SNU216_PC2_01	Fragile X mental retardation syndrome-related pro	IPI00016250	77,072.40	100.00%	2	3	3	0.02%	6.73%	TDGSISGDRQPVTVADYISR	R	A	95.00%	3.02	0.231	0	1	1	0	2	2,296.98	598	617	TRUE	
SNU216_PC2_01	Fragile X mental retardation syndrome-related pro	IPI00016250	77,072.40	100.00%	2	3	3	0.02%	6.73%	TVMDGGLESDGPNMTENGLEDESRPQR	R	R	95.00%	3.72	0.236	0	0	1	0	2	3,014.25	558	584	TRUE	
SNU216_PC2_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	3	4	4	0.03%	8.80%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	5.45	0.356	0	0	1	0	2	2,877.32	600	626	TRUE	
SNU216_PC2_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	3	4	4	0.03%	8.80%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	6.76	0.029	0	0	1	0	2	3,372.33	627	658	TRUE	
SNU216_PC2_01	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	3	4	4	0.03%	8.80%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	6.1	0.51	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216_PC2_01	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.80%	2	2	2	0.01%	1.87%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	4.96	0.562	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216_PC2_01	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.80%	2	2	2	0.01%	1.87%	RPMSSPEMK	K	S	95.00%	2.45	0.259	0	1	0	0	2	1,142.47	1947	1955	TRUE	
SNU216_PC2_01	Isoform 2 of Formin-like 1 protein	IPI00025202,IPI00163516	121,832.20	99.70%	2	2	2	0.01%	3.17%	EAAAQEAGADTPGKGEPPAPKSPPK	K	A	95.00%	4.68	0.299	0	0	1	0	2	2,481.17	1010	1034	TRUE	
SNU216_PC2_01	Isoform 2 of Formin-like 1 protein	IPI00025202,IPI00163516	121,832.20	99.70%	2	2	2	0.01%	3.17%	RDSELGPGVK	R	A	94.30%	2.51	0.161	0	1	0	0	2	1,137.53	622	631	TRUE	
SNU216_PC2_01	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	99.00%	1	1	1	0.01%	0.33%	SLSPDEER	K	L	80.10%	1.74	0.214	0	1	0	0	2	1,012.40	2391	2398	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform 1 of Cullin-4B	IPI00179057,IPI00480142,IP	102,760.40	100.00%	1	1	1	0.01%	1.79%	SATDGNTSTTPPTSAK	R	K	92.90%	3.67	0.0386	0	1	0	0	2	1,615.68	27	42	TRUE	
SNU216_PC2_01	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	2	2	2	0.01%	2.12%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.89	0.132	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216_PC2_01	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	2	2	2	0.01%	2.12%	SAFTPATATGSSPSPVLGQGEKVEGLQAQA	R	A	95.00%	7.54	0.0809	0	0	1	0	2	3,681.80	891	925	TRUE	
SNU216_PC2_01	heterogeneous nuclear ribonucleoprotein U isofor	IPI00644079	90,585.20	100.00%	1	1	1	0.01%	3.88%	LQAALDDEEAGGRPAMEPGNGSLDLGGDS	R	S	95.00%	4.38	0.243	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216_PC2_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	4	8	0.05%	5.02%	EEDFRRPSEEDFR	R	R	95.00%	2.21	0.235	0	0	1	0	2	1,791.73	584	596	TRUE	
SNU216_PC2_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	4	8	0.05%	5.02%	FPPEDFRHSPEDFR	R	R	95.00%	2.96	0.251	0	0	4	0	2	1,855.78	567	580	TRUE	
SNU216_PC2_01	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	4	8	0.05%	5.02%	SRSPLGFYVHLK	R	N	95.00%	3.09	0.255	0	1	2	0	2	1,483.75	278	289	TRUE	
SNU216_PC2_01	U3 small nucleolar ribonucleoprotein protein MPF	IPI00012149	78,866.80	100.00%	1	1	1	0.01%	4.41%	KDDNDEEEEDIDFFEDIDSDEDEGGLFGSK	R	K	95.00%	6.13	0.614	0	0	1	0	2	3,533.34	224	253	TRUE	
SNU216_PC2_01	PREDICTED: similar to ELG protein	IPI00740502	30,748.00	99.80%	2	2	2	0.01%	15.30%	AEAPAGPALGLPSPEAESGVDR	K	G	95.00%	4.84	0.493	0	1	0	0	2	2,171.00	13	34	TRUE	
SNU216_PC2_01	PREDICTED: similar to ELG protein	IPI00740502	30,748.00	99.80%	2	2	2	0.01%	15.30%	AEAPAGPALGLPSPEAESGVDRGEPEPMEV	K	S	95.00%	4.46	0.192	0	0	0	1	2	4,446.12	13	54	TRUE	
SNU216_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	7	7	0.04%	11.90%	AGKEPAKPSPSR	K	D	95.00%	2.79	0.34	0	1	1	0	2	1,304.64	636	647	TRUE	
SNU216_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	7	7	0.04%	11.90%	RTEGYAAFQEDSSGDEAESPSK	K	M	95.00%	3.24	0.192	0	0	1	0	2	2,520.94	80	101	TRUE	
SNU216_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	7	7	0.04%	11.90%	TEGYAAFQEDSSGDEAESPSK	R	M	95.00%	3.66	0.312	0	1	0	0	2	2,364.84	81	101	TRUE	
SNU216_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	7	7	0.04%	11.90%	TGEPSPPHDILHEPPDVVSDDEKDHGK	R	K	95.00%	4.39	0.326	0	0	0	1	2	3,107.30	43	69	TRUE	
SNU216_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	7	7	0.04%	11.90%	TPSSEEISPTK	R	F	95.00%	2.32	0.371	0	1	0	0	2	1,255.55	26	36	TRUE	
SNU216_PC2_01	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	7	7	0.04%	11.90%	TPSSEEISPTKFPGLYR	R	T	95.00%	3.02	0.347	0	1	0	0	2	1,988.94	26	42	TRUE	
SNU216_PC2_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	4.12%	KTESPIKLSPATPSR	K	K	95.00%	3.04	0.283	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC2_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	4.12%	SPPLPAVIR	R	N	93.50%	1.53	0.308	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216_PC2_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	4.12%	SVAVSDEEEVEEEAER	R	R	95.00%	3.84	0.347	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC2_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.90%	1	2	2	0.01%	3.21%	DKSPVREPIDNLTPEER	K	D	95.00%	4.21	0.453	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC2_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	6	6	0.04%	9.20%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.09	0.196	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216_PC2_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	6	6	0.04%	9.20%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	4.81	0.301	0	0	1	1	2	2,871.21	88	112	TRUE	
SNU216_PC2_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	6	6	0.04%	9.20%	TTQSMQDFPVVDSEEEAEEEFQK	R	E	95.00%	5.57	0.521	0	1	1	0	2	2,783.13	198	220	TRUE	
SNU216_PC2_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	6	6	0.04%	9.20%	TTQSMQDFPVVDSEEEAEEEFQKELSQWR	R	K	95.00%	3.41	0.19	0	0	1	0	2	3,582.53	198	226	TRUE	
SNU216_PC2_01	Isoform A of Protocadherin-7 precursor	IPI00001893	116,105.90	99.80%	1	1	1	0.01%	1.78%	SSSPLPTVQLHPQSPTAGK	K	K	95.00%	3.43	0.372	0	1	0	0	2	2,011.99	998	1016	TRUE	
SNU216_PC2_01	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	2	2	2	0.01%	4.11%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.41	0.369	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216_PC2_01	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	2	2	2	0.01%	4.11%	TNTPVKEDWNVR	R	I	95.00%	2.84	0.454	0	1	0	0	2	1,538.70	515	526	TRUE	
SNU216_PC2_01	Transcription repressor	IPI00382733	82,672.30	100.00%	2	3	4	0.03%	3.99%	IDGATQSSPAEPK	K	S	95.00%	2.71	0.25	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216_PC2_01	Transcription repressor	IPI00382733	82,672.30	100.00%	2	3	4	0.03%	3.99%	RGSGDTSISIDTEASIR	R	E	95.00%	3.72	0.259	0	2	1	0	2	1,844.84	86	102	TRUE	
SNU216_PC2_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	99.80%	1	1	1	0.01%	2.05%	LDQPVSAPPSPR	K	D	95.00%	2.58	0.328	0	1	0	0	2	1,423.60	235	246	TRUE	
SNU216_PC2_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	6	0.04%	7.12%	HKSDVEIPATVTAFSFEDDTVPLSPLK	R	Y	95.00%	5.02	0.396	0	0	1	0	2	3,023.47	400	426	TRUE	
SNU216_PC2_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	6	0.04%	7.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	2.64	0.273	0	2	1	0	2	1,850.88	636	652	TRUE	
SNU216_PC2_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	6	0.04%	7.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.17	0.321	0	0	2	0	2	2,292.10	632	652	TRUE	
SNU216_PC2_01	Isoform 1 of Bromodomain-containing protein 4	IPI00440727	152,216.90	99.80%	1	1	1	0.01%	2.35%	EAPSPLMIHSPQMSQFQSLTHQSPPQQNV	R	K	95.00%	3.73	0.233	0	0	0	1	2	3,677.72	1061	1092	TRUE	
SNU216_PC2_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	2	2	0.01%	5.48%	AGGASPAASSTAQPPTQHR	R	L	95.00%	3.71	0.486	0	1	0	0	2	1,871.84	449	467	TRUE	
SNU216_PC2_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	99.80%	2	2	2	0.01%	5.48%	KASPEPEGEAAGK	R	M	95.00%	2.56	0.165	0	1	0	0	2	1,350.59	382	394	TRUE	
SNU216_PC2_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	5	0.03%	5.51%	HAIMRSPQMVSAIVR	R	T	95.00%	3.1	0.257	0	0	1	0	2	1,775.88	186	200	TRUE	
SNU216_PC2_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	5	0.03%	5.51%	RLSVELTSSLFR	K	T	95.00%	2.48	0.251	0	1	0	0	2	1,487.76	673	684	TRUE	
SNU216_PC2_01	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	3	4	5	0.03%	5.51%	RTSMGGTQQQFVEGVR	R	M	95.00%	4.48	0.484	0	2	1	0	2	1,860.84	550	565	TRUE	
SNU216_PC2_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	4	0.03%	4.44%	ESVSPEDSEK	K	K	89.00%	1.84	0.241	0	1	0	0	2	1,186.45	365	374	TRUE	
SNU216_PC2_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	4	0.03%	4.44%	IIYDSDSESEETLQVK	R	N	95.00%	4.22	0.0656	0	1	0	0	2	1,935.85	65	80	TRUE	
SNU216_PC2_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	4	0.03%	4.44%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	5.33	0.489	0	0	2	0	2	2,798.45	152	176	TRUE	
SNU216_PC2_01	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.70%	2	2	2	0.01%	1.54%	AESLDDQMLSR	R	E	95.00%	2.12	0.314	0	1	0	0	2	1,344.55	719	729	TRUE	
SNU216_PC2_01	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.70%	2	2	2	0.01%	1.54%	AKSLSAMDVEK	R	C	93.30%	2.01	0.255	0	1	0	0	2	1,258.58	603	613	TRUE	
SNU216_PC2_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.80%	2	2	2	0.01%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	3.87	0.359	0	0	1	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC2_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.80%	2	2	2	0.01%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	3.65	0.312	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216_PC2_01	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	94.30%	4.24	0	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216_PC2_01	Isoform 1 of Probable nucleolar complex protein	IPI00022613,IPI00743803	91,388.00	100.00%	1	1	1	0.01%	1.63%	HNDIVDSDSDAEDR	K	G	95.00%	2.37	0.226	0	1	0	0	2	1,747.58	140	153	TRUE	
SNU216_PC2_01	Similar to phospholipase C, beta 3 (Fragment)	IPI00010400,IPI00181283	138,802.70	99.70%	1	1	1	0.01%	1.68%	RPPGPTTSPASTSLSSPGQR	R	D	94.30%	3.4	0.154	0	0	1	0	2	2,060.98	919	938	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc phosphodiesterase ELAC protei	IPI00396627	92,219.50	99.80%	2	2	2	0.01%	4.00%	HQPWQSPERPLSR	K	L	95.00%	2.38	0.332	0	1	0	0	2	1,697.79	194	206	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc phosphodiesterase ELAC protei	IPI00396627	92,219.50	99.80%	2	2	2	0.01%	4.00%	SSDSESNENEPHLPHGVSQR	R	R	95.00%	3.72	0.327	0	0	1	0	2	2,285.94	212	231	TRUE	
SNU216_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	15.60%	EESEESEAEPVQR	R	T	95.00%	2.72	0.377	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	15.60%	EVSDSEAGGGPQGER	R	K	95.00%	3.22	0.507	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	15.60%	EVSDSEAGGGPQGERK	R	N	95.00%	2.71	0.383	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	15.60%	RLSGSSEDEEDSGKGEPTAK	K	G	95.00%	2.24	0.294	0	1	0	0	2	2,318.85	328	347	TRUE	
SNU216_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	15.60%	SLKESEQESEEEILAQKK	K	E	95.00%	2.89	0.171	0	0	1	0	2	2,264.99	219	236	TRUE	
SNU216_PC2_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	15.60%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	3.15	0.28	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC2_01	Nuclear pore complex protein Nup107	IPI00028005	106,376.70	100.00%	1	1	1	0.01%	1.30%	SGFGEISSPVIR	R	E	87.70%	1.93	0.243	0	1	0	0	2	1,328.62	4	15	TRUE	
SNU216_PC2_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	3	3	3	0.02%	2.51%	EERSPQTLAPVGEDAMK	K	T	91.20%	3	0.197	0	0	1	0	2	1,937.87	1108	1124	TRUE	
SNU216_PC2_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	3	3	3	0.02%	2.51%	SPQTLAPVGEDAMKTPSPAAEDAR	R	E	95.00%	3.39	0.227	0	0	1	0	2	2,599.12	1111	1134	TRUE	
SNU216_PC2_01	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	3	3	3	0.02%	2.51%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	4.22	0.315	0	0	0	1	2	3,153.39	1111	1139	TRUE	
SNU216_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	100.00%	2	2	2	0.01%	7.14%	RLSSASTGKPPLSVEDDFEK	R	L	95.00%	3.26	0.237	0	0	1	0	2	2,243.06	758	777	TRUE	
SNU216_PC2_01	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	100.00%	2	2	2	0.01%	7.14%	VESSENVPSPTHPPVVINAADDDEDDDDQ	K	T	95.00%	5.29	0.432	0	0	1	0	2	4,208.71	141	178	TRUE	
SNU216_PC2_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	201,569.30	99.80%	2	2	2	0.01%	1.62%	ISKLEVTEIVKPSPK	K	R	95.00%	3.33	0.273	0	0	1	0	2	1,747.96	1167	1181	TRUE	
SNU216_PC2_01	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	201,569.30	99.80%	2	2	2	0.01%	1.62%	WDKDDFESEEEDVK	K	S	95.00%	3.28	0.209	0	1	0	0	2	1,850.70	1321	1334	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	100.00%	2	2	2	0.01%	3.22%	IHSPIPDMSK	K	F	95.00%	2.11	0.353	0	1	0	0	2	1,204.54	663	672	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	100.00%	2	2	2	0.01%	3.22%	LFPADTSPSTATK	K	I	91.60%	2.25	0.248	0	1	0	0	2	1,415.65	650	662	TRUE	
SNU216_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	6	6	7	0.04%	8.98%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	5.83	0.524	0	0	2	0	2	3,410.43	206	235	TRUE	
SNU216_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	6	6	7	0.04%	8.98%	EVTPESGPPK	K	V	95.00%	2.31	0.258	0	1	0	0	2	1,120.49	226	235	TRUE	
SNU216_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	6	6	7	0.04%	8.98%	GPQPPTVSPIR	K	S	93.30%	1.92	0.252	0	1	0	0	2	1,228.61	813	823	TRUE	
SNU216_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	6	6	7	0.04%	8.98%	GTDTQTPAVLSPSK	K	T	95.00%	2.86	0.452	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	6	6	7	0.04%	8.98%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	4.11	0.323	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216_PC2_01	NOL1 protein	IPI00654555	92,976.00	100.00%	6	6	7	0.04%	8.98%	TNKSPEAKPLPGK	K	L	95.00%	2.89	0.333	0	0	1	0	2	1,446.74	64	76	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	APESDTGDEDQDDQER	R	D	95.00%	3.92	0.639	0	3	0	0	2	1,771.63	575	589	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	DKSDSDTEGLLFSR	R	D	95.00%	3.02	0.385	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.65	0.336	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	PASVSENHDAGPDGDK	R	R	95.00%	3.15	0.497	0	1	0	0	2	1,675.66	439	454	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	PASVSENHDAGPDGDKR	R	D	95.00%	3.25	0.461	0	1	0	0	2	1,831.76	439	455	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	PASVSENHDAGPDGDKRDEDGESGGQR	R	S	81.40%	2.43	0.209	0	0	1	0	2	2,862.16	439	465	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	RLPSSPASPSPKGTPEK	R	A	95.00%	3.32	0.316	0	1	0	0	2	1,895.87	537	553	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	SDSDTEGLLFSR	K	D	95.00%	2.44	0.349	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	SEAEEGEVRTPTK	R	I	95.00%	2.79	0.252	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	SLDGAEFSR	R	P	95.00%	1.92	0.495	0	1	0	0	2	1,061.43	430	438	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.44	0.208	0	0	0	1	2	2,794.21	430	455	TRUE	
SNU216_PC2_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	12	15	0.10%	13.60%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.83	0.376	0	0	2	0	2	2,460.13	639	659	TRUE	
SNU216_PC2_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.8	0.323	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC2_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.95	0.478	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC2_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.90%	2	2	2	0.01%	6.91%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.88	0.364	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC2_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.90%	2	2	2	0.01%	6.91%	SSPQLDPLR	R	K	95.00%	1.77	0.309	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC2_01	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.80%	2	3	3	0.02%	2.71%	AHFNAMFQPSSPTR	R	R	95.00%	4.13	0.443	0	1	1	0	2	1,670.71	894	907	TRUE	
SNU216_PC2_01	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.80%	2	3	3	0.02%	2.71%	DLDRPESQSPK	K	R	95.00%	2.5	0.249	0	1	0	0	2	1,351.59	170	180	TRUE	
SNU216_PC2_01	Myosin-9	IPI00019502	226,406.30	100.00%	4	4	4	0.03%	1.23%	GAGDGSDEEVDGK	K	A	95.00%	2.72	0.455	0	1	0	0	2	1,315.47	1937	1949	TRUE	
SNU216_PC2_01	Myosin-9	IPI00019502	226,406.30	100.00%	4	4	4	0.03%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.18	0.469	0	1	0	0	2	2,254.90	1937	1959	TRUE	
SNU216_PC2_01	Myosin-9	IPI00019502	226,406.30	100.00%	4	4	4	0.03%	1.23%	KGAGDGSDEEVDGK	R	A	95.00%	3.54	0.526	0	1	0	0	2	1,443.56	1936	1949	TRUE	
SNU216_PC2_01	Myosin-9	IPI00019502	226,406.30	100.00%	4	4	4	0.03%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	4.48	0.428	0	0	1	0	2	2,085.86	1936	1956	TRUE	
SNU216_PC2_01	ribosomal protein S6 kinase, 90kDa, polypeptide 1	IPI00017305,IPI00477982,IP	65,055.30	100.00%	1	1	1	0.01%	2.55%	TPKDSPGIPPSAGAHQLFR	R	G	92.50%	3.18	0.138	0	0	1	0	2	2,056.00	202	220	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	5.08	0.345	0	0	1	1	2	3,599.65	366	400	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVIC	K	H	95.00%	3.81	0.413	0	0	1	1	2	4,001.82	363	400	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.79	0.354	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC2_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	4.88%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	92.70%	2.7	0.205	0	0	1	0	2	2,851.43	615	639	TRUE	
SNU216_PC2_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	4.88%	RASQEANLLTLAQK	R	A	95.00%	3.5	0.243	0	1	0	0	2	1,622.83	459	472	TRUE	
SNU216_PC2_01	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	4.88%	RESPSEERLEPK	R	R	95.00%	2.21	0.265	0	0	1	0	2	1,536.71	921	932	TRUE	
SNU216_PC2_01	far upstream element-binding protein	IPI00375441	67,560.60	99.80%	1	1	1	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	3.01	0.248	0	0	1	0	2	2,661.16	621	644	TRUE	
SNU216_PC2_01	Isoform Beta of Striatin-3	IPI00011461	87,661.80	100.00%	2	2	3	0.02%	5.87%	NLEQILNGGESPK	K	Q	95.00%	3.52	0.375	0	1	0	0	2	1,478.69	219	231	TRUE	
SNU216_PC2_01	Isoform Beta of Striatin-3	IPI00011461	87,661.80	100.00%	2	2	3	0.02%	5.87%	SSGDVLETFNFLENADDSDEDEENDMIEGI	R	D	95.00%	4.57	0.551	0	0	2	0	2	3,840.55	240	273	TRUE	
SNU216_PC2_01	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	100.00%	3	3	3	0.02%	8.41%	ARSMDSSDLSDGAVTLQEYLELKK	R	A	95.00%	6.2	0.527	0	0	1	0	2	2,736.28	408	431	TRUE	
SNU216_PC2_01	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	100.00%	3	3	3	0.02%	8.41%	SLSSPTDNLELSLR	K	S	95.00%	2.63	0.435	0	1	0	0	2	1,611.76	359	372	TRUE	
SNU216_PC2_01	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	100.00%	3	3	3	0.02%	8.41%	SQSDLDDQHDYDSVASDEDTDQEPLR	R	S	95.00%	4.95	0.157	0	0	1	0	2	3,060.19	373	398	TRUE	
SNU216_PC2_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	4	4	0.03%	2.60%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	4.51	0.477	0	1	1	0	2	2,461.21	1678	1699	TRUE	
SNU216_PC2_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	4	4	0.03%	2.60%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.18	0.117	0	0	0	1	2	3,457.49	2117	2144	TRUE	
SNU216_PC2_01	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	4	4	0.03%	2.60%	SAASPVVSSMPER	R	A	95.00%	2.42	0.387	0	1	0	0	2	1,397.61	1766	1778	TRUE	
SNU216_PC2_01	Isoform MEA6 of Cutaneous T-cell lymphoma-ass	IPI00006122,IPI00401163,IP	86,771.70	99.80%	1	1	1	0.01%	1.74%	AFLSPPTLLEGPLR	R	L	95.00%	2.45	0.38	0	1	0	0	2	1,590.83	533	546	TRUE	
SNU216_PC2_01	Isoform 4 of Phosphorylase b kinase beta regulat	IPI00181893,IPI00218571,IP	124,617.50	99.80%	1	1	1	0.01%	2.03%	QSSTPSAPELGQQPDVNISEWK	R	D	95.00%	3.85	0.438	0	1	0	0	2	2,478.12	698	719	TRUE	
SNU216_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	5.63%	DRTPPLLYR	R	D	95.00%	2.7	0.4	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	5.63%	LKSPSQKQDGGTAPVASASPK	K	L	86.80%	4.08	0.119	0	0	1	0	2	2,214.02	763	783	TRUE	
SNU216_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	5.63%	SLSPGGAALGYR	R	D	95.00%	2.4	0.233	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	5.63%	TTAPTEGKSPLK	R	K	95.00%	2.26	0.273	0	1	0	0	2	1,309.64	733	744	TRUE	
SNU216_PC2_01	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	5.63%	TTAPTEGKSPLKK	R	E	95.00%	2.74	0.302	0	1	1	0	2	1,437.74	733	745	TRUE	
SNU216_PC2_01	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	99.80%	2	3	3	0.02%	4.21%	LHSSNPNLSTLDFGEEK	R	N	95.00%	4.09	0.444	0	1	1	0	2	1,967.87	270	286	TRUE	
SNU216_PC2_01	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	99.80%	2	3	3	0.02%	4.21%	QLMEQDASSSPSAQVIGLK	K	N	95.00%	4.26	0.379	0	1	1	0	2	2,068.96	332	350	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	DSSKGEDSAEETEAK	R	P	95.00%	3.41	0.419	0	1	0	0	2	1,662.64	475	489	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	6.45	0.523	0	0	1	1	2	4,118.93	479	519	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	GSSEQAESDNMDVPPEDDSK	K	E	95.00%	3.66	0.473	0	1	0	0	2	2,216.82	55	74	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	GSSEQAESDNMDVPPEDDSKEGAGEQK	K	T	95.00%	4.1	0.388	0	0	1	0	2	2,916.14	55	81	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	PMEEDGEEKSPSK	R	K	95.00%	3.36	0.421	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	PMEEDGEEKSPSKK	R	K	95.00%	3.3	0.381	0	1	0	0	2	1,670.70	373	386	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	RPMEEDGEEKSPSK	K	K	95.00%	4.74	0.5	0	2	3	0	2	1,698.70	372	385	TRUE	
SNU216_PC2_01	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	8	11	14	0.09%	11.20%	VLQDMGLPTGAEGRDSSK	K	G	95.00%	3.65	0.337	0	1	1	0	2	1,940.88	461	478	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	118,981.40	99.80%	2	2	2	0.01%	1.36%	SPEPEATLTFPFLDK	K	M	95.00%	3.1	0.438	0	1	0	0	2	1,771.82	718	732	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	118,981.40	99.80%	2	2	2	0.01%	1.36%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	3.82	0.439	0	0	1	0	2	2,323.20	713	732	TRUE	
SNU216_PC2_01	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	100.00%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	5.67	0.0336	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216_PC2_01	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	99.80%	1	1	1	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.58	0.317	0	0	1	0	2	2,565.01	131	153	TRUE	
SNU216_PC2_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	2	3	3	0.02%	5.83%	AAVVTSPPPTTAPHK	R	E	95.00%	2.63	0.389	0	1	1	0	2	1,553.77	7	21	TRUE	
SNU216_PC2_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	2	3	3	0.02%	5.83%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	5.23	0.469	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC2_01	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	3	3	3	0.02%	5.02%	EDENDASDDEDDDEKRR	R	I	95.00%	2.86	0.338	0	0	1	0	2	2,132.75	256	272	TRUE	
SNU216_PC2_01	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	3	3	3	0.02%	5.02%	LVREDENDASDDEDDDEK	R	R	95.00%	3.57	0.326	0	1	0	0	2	2,188.80	253	270	TRUE	
SNU216_PC2_01	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	3	3	3	0.02%	5.02%	MADHLEGLSSDDEETSTDITNFNLEK	K	D	95.00%	4.53	0	0	1	0	0	2	3,071.21	549	574	TRUE	
SNU216_PC2_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.90%	2	2	2	0.01%	8.16%	FAFSPLSEEEEEEDEQKEPMLK	R	E	95.00%	3.12	0.337	0	0	1	0	2	2,592.11	478	498	TRUE	
SNU216_PC2_01	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.90%	2	2	2	0.01%	8.16%	WVEENVPSSVTDVALPALLDSDEER	K	M	95.00%	4.24	0.314	0	0	1	0	2	2,850.31	529	553	TRUE	
SNU216_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	6	6	6	0.04%	4.98%	GDTPGHATPGHGGATSSAR	R	K	95.00%	2.76	0.272	0	0	1	0	2	1,813.76	271	289	TRUE	
SNU216_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	6	6	6	0.04%	4.98%	GGDSIGETPTPGASK	R	R	95.00%	2.11	0.327	0	1	0	0	2	1,533.59	319	333	TRUE	
SNU216_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	6	6	6	0.04%	4.98%	GGDSIGETPTPGASKR	R	K	95.00%	3.48	0.512	0	1	0	0	2	1,689.69	319	334	TRUE	
SNU216_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	6	6	6	0.04%	4.98%	SRWDETPASQMGGSTPVLTPGK	K	T	95.00%	4.25	0.475	0	0	1	0	2	2,382.08	336	357	TRUE	
SNU216_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	6	6	6	0.04%	4.98%	TMIISPER	R	L	95.00%	2	0.304	0	1	0	0	2	1,026.47	125	132	TRUE	
SNU216_PC2_01	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	6	6	6	0.04%	4.98%	WDETPASQMGGSTPVLTPGK	R	T	95.00%	3.22	0.464	0	1	0	0	2	2,138.95	338	357	TRUE	
SNU216_PC2_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	5.34	0.413	0	0	1	0	2	2,962.19	870	898	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	4.16	0.447	0	0	1	0	2	3,209.61	696	726	TRUE	
SNU216_PC2_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.96	0.0285	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC2_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	DLSPTLIDNSAAK	R	Q	95.00%	2.56	0.318	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216_PC2_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.44	0.325	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC2_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	4.24	0.466	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	AKNWEDEDFYDSDDDTFLDR	K	T	95.00%	5.35	0.6	0	1	1	0	2	2,575.98	455	474	TRUE	
SNU216_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	KMLGEDSDEEEEMDTSER	K	K	95.00%	5	0.558	0	1	1	0	2	2,209.82	306	323	TRUE	
SNU216_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	MLGEDSDEEEEMDTSER	K	K	95.00%	3.35	0.398	0	1	0	0	2	2,081.72	307	323	TRUE	
SNU216_PC2_01	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	NWEDEDFYDSDDDTFLDR	K	T	95.00%	4.16	0.423	0	1	0	0	2	2,376.85	457	474	TRUE	
SNU216_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	QRSPIALPVKQEPPQIDAVK	R	R	95.00%	4.04	0.439	0	0	1	0	2	2,294.23	209	228	TRUE	
SNU216_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	SKFDSDEEEEDTENVEAASSGK	R	V	95.00%	7.03	0.633	0	1	1	0	2	2,482.96	286	307	TRUE	
SNU216_PC2_01	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	SPSPVPQEEHSDPEMTEEEKEYQMMLLTK	R	M	95.00%	4.77	0.362	0	0	1	0	2	3,659.43	311	339	TRUE	
SNU216_PC2_01	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	99,843.70	99.80%	1	1	1	0.01%	3.35%	YQDEDTPPQEHISPQITNEVIGPELVHVSEK	R	N	95.00%	4.18	0.347	0	0	1	0	2	3,608.68	110	140	TRUE	
SNU216_PC2_01	DNA topoisomerase 1	IPI00413611	90,729.70	100.00%	1	1	1	0.01%	3.40%	EKENGFSSPPQIKDEPEDDGYFVPPK	K	E	95.00%	4.4	0.34	0	0	1	0	2	3,029.35	105	130	TRUE	
SNU216_PC2_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	2	0.01%	3.62%	AVVVSPKEENK	R	A	95.00%	2.23	0.314	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216_PC2_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	2	0.01%	3.62%	KPSPQPSSPR	K	Q	95.00%	1.8	0.281	0	1	0	0	2	1,240.51	322	331	TRUE	
SNU216_PC2_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	5	5	0.03%	3.60%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	3.85	0.244	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216_PC2_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	5	5	0.03%	3.60%	SQDADSPGSSGAPENLTFK	K	E	95.00%	4.35	0.473	0	1	0	0	2	1,987.83	1784	1802	TRUE	
SNU216_PC2_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	5	5	0.03%	3.60%	SSPNVANQPPSPGGK	R	S	95.00%	3.3	0.231	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216_PC2_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	5	5	0.03%	3.60%	TSSVVTLEVAK	R	Q	95.00%	2.54	0.279	1	1	0	0	2	1,213.61	1080	1090	TRUE	
SNU216_PC2_01	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	4	4	6	0.04%	7.35%	ASPSSPGRQDSDEDDGPQR	K	V	95.00%	2.48	0.211	0	1	0	0	2	2,080.82	121	139	TRUE	
SNU216_PC2_01	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	4	4	6	0.04%	7.35%	HAQRSPEASQTDSPVESPR	R	L	95.00%	4.92	0.424	0	0	2	0	2	2,158.95	348	366	TRUE	
SNU216_PC2_01	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	4	4	6	0.04%	7.35%	SPGGGSEANGLALVSGFK	R	R	95.00%	3.85	0.456	0	2	0	0	2	1,727.80	183	200	TRUE	
SNU216_PC2_01	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	4	4	6	0.04%	7.35%	SSEPVQADESQSPR	R	D	94.90%	2.57	0.164	0	1	0	0	2	1,596.65	878	891	TRUE	
SNU216_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	18	0.11%	6.29%	LGASNSPGQPNSVK	K	R	95.00%	3.61	0.361	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	18	0.11%	6.29%	LGASNSPGQPNSVKR	K	K	95.00%	3.35	0.387	0	1	1	0	2	1,591.76	672	686	TRUE	
SNU216_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	18	0.11%	6.29%	LPVDSVFNKFEDEDSDDVPR	K	K	95.00%	2.95	0.263	0	0	1	0	2	2,403.04	689	708	TRUE	
SNU216_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	18	0.11%	6.29%	QEPESEEEEEEK	K	Q	95.00%	2.67	0.444	0	1	0	0	2	1,571.56	579	590	TRUE	
SNU216_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	18	0.11%	6.29%	QEPESEEEEEEKQEK	K	E	95.00%	3.61	0.387	0	6	0	0	2	1,956.76	579	593	TRUE	
SNU216_PC2_01	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	18	0.11%	6.29%	QEPESEEEEEEKQEKEEK	K	R	95.00%	3.44	0.415	0	2	5	0	2	2,342.94	579	596	TRUE	
SNU216_PC2_01	Bin3, bicoid-interacting 3	IPI00021320	74,355.60	100.00%	2	2	3	0.02%	3.48%	KTLTETIYK	R	N	95.00%	2.23	0.201	0	1	0	0	2	1,176.59	627	635	TRUE	
SNU216_PC2_01	Bin3, bicoid-interacting 3	IPI00021320	74,355.60	100.00%	2	2	3	0.02%	3.48%	TLNAETPKSSPLPAK	R	G	95.00%	3.32	0.358	0	2	0	0	2	1,713.79	208	222	TRUE	
SNU216_PC2_01	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	2	3	3	0.02%	2.15%	AASPPASASDLIEQQQK	R	R	95.00%	3.61	0.502	0	1	1	0	2	1,820.84	333	349	TRUE	
SNU216_PC2_01	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	2	3	3	0.02%	2.15%	AASPPASASDLIEQQQKR	R	G	95.00%	4.49	0.416	0	0	1	0	2	1,976.94	333	350	TRUE	
SNU216_PC2_01	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.90%	1	1	1	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.91	0.343	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216_PC2_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4	0.37	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC2_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.64	0.171	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	3.26	0.312	0	0	1	0	2	1,643.63	78	91	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	4.12	0.439	0	1	1	0	2	2,129.88	78	96	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	KAQAVSEEEEEEEGK	K	S	95.00%	3.92	0.47	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	4.41	0.458	0	0	2	0	2	2,257.97	77	96	TRUE	
SNU216_PC2_01	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	5.6	0.484	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216_PC2_01	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ALSSDSILSPAPDAR	R	A	95.00%	3.21	0.398	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216_PC2_01	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ASTPDWVSEGPQPGLR	R	R	95.00%	2.64	0.37	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216_PC2_01	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	3	4	7	0.04%	4.81%	DLFDLNSSEEDDTEGFSER	K	G	95.00%	3.78	0.59	0	2	0	0	2	2,364.84	666	684	TRUE	
SNU216_PC2_01	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	3	4	7	0.04%	4.81%	EAARSPDKPGGSPSASR	R	R	95.00%	3.75	0.361	0	2	2	0	2	1,749.79	45	61	TRUE	
SNU216_PC2_01	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	3	4	7	0.04%	4.81%	SPDKPGGSPSASR	R	R	95.00%	1.92	0.313	0	1	0	0	2	1,402.54	49	61	TRUE	
SNU216_PC2_01	triple functional domain	IPI00657953	346,902.60	99.70%	2	2	2	0.01%	1.32%	KGAANASGSSPDAPAK	R	D	95.00%	5.28	0.445	0	1	0	0	2	1,508.67	2420	2435	TRUE	
SNU216_PC2_01	triple functional domain	IPI00657953	346,902.60	99.70%	2	2	2	0.01%	1.32%	LLVRPTSSETPSAAELVSAIEELVK	R	S	81.90%	6.01	0.0058	0	0	1	0	2	2,719.42	1894	1918	TRUE	
SNU216_PC2_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	3.07%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	4.15	0.41	0	0	1	0	2	2,144.06	275	293	TRUE	
SNU216_PC2_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	3.07%	RPSPHDEEEFEVEEAAEAQAEPK	R	D	95.00%	5.75	0.462	0	0	1	0	2	2,704.14	1322	1344	TRUE	
SNU216_PC2_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	3.07%	VDHGAEIITQSPGR	R	S	95.00%	3.35	0.421	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC2_01	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	99.20%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	83.80%	2.16	0.166	0	1	0	0	2	1,768.67	272	284	TRUE	
SNU216_PC2_01	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	2	2	2	0.01%	1.47%	ESQLAHIKDEPPPLSPAPLTPATPSSLDPFFSF	R	E	95.00%	5.64	0.253	0	0	1	0	2	3,622.78	3896	3928	TRUE	
SNU216_PC2_01	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	2	2	2	0.01%	1.47%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	6.57	0.0989	0	0	1	0	2	3,367.43	3796	3826	TRUE	
SNU216_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	9	0.06%	9.05%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	5.2	0.515	0	0	3	0	2	3,291.30	348	375	TRUE	
SNU216_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	9	0.06%	9.05%	GDMSDEDDENEFFDAPEIITMPENLGHKR	K	T	95.00%	4.02	0.325	0	0	1	1	2	3,431.41	348	376	TRUE	
SNU216_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	9	0.06%	9.05%	MLAESDESGDEESVSQTDK	K	T	95.00%	3.46	0.391	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	9	0.06%	9.05%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	5.5	0.423	0	0	2	0	2	3,172.29	186	212	TRUE	
SNU216_PC2_01	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	9	0.06%	9.05%	SLSELESLKLPAESNEK	R	I	95.00%	2.73	0.385	0	1	0	0	2	1,953.94	238	254	TRUE	
SNU216_PC2_01	Glutaminyl-tRNA synthetase	IPI00026665	87,799.90	100.00%	1	1	1	0.01%	1.55%	RLSFLVSYIASK	R	K	95.00%	2.65	0.254	0	1	0	0	2	1,463.77	68	79	TRUE	
SNU216_PC2_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	58,473.70	99.80%	2	2	2	0.01%	2.50%	ASEDTTSGSPPK	R	K	95.00%	1.99	0.377	0	1	0	0	2	1,256.50	456	467	TRUE	
SNU216_PC2_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	58,473.70	99.80%	2	2	2	0.01%	2.50%	ASEDTTSGSPPKK	R	S	95.00%	2.95	0.456	0	1	0	0	2	1,384.60	456	468	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	AAVLSDSEDEEKASAK	K	K	94.30%	2.35	0.196	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	EAEDSDSDDNIK	K	R	95.00%	2.14	0.287	0	1	0	0	2	1,497.47	507	518	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	EAEDSDSDDNIKR	K	G	95.00%	2.45	0.362	0	2	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	EKTIASDSEEEAGK	R	E	95.00%	2.8	0.373	0	1	0	0	2	1,653.63	433	446	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	EKTIASDSEEEAGKELSDK	R	K	95.00%	3.23	0.465	0	1	0	0	2	2,225.91	433	451	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	FHSSDSEEEEHK	K	K	95.00%	1.57	0.448	0	1	0	0	2	1,700.49	360	371	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	FHSSDSEEEEHKK	K	Q	95.00%	2.15	0.339	0	1	0	0	2	1,748.62	360	372	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	GPASDSETEDASR	K	H	95.00%	2.35	0.495	0	2	0	0	2	1,401.52	310	322	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	HQASDSENEELPKPR	R	I	95.00%	2.47	0.222	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	HQASDSENEEPPKPR	R	M	95.00%	3.74	0.43	0	3	1	0	2	1,800.76	193	207	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	HSENETSDREDGLPK	R	G	81.20%	2.65	0.12	0	1	0	0	2	1,793.73	48	62	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	ISDSESEDPPR	R	H	95.00%	2.05	0.25	0	1	0	0	2	1,391.48	247	257	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	KFHSSDSEEEEHKK	K	Q	90.30%	2.84	0.147	0	0	0	1	2	1,876.72	359	372	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	MDSDEDEKEGEEEK	K	V	95.00%	3.41	0.409	0	2	0	0	2	1,765.60	375	388	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	MDSDEDEKEGEEEKVAK	K	R	95.00%	3.86	0.409	0	1	1	0	2	2,047.81	375	391	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	NQASDSENEELPKPR	R	V	95.00%	3.1	0.4	0	3	2	0	2	1,793.77	284	298	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	QKMDSDEDEKEGEEEK	K	V	95.00%	3.04	0.369	0	1	1	0	2	2,021.75	373	388	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	TIASDSEEEAGK	K	E	95.00%	1.87	0.408	0	1	0	0	2	1,396.49	435	446	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	TIASDSEEEAGKELSDK	K	K	95.00%	3.79	0.397	0	1	1	0	2	1,968.77	435	451	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	TIASDSEEEAGKELSDKK	K	N	95.00%	3.35	0.302	0	1	1	0	2	2,096.87	435	452	TRUE	
SNU216_PC2_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	27	35	0.22%	21.60%	VSDSESEGPQK	R	G	82.30%	1.9	0.194	0	1	0	0	2	1,242.49	299	309	TRUE	
SNU216_PC2_01	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.03%	7.54%	KASPEPPDSAEGALK	R	L	95.00%	4.32	0.466	0	1	1	0	2	1,576.73	545	559	TRUE	
SNU216_PC2_01	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.03%	7.54%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	D	92.80%	5.76	0.0387	0	0	1	0	2	3,241.49	610	641	TRUE	
SNU216_PC2_01	Protein C14orf4	IPI00019205	82,658.10	100.00%	3	4	4	0.03%	7.54%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	R	95.00%	5.11	0.0923	0	0	0	1	2	4,498.07	610	654	TRUE	
SNU216_PC2_01	Isoform B of Oxysterol-binding protein-related pr	IPI00075080,IPI00233796	105,777.90	99.20%	2	2	2	0.01%	2.32%	EISNFLKMIK	R	E	95.00%	2.55	0.265	0	1	0	0	2	1,302.65	376	385	TRUE	
SNU216_PC2_01	Isoform B of Oxysterol-binding protein-related pr	IPI00075080,IPI00233796	105,777.90	99.20%	2	2	2	0.01%	2.32%	SFEEEGEHLGSR	R	K	84.30%	2.22	0.151	0	1	0	0	2	1,456.57	499	510	TRUE	
SNU216_PC2_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	6.20%	DYDEEEQGYDSEKEK	R	K	95.00%	3.49	0.294	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC2_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	6.20%	VNGDDHHEEDMDMSD	K	-	95.00%	2.24	0.288	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216_PC2_01	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	3	4	4	0.03%	4.29%	RPLSSSHEASEGQAK	K	D	95.00%	2.93	0.443	0	1	1	0	2	1,663.74	173	187	TRUE	
SNU216_PC2_01	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	3	4	4	0.03%	4.29%	SLPITIEMLK	R	V	95.00%	2.21	0.224	0	1	0	0	2	1,224.63	464	473	TRUE	
SNU216_PC2_01	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	3	4	4	0.03%	4.29%	TRSLPITIEMLK	R	V	95.00%	2.53	0.252	0	1	0	0	2	1,481.78	462	473	TRUE	
SNU216_PC2_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.73%	GISPVVSEHR	K	K	95.00%	2.03	0.399	0	1	0	0	2	1,160.55	781	790	TRUE	
SNU216_PC2_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.73%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	3.23	0.221	0	0	1	0	2	2,454.13	755	776	TRUE	
SNU216_PC2_01	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.73%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.3	0.521	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	3.18%	FDHESSPGTDEDK	K	S	95.00%	2.26	0.215	0	1	0	0	2	1,543.56	740	752	TRUE	
SNU216_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	3.18%	FDHESSPGTDEDKSG	K	-	95.00%	4.01	0.464	0	3	0	0	2	1,687.61	740	754	TRUE	
SNU216_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	3.18%	KFDHESSPGTDEDK	K	S	95.00%	3.31	0.223	0	1	0	0	2	1,671.65	739	752	TRUE	
SNU216_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	3.18%	KFDHESSPGTDEDKSG	K	-	95.00%	4.89	0.503	0	3	1	0	2	1,815.71	739	754	TRUE	
SNU216_PC2_01	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	6	10	0.06%	3.18%	SETPPHWR	R	Q	95.00%	1.89	0.361	0	1	0	0	2	1,089.45	356	363	TRUE	
SNU216_PC2_01	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	99.80%	1	1	1	0.01%	1.44%	ASLEDAPVDDLTR	R	K	95.00%	2.58	0.409	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216_PC2_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	4	5	6	0.04%	7.57%	AKSPTPDGSER	R	I	90.50%	1.71	0.261	0	1	0	0	2	1,224.53	144	154	TRUE	
SNU216_PC2_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	4	5	6	0.04%	7.57%	DQKEEGNDYDTR	R	S	95.00%	2.72	0.14	0	1	0	0	2	1,549.58	256	267	TRUE	
SNU216_PC2_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	4	5	6	0.04%	7.57%	GISPIVFDR	R	S	87.20%	1.66	0.266	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216_PC2_01	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	4	5	6	0.04%	7.57%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.48	0.465	0	0	1	2	2	2,465.14	415	437	TRUE	
SNU216_PC2_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.26	0.534	0	1	1	0	2	2,873.37	59	85	TRUE	
SNU216_PC2_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	95.00%	3.86	0.507	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216_PC2_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	1	2	2	0.01%	2.02%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.61	0.169	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	8	0.05%	5.37%	DSSFTEVPRSPK	R	H	95.00%	3.06	0.442	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	8	0.05%	5.37%	EMEKSFDEQNVPK	R	R	83.60%	2.48	0.118	0	1	0	0	2	1,660.69	309	321	TRUE	
SNU216_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	8	0.05%	5.37%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.54	0.515	0	1	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	8	0.05%	5.37%	SPSFGDPQLSPEAR	R	P	95.00%	2.87	0.397	0	1	0	0	2	1,567.68	261	274	TRUE	
SNU216_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	8	0.05%	5.37%	SPSFGDPQLSPEARPR	R	C	95.00%	2.56	0.252	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	8	0.05%	5.37%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	5.32	0.568	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216_PC2_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	8	8	0.05%	5.37%	YGSFEEAEASYPILNR	K	A	95.00%	3.42	0.125	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216_PC2_01	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	100.00%	1	1	1	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	3.1	0.231	0	0	1	0	2	1,851.90	937	951	TRUE	
SNU216_PC2_01	Isoform 1 of GTPase-activating Rap/Ran-GAP dor	IPI00472044	231,687.40	99.80%	1	1	1	0.01%	0.73%	SSSTSDILEPFTVER	R	A	95.00%	2.88	0.222	0	1	0	0	2	1,747.78	842	856	TRUE	
SNU216_PC2_01	Isoform 1 of Retinoid X receptor-interacting prote	IPI00396071,IPI00743031,IP	79,927.30	100.00%	2	2	2	0.01%	4.59%	DLNESPVK	R	S	95.00%	2.18	0.17	1	0	0	0	2	981.429	675	682	TRUE	
SNU216_PC2_01	Isoform 1 of Retinoid X receptor-interacting prote	IPI00396071,IPI00743031,IP	79,927.30	100.00%	2	2	2	0.01%	4.59%	RLEDAFIVISDSDGEEPKEENGLQK	R	T	94.80%	2.95	0.2	0	0	1	0	2	2,978.31	35	59	TRUE	
SNU216_PC2_01	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	100.00%	2	2	2	0.01%	4.96%	DGLNQTTIPVSPPSTTKPSR	K	E	95.00%	3.43	0.39	0	0	1	0	2	2,176.06	474	493	TRUE	
SNU216_PC2_01	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	100.00%	2	2	2	0.01%	4.96%	EQYVPPRSPK	K	-	91.30%	2.39	0.17	0	1	0	0	2	1,280.60	596	605	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	AASPSPQSVR	K	R	92.50%	1.83	0.284	0	1	0	0	2	1,079.49	745	754	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	HRPSPPATPPPK	R	T	95.00%	2.69	0.435	0	3	2	0	2	1,441.64	394	405	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	KEKTPELPEPSVK	K	V	95.00%	2.44	0.263	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	KETESEAEDNLDDLEK	K	H	95.00%	4.66	0.497	0	3	1	0	2	1,944.80	879	894	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.79	0.369	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	6.67	0.151	0	0	4	2	2	2,791.42	772	797	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	KVELSESEEDKGGK	R	M	95.00%	3.13	0.322	0	1	0	0	2	1,614.73	454	467	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	RESPSPAPKPR	K	K	95.00%	3.2	0.399	0	2	1	0	2	1,301.64	443	453	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	RRSPSPAPPPR	R	R	94.70%	1.99	0.274	0	1	0	0	2	1,377.62	567	577	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	RRTPSPPPR	R	R	95.00%	2.07	0.221	0	1	0	0	2	1,223.54	588	596	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	RSPSPAPPPRR	R	R	90.70%	1.98	0.24	0	0	1	0	2	1,297.65	568	578	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	RTPTPPPR	R	R	92.50%	1.75	0.242	0	1	0	0	2	1,081.46	580	587	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	SPSPAPPPR	R	R	95.00%	2.4	0.36	0	1	0	0	2	985.4504	569	577	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	SVSGSPEPAAK	R	K	95.00%	2.47	0.387	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	TASPPPPPK	R	R	95.00%	1.99	0.398	1	1	0	0	2	971.46	623	631	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	TASPPPPPKR	R	R	95.00%	1.91	0.272	0	1	0	0	2	1,127.56	623	632	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	TPTPPPR	R	R	95.00%	1.22	0.351	1	0	0	0	2	925.3582	581	587	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	TRHSPTPQQSNR	K	T	95.00%	2.87	0.294	0	0	1	0	2	1,488.67	406	417	TRUE	
SNU216_PC2_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	36	0.23%	19.80%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.28	0.512	0	1	1	0	2	1,977.99	247	263	TRUE	
SNU216_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	8	10	0.06%	7.53%	ALGGEDSENEEELGDEAMMALDQSLASLF	K	L	95.00%	6.99	0.635	0	0	1	1	2	3,607.53	769	801	TRUE	
SNU216_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	8	10	0.06%	7.53%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.28	0.397	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	8	10	0.06%	7.53%	EIPSATQSPISK	K	K	95.00%	2.79	0.364	0	1	0	0	2	1,337.64	1156	1167	TRUE	
SNU216_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	8	10	0.06%	7.53%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.18	0.294	0	0	1	0	2	2,300.10	1254	1275	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	8	10	0.06%	7.53%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.76	0.386	0	2	2	0	2	2,172.01	1255	1275	TRUE	
SNU216_PC2_01	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	8	10	0.06%	7.53%	SPAPGAPTRSPSTPAK	K	S	95.00%	2.95	0.336	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216_PC2_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	3	3	0.02%	6.60%	DTEGGPKEEESPV	K	-	92.80%	2.13	0.283	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216_PC2_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	3	3	0.02%	6.60%	EEETSIDVAGKPNEVTK	K	A	94.80%	2.7	0.176	0	0	1	0	2	1,925.87	463	479	TRUE	
SNU216_PC2_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	3	3	0.02%	6.60%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	3.84	0.339	0	0	1	0	2	2,270.04	460	479	TRUE	
SNU216_PC2_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	2	2	2	0.01%	1.66%	GRSFAGNLNTYK	R	R	95.00%	3.2	0.26	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216_PC2_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	2	2	2	0.01%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	3.59	0.222	0	0	1	0	2	1,563.74	384	396	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	EISDDEAEEEK	K	G	95.00%	3.07	0.399	1	1	0	0	2	1,373.50	223	233	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	EISDDEAEEEKGEK	K	E	95.00%	3.19	0.343	0	0	1	0	2	1,687.66	223	236	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	EKEISDDEAEEEK	R	G	95.00%	2.99	0.433	0	1	1	0	2	1,630.64	221	233	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	3.44	0.311	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	EREKEISDDEAEEEK	K	G	95.00%	3.35	0.2	0	1	1	0	2	1,915.78	219	233	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	2.89	0.29	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	4.25	0.46	0	4	1	0	2	1,817.70	249	264	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	14	18	0.11%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	4.04	0.407	0	1	2	0	2	1,945.79	249	265	TRUE	
SNU216_PC2_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,727.80	100.00%	2	2	3	0.02%	3.12%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	5.14	0.529	0	0	2	0	2	2,778.05	587	608	TRUE	
SNU216_PC2_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,727.80	100.00%	2	2	3	0.02%	3.12%	TEDVMFISDNESFNPSLWEEQR	R	K	95.00%	4.03	0.591	0	1	0	0	2	2,753.14	433	454	TRUE	
SNU216_PC2_01	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	99.20%	1	1	1	0.01%	0.59%	SVSHGSNHTQKPDEQR	R	S	83.50%	2.46	0.232	0	0	0	1	2	1,886.81	924	939	TRUE	
SNU216_PC2_01	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	99.90%	1	2	2	0.01%	1.67%	EKPDSDDDLDIASLVTAK	R	L	95.00%	4.41	0.543	0	1	1	0	2	2,011.91	655	672	TRUE	
SNU216_PC2_01	General transcription factor 3C polypeptide 4	IPI00016725	92,002.20	99.80%	1	1	1	0.01%	2.92%	ILLVDSPGMGNADDEQQEEGTSSK	K	Q	95.00%	5.14	0.643	0	1	0	0	2	2,600.11	606	629	TRUE	
SNU216_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	5	0.03%	8.42%	EEAPASPLRPLYPQISPLK	K	I	95.00%	3.01	0.213	0	0	1	0	2	2,266.09	45	63	TRUE	
SNU216_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	5	0.03%	8.42%	EGSPIPHDPEFGSK	R	L	95.00%	3.18	0.506	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216_PC2_01	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	5	0.03%	8.42%	SAPASPTHPGLMSPR	R	S	95.00%	2.39	0.298	0	2	0	0	2	1,585.72	253	267	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	DKEVSDDEAEEK	R	E	95.00%	2.6	0.379	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	DKEVSDDEAEEKEDK	R	E	95.00%	4.44	0.376	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	EEKESEDKPEIEDVGSDEEEEK	K	K	95.00%	5.68	0.367	0	1	1	0	2	2,659.07	370	391	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	ERDKEVSDDEAEEK	K	E	95.00%	3.43	0.34	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.09	0.312	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.72	0.465	0	1	1	0	2	2,400.98	373	392	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	EVSDDEAEEKEDK	K	E	95.00%	3.57	0.484	0	1	0	0	2	1,602.61	351	363	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	EVSDDEAEEKEDKEEEK	K	E	95.00%	4.21	0.524	0	1	1	0	2	2,117.83	351	367	TRUE	
SNU216_PC2_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	9	14	14	0.09%	5.15%	PEIEDVGSDEEEEKK	K	D	84.10%	2.76	0.0971	0	1	0	0	2	1,812.74	378	392	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	9	0.06%	8.94%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.09	0.453	0	0	1	0	2	3,454.32	11	39	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	9	0.06%	8.94%	EVIDASDKEGMSPAK	K	R	95.00%	3.46	0.277	0	2	0	0	2	1,656.72	82	96	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	9	0.06%	8.94%	EVIDASDKEGMSPAKR	K	T	95.00%	3.31	0.278	0	1	0	0	2	1,812.82	82	97	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	9	0.06%	8.94%	KKSPIINESR	R	S	95.00%	2.87	0.29	0	1	1	0	2	1,251.65	275	284	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	9	0.06%	8.94%	SINEENGEVSEDQSQNK	K	H	95.00%	2.86	0.347	0	1	0	0	2	1,986.79	23	39	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	9	0.06%	8.94%	SPSPDDILER	R	V	95.00%	2.02	0.357	0	1	0	0	2	1,208.52	578	587	TRUE	
SNU216_PC2_01	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	8	9	0.06%	8.94%	VQSGMGLILQGYESGSEEEGEIHEK	K	A	95.00%	4	0.427	0	1	0	0	2	2,786.22	129	153	TRUE	
SNU216_PC2_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	5	5	0.03%	5.37%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	3.78	0.461	0	0	1	0	2	2,585.34	199	222	TRUE	
SNU216_PC2_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	5	5	0.03%	5.37%	SASQSSLDKLDQELK	R	E	95.00%	4.09	0.371	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216_PC2_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	5	5	0.03%	5.37%	SASQSSLDKLDQELKEQQK	R	E	95.00%	3	0.25	0	1	1	0	2	2,242.06	714	732	TRUE	
SNU216_PC2_01	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	4	5	5	0.03%	5.37%	YNNGSST	R	-	95.00%	0.578	0.833	1	0	0	0	2	982.1991	925	931	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	5	0.03%	10.10%	ERSRTGSESSQTGTSTTSSR	R	N	92.00%	2.82	0.164	0	0	1	0	2	2,341.87	416	435	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	5	0.03%	10.10%	SPPYTAFLGNLPYDVTEESIKEFFR	K	G	95.00%	5.53	0.442	0	0	1	0	2	3,000.41	93	117	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	5	0.03%	10.10%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.83	0.51	0	2	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC2_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	4	4	5	0.03%	10.10%	TGSESSQTGTSTTSSR	R	N	87.80%	3.42	0.0378	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC2_01	Isoform Long of Sodium/potassium-transporting ,	IPI00006482	112,899.50	100.00%	1	1	1	0.01%	1.47%	DKYEPAAVSEQGDKK	R	G	95.00%	3.17	0.311	0	0	1	0	2	1,744.78	8	22	TRUE	
SNU216_PC2_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	3.83	0.34	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216_PC2_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.72	0.382	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	2.8	0.222	0	0	0	1	2	2,929.37	1015	1043	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.27	0.425	0	1	1	0	2	2,090.97	1023	1043	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	NRSAEEGELAESK	R	S	95.00%	3.57	0.306	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	5.26	0.553	0	0	1	0	2	2,302.99	891	911	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	SAEEGELAESK	R	S	95.00%	2.19	0.385	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.01	0.502	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	SQEADVQDWEFR	R	K	95.00%	3.11	0.447	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	VPSSDEEVVEEPQSR	R	R	95.00%	4.14	0.447	0	2	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC2_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	12	0.08%	7.52%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.29	0.584	0	1	0	0	2	2,166.01	590	608	TRUE	
SNU216_PC2_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.9	0.23	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC2_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	3	3	0.02%	4.65%	RGSIGENQIK	K	D	84.10%	2.31	0.119	0	1	0	0	2	1,181.57	194	203	TRUE	
SNU216_PC2_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	2.71	0.276	0	1	0	0	2	1,553.73	194	206	TRUE	
SNU216_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	3	3	3	0.02%	3.66%	DPSASPGDAGEQAIR	R	Q	95.00%	2.29	0.35	0	1	0	0	2	1,550.65	286	300	TRUE	
SNU216_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	3	3	3	0.02%	3.66%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	4.55	0.294	0	0	1	0	2	2,657.30	709	732	TRUE	
SNU216_PC2_01	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	3	3	3	0.02%	3.66%	SLLDASEEAIK	K	K	95.00%	2.17	0.255	0	1	0	0	2	1,255.58	721	731	TRUE	
SNU216_PC2_01	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	ESENSGDSGYPSEK	R	R	95.00%	3.11	0.358	0	1	0	0	2	1,565.56	434	447	TRUE	
SNU216_PC2_01	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	KYESDEDSLGSSGR	R	V	95.00%	2.57	0.354	0	2	0	0	2	1,689.60	467	480	TRUE	
SNU216_PC2_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	2	2	2	0.01%	4.14%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	5.48	0.432	0	0	1	0	2	3,188.48	642	669	TRUE	
SNU216_PC2_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	2	2	2	0.01%	4.14%	LSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	89.40%	2.88	0.213	0	0	1	0	2	2,961.34	644	669	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 1	IPI00304379	88,209.30	98.80%	1	1	1	0.01%	2.04%	KATSDTLESPPKIIPK	R	Y	95.00%	3.57	0.372	0	0	1	0	2	1,804.95	305	320	TRUE	
SNU216_PC2_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.03%	12.80%	EEDEEPESPPEKK	K	T	95.00%	2.98	0.345	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC2_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.03%	12.80%	NSQEDSEDSEDKDVK	K	T	95.00%	3.77	0.419	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC2_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.03%	12.80%	SGKNSQEDSEDSEDKDVK	R	T	84.80%	2.16	0.181	0	1	0	0	2	2,236.76	50	67	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	ASSLSESSPPK	R	A	95.00%	2.21	0.237	0	1	0	0	2	1,169.51	367	377	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.31	0.475	0	0	3	0	2	3,217.28	668	695	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	ETPHSPGVEDAPIAK	R	V	95.00%	2.94	0.404	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	7.83	0.626	0	1	1	0	2	3,126.40	223	250	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	8	0.524	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	LRSPPEALVQGR	R	Y	95.00%	3.19	0.414	0	1	1	0	2	1,402.72	130	141	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	4.07	0.474	0	1	2	1	2	1,980.95	350	366	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.8	0.522	0	0	7	1	2	3,432.41	666	695	TRUE	
SNU216_PC2_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	9	15	25	0.16%	17.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.26	0.334	0	0	2	0	2	2,105.04	588	606	TRUE	
SNU216_PC2_01	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	GRNDSGEENVPLDLTR	R	E	95.00%	3.11	0.299	0	1	0	0	2	1,851.82	17	32	TRUE	
SNU216_PC2_01	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	2.72	0.287	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216_PC2_01	HSPC121	IPI00008998	44,424.70	100.00%	1	1	4	0.03%	3.22%	WLDESDAEMELR	R	A	95.00%	2.54	0.305	0	4	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC2_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.11%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	3.35	0.274	0	0	1	0	2	2,540.96	240	261	TRUE	
SNU216_PC2_01	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.11%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.97	0.422	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC2_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	3	3	0.02%	7.25%	GDSLKEPTSIAESSR	R	H	95.00%	2.5	0.283	0	1	1	0	2	1,656.75	325	339	TRUE	
SNU216_PC2_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.80%	2	3	3	0.02%	7.25%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.83	0.24	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC2_01	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	2	2	2	0.01%	2.04%	KTPLALAGSPTPK	K	N	95.00%	2.88	0.393	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216_PC2_01	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	2	2	2	0.01%	2.04%	NPEDKSPQLSLSPRPASPK	K	A	95.00%	3.65	0.237	0	0	1	0	2	2,208.01	919	937	TRUE	
SNU216_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	5.38%	GEIKDSPSSSPSPK	K	G	93.30%	2.68	0.164	0	1	0	0	2	1,582.70	333	347	TRUE	
SNU216_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	5.38%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	86.40%	6.44	0.0007	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	5.38%	NNMTASMFDLSMK	R	D	95.00%	2.34	0.382	0	1	0	0	2	1,569.61	151	163	TRUE	
SNU216_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	5.38%	RSSLLSLMTGK	R	K	95.00%	2.86	0.445	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC2_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	5.38%	RSSLLSLMTGKK	R	D	83.40%	2.13	0.217	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216_PC2_01	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	3.5	0.358	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216_PC2_01	Isoform 2 of AP-3 complex subunit delta-1	IPI00289608,IPI00719680	136,654.70	99.80%	1	1	1	0.01%	1.53%	NTETSKSPEKDVPMVEK	R	K	95.00%	3.25	0.232	0	0	1	0	2	1,998.91	823	839	TRUE	
SNU216_PC2_01	SCC-112 protein	IPI00303063	150,835.50	99.80%	1	1	1	0.01%	1.27%	AAVGQESPGGLEAGNAK	R	A	95.00%	2.9	0.343	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	AGAEDDEEKGEGTPR	K	E	95.00%	3.66	0.507	0	1	0	0	2	1,640.64	150	164	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	AGAEDDEEKGEGTPREEGK	K	A	89.20%	3.14	0.144	0	0	1	0	2	2,083.85	150	168	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	ASDLEDEESAAR	R	G	95.00%	2.36	0.431	0	1	0	0	2	1,372.53	45	56	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	GPSQEEEDNHSDEEDR	R	A	95.00%	3.42	0.525	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	3.14	0.23	0	0	1	0	2	2,464.94	57	77	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	GPSQEEEDNHSDEEDRASEPKSQDQDSEVI	R	G	88.40%	2.74	0.178	0	0	0	1	2	4,112.52	57	90	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	LGVSVSPSR	K	A	95.00%	1.87	0.288	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	RPNTSPDR	K	G	95.00%	2.12	0.288	0	1	0	0	2	1,022.44	848	855	TRUE	
SNU216_PC2_01	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	9	9	9	0.06%	10.20%	YEPSDKDRQSPPPAK	R	R	95.00%	2.53	0.366	0	1	0	0	2	1,794.81	833	847	TRUE	
SNU216_PC2_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	1	1	1	0.01%	0.87%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	3.41	0.288	0	0	1	0	2	2,547.16	2310	2332	TRUE	
SNU216_PC2_01	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	99.80%	2	2	3	0.02%	2.29%	NASASFQELEDK	R	K	95.00%	2.18	0.366	0	1	0	0	2	1,498.55	45	56	TRUE	
SNU216_PC2_01	Zuotin-related factor 1	IPI00455199,IPI00748033	65,915.00	99.80%	2	2	3	0.02%	2.29%	NASASFQELEDKK	R	E	95.00%	2.81	0.373	0	2	0	0	2	1,546.68	45	57	TRUE	
SNU216_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	5.28%	NPSDSAVHSPFTK	K	R	95.00%	3.54	0.508	0	1	0	0	2	1,466.63	410	422	TRUE	
SNU216_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	5.28%	RYPSSISSSPQK	R	D	95.00%	2.55	0.209	0	1	0	0	2	1,416.65	603	614	TRUE	
SNU216_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	5.28%	RYPSSISSSPQKDLTQAK	R	N	94.30%	3.04	0.151	0	0	1	0	2	2,073.00	603	620	TRUE	
SNU216_PC2_01	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	5.28%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	3.92	0.425	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216_PC2_01	LOC387680 protein (Fragment)	IPI00718792	132,578.30	99.90%	1	1	1	0.01%	1.32%	RTPSDDEEDNLFAPPK	R	L	95.00%	3.8	0.428	0	1	0	0	2	1,910.82	224	239	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	LRSYEDMIGEEVPSDQYYWAPLAQHER	R	G	95.00%	6.73	0.597	0	0	1	0	2	3,362.48	264	290	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	SGDLGDMEPLK	R	G	86.10%	1.91	0.205	0	1	0	0	2	1,241.51	860	870	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	SGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.33	0.463	0	1	0	0	2	2,097.96	860	878	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	SLDNNYSTPNER	K	G	95.00%	2.75	0.371	0	1	0	0	2	1,489.60	839	850	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	SMGYDDLDYGMMSDYGTAR	R	R	95.00%	4.09	0.625	0	1	0	0	2	2,227.80	234	252	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	SQSSHSYDDSTLPLIDR	R	N	95.00%	3.95	0.0614	0	1	0	0	2	2,000.86	799	815	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	TLDRSGDLGDMEPLK	R	G	95.00%	3.02	0.268	0	1	0	0	2	1,726.77	856	870	TRUE	
SNU216_PC2_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	8	8	8	0.05%	11.10%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.85	0.445	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC2_01	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	4	4	0.03%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	5.11	0.432	0	1	1	0	2	2,298.08	9	31	TRUE	
SNU216_PC2_01	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	4	4	0.03%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	5.14	0.604	0	1	1	0	2	2,541.20	7	31	TRUE	
SNU216_PC2_01	Heat shock 70 kDa protein 4	IPI00002966	94,301.00	100.00%	1	1	1	0.01%	1.67%	AESEEMETSQAGSK	K	D	95.00%	2.98	0.5	0	1	0	0	2	1,563.59	544	557	TRUE	
SNU216_PC2_01	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	99.80%	2	2	5	0.03%	6.22%	EMDESLANLSEDEYYSEEER	R	N	95.00%	4.68	0.132	0	1	0	0	2	2,517.95	122	141	TRUE	
SNU216_PC2_01	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	99.80%	2	2	5	0.03%	6.22%	KLPPPPPQAPPEEENESEPEEPSGVEGAAFQ	K	L	95.00%	5.85	0.502	0	0	4	0	2	3,606.63	150	182	TRUE	
SNU216_PC2_01	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	99.80%	2	2	2	0.01%	5.09%	INPDNYGMDLNSDDSTDDEAHPR	K	K	95.00%	2.06	0.296	0	0	1	0	2	2,830.96	822	844	TRUE	
SNU216_PC2_01	Inner centromere protein	IPI00024970,IPI00759472	106,114.60	99.80%	2	2	2	0.01%	5.09%	TDSQSVRHSPIAPSSPSPQVLAQK	R	Y	95.00%	4.48	0.48	0	0	1	0	2	2,597.27	298	321	TRUE	
SNU216_PC2_01	CDNA FLJ31897 fis, clone NT2RP7004080, weakly	REVERSE_IPI00061008-R,RE	35,944.10	99.50%	2	2	2	0.01%	9.37%	DEPTVMKEPTPVKDPAPIK	K	G	95.00%	2.77	0.263	0	1	0	0	2	2,188.06	262	280	TRUE	
SNU216_PC2_01	CDNA FLJ31897 fis, clone NT2RP7004080, weakly	REVERSE_IPI00061008-R,RE	35,944.10	99.50%	2	2	2	0.01%	9.37%	KSSPANEPAPPR	K	E	89.50%	2.06	0.239	0	1	0	0	2	1,330.62	311	322	TRUE	
SNU216_PC2_01	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	99.80%	2	3	4	0.03%	3.43%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.47	0.4	0	2	0	0	2	1,993.88	1024	1042	TRUE	
SNU216_PC2_01	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	99.80%	2	3	4	0.03%	3.43%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.16	0.583	0	1	1	0	2	2,329.01	1043	1066	TRUE	
SNU216_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	7	7	0.04%	8.72%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.77	0.194	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	7	7	0.04%	8.72%	ARHDSPDPSPPR	R	R	94.50%	1.93	0.247	0	1	0	0	2	1,491.58	193	204	TRUE	
SNU216_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	7	7	0.04%	8.72%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.92	0.471	0	1	1	0	2	1,861.85	269	284	TRUE	
SNU216_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	7	7	0.04%	8.72%	HDTPDPSPLR	R	G	95.00%	2.36	0.271	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	7	7	0.04%	8.72%	NSKYEYDPDISPPR	K	K	95.00%	2.95	0.345	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216_PC2_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	6	7	7	0.04%	8.72%	YEYDPDISPPR	K	K	95.00%	2.2	0.359	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216_PC2_01	Striatin	IPI00014456,IPI00654594	81,689.60	99.80%	2	2	2	0.01%	7.31%	FLESAAADFSDEDEDDDVDGR	K	E	95.00%	4.71	0.56	0	1	0	0	2	2,397.89	236	256	TRUE	
SNU216_PC2_01	Striatin	IPI00014456,IPI00654594	81,689.60	99.80%	2	2	2	0.01%	7.31%	YGTELNQGDMKPPSYDSDEGNETEVQPQC	K	Q	95.00%	5.65	0.475	0	0	1	0	2	4,223.79	121	156	TRUE	
SNU216_PC2_01	KIAA0433 protein (Fragment)	IPI00021701,IPI00178375	138,110.20	99.80%	1	2	2	0.01%	1.59%	HFFHHADEDDEEEDDSPPER	R	Q	95.00%	4	0.396	0	0	1	1	2	2,532.92	23	42	TRUE	
SNU216_PC2_01	zinc finger protein 609	IPI00307591	151,192.70	100.00%	2	2	2	0.01%	1.91%	LVEPHSPSPSSK	R	F	95.00%	2.65	0.425	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216_PC2_01	zinc finger protein 609	IPI00307591	151,192.70	100.00%	2	2	2	0.01%	1.91%	TNSMGSATGPLPGTK	R	V	95.00%	2.47	0.202	0	1	0	0	2	1,498.66	465	479	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	GYS1 protein	IPI00157144,IPI00303868	83,787.10	99.80%	1	2	3	0.02%	2.08%	HSSPHQSEDEEDPR	R	N	95.00%	3.9	0.438	0	1	2	0	2	1,729.65	651	664	TRUE	
SNU216_PC2_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	2	2	0.01%	2.84%	SSPGAGPSDHHSASRDER	R	F	95.00%	2.77	0.27	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216_PC2_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	2	2	0.01%	2.84%	YEDDGISDDEIEGKR	R	T	95.00%	2.44	0.24	0	1	0	0	2	1,820.72	22	36	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.87	0.505	0	0	1	1	2	1,836.88	210	226	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	2.7	0.374	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216_PC2_01	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	3.39	0.343	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216_PC2_01	hypothetical protein LOC157769	IPI00152671	93,971.90	99.80%	1	1	1	0.01%	4.42%	SPVQEASSATDTDTNSQEDPADTASVSSLSI	R	R	95.00%	7.18	0.0711	0	0	1	0	2	3,801.65	340	376	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.05	0.572	0	1	1	0	2	2,433.86	225	246	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	K	95.00%	5.56	0.588	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	GGNVFAALIQDQSEEEEEEK	K	H	95.00%	4.56	0.313	0	1	0	0	2	2,431.02	129	149	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.86	0.515	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	4.94	0.5	0	0	1	1	2	3,659.47	224	256	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	4.81	0.511	0	3	1	1	2	2,174.04	104	122	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	LSVPTSDEEDEVPAPK	K	P	95.00%	2.75	0.27	0	2	0	0	2	1,872.76	105	120	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	5.07	0.496	0	2	2	0	2	2,045.94	105	122	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	QQPPEPEWIGDGESTSPSDK	K	V	95.00%	3.81	0.357	0	1	0	0	2	2,263.94	7	26	TRUE	
SNU216_PC2_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	10	16	21	0.13%	11.30%	QQPPEPEWIGDGESTSPSDKVVK	K	K	95.00%	3.41	0.299	0	0	1	0	2	2,590.17	7	29	TRUE	
SNU216_PC2_01	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	3	3	0.02%	5.69%	RPWRPEEAVEDPDEEDEDNTSEAENGFSLE	K	L	95.00%	5.25	0.459	0	0	1	0	2	4,068.73	14	47	TRUE	
SNU216_PC2_01	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	3	3	0.02%	5.69%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	7.31	0.715	0	1	1	0	2	3,132.14	621	646	TRUE	
SNU216_PC2_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.46%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	5.63	0.445	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216_PC2_01	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.46%	SPQGQLDTSESKPDSFFLEPLMPAVLKPAK	R	E	95.00%	3.13	0.188	0	0	1	0	2	3,337.64	297	326	TRUE	
SNU216_PC2_01	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	5	5	0.03%	6.52%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.73	0.36	0	1	1	0	2	2,242.10	907	927	TRUE	
SNU216_PC2_01	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	5	5	0.03%	6.52%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	6.98	0.623	0	1	1	0	2	3,022.17	279	305	TRUE	
SNU216_PC2_01	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	5	5	0.03%	6.52%	VKLDDDSDDDEESK	R	E	95.00%	4.01	0.529	0	1	0	0	2	1,689.64	598	611	TRUE	
SNU216_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGK	K	D	95.00%	6.08	0.506	0	0	1	0	2	3,323.24	929	957	TRUE	
SNU216_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGKD	K	-	95.00%	6.82	0.535	0	0	1	1	2	3,916.52	929	962	TRUE	
SNU216_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	D	95.00%	6.23	0.414	0	0	1	0	2	3,564.42	927	957	TRUE	
SNU216_PC2_01	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	-	95.00%	6.88	0.57	0	0	1	1	2	4,157.70	927	962	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	AALAPAKESPR	R	K	95.00%	2.31	0.352	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	AALAPAKESPRK	R	G	91.10%	2.63	0.162	0	0	1	0	2	1,318.69	821	832	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	KGAAPTPPGK	R	T	95.00%	2.26	0.376	0	1	0	0	2	1,003.50	832	841	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	KLGAGEGGEASVSPEK	K	T	95.00%	3.77	0.341	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	KLGAGEGGEASVSPEKTSTTSK	K	G	91.80%	3.37	0.132	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	KLSGDQPAAR	R	T	95.00%	1.98	0.292	0	1	0	0	2	1,122.53	1271	1280	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	KSAEPSANTTLVSETEEEGSVPAFGAAAK	R	P	95.00%	4.9	0.137	0	0	1	0	2	2,958.36	159	187	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	LGAGEGGEASVSPEK	K	T	95.00%	3.39	0.455	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.5	0.231	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	PTSSPAKGPPQK	K	A	95.00%	2.59	0.161	0	1	0	0	2	1,274.61	503	514	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	SLGNILQAKPTSSPAK	K	G	95.00%	3.34	0.359	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	3.76	0.364	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	TSQVGAASAPAKESPR	K	K	95.00%	4.06	0.506	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	TSQVGAASAPAKESPRK	K	G	95.00%	3.28	0.314	0	0	1	0	2	1,764.86	291	307	TRUE	
SNU216_PC2_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	17	17	0.11%	9.36%	TVANLLSGKSPR	K	K	95.00%	2.44	0.331	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216_PC2_01	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	99.80%	1	1	1	0.01%	3.28%	RLSTEHSSVSEYHPADGYAFSSNIYTR	K	G	85.30%	5.75	0.0287	0	0	0	1	2	3,154.39	476	502	TRUE	
SNU216_PC2_01	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	98.80%	1	1	1	0.01%	3.78%	GHTDTEGRPPSPPPTSTPEK	R	C	95.00%	2.47	0.234	0	0	1	0	2	2,167.97	353	372	TRUE	
SNU216_PC2_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	5	5	6	0.04%	6.23%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.27	0.43	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216_PC2_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	5	5	6	0.04%	6.23%	EEPVSSGPEEAVGK	K	S	95.00%	2.48	0.367	0	2	0	0	2	1,494.64	565	578	TRUE	
SNU216_PC2_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	5	5	6	0.04%	6.23%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.21	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	EGEDGDQPTTPPKPLK	K	T	94.00%	2.52	0.171	0	1	0	0	2	1,788.81	174	189	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	4.24	0.313	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	EWNGVVSESDSPVK	K	R	95.00%	3.36	0.415	0	1	0	0	2	1,612.69	41	54	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	KQSQIQNQQGEDSGSDPEDTY	R	-	83.00%	3.54	0.029	0	1	0	0	2	2,513.93	899	919	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	RTIQEVLEEQSEDEDREAK	K	R	95.00%	4.36	0.35	0	0	1	0	2	2,384.06	131	149	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	TIQEVLEEQSEDEDR	R	E	95.00%	3.3	0.295	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	TIQEVLEEQSEDEDREAK	R	R	95.00%	3.38	0.176	0	1	0	0	2	2,227.96	132	149	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	TIQEVLEEQSEDEDREAKR	R	K	95.00%	3.11	0.204	0	0	1	0	2	2,384.06	132	150	TRUE	
SNU216_PC2_01	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	10.90%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.56	0.505	0	3	0	0	2	1,839.79	63	79	TRUE	
SNU216_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	4	5	0.03%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFDI	K	Q	95.00%	7.84	0.49	0	0	2	1	2	3,353.45	35	69	TRUE	
SNU216_PC2_01	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	4	5	0.03%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFDI	K	E	95.00%	7.98	0.503	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216_PC2_01	nucleoporin 214kDa	IPI00643352	213,619.00	99.30%	2	2	2	0.01%	1.48%	ITPPAAKPGSPQAK	R	S	95.00%	2.88	0.232	0	0	1	0	2	1,442.74	669	682	TRUE	
SNU216_PC2_01	nucleoporin 214kDa	IPI00643352	213,619.00	99.30%	2	2	2	0.01%	1.48%	SPGSTPTTPTSSQAPQK	K	L	85.30%	3.48	0.0236	0	1	0	0	2	1,831.75	430	446	TRUE	
SNU216_PC2_01	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.43	0.348	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216_PC2_01	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	99.80%	2	2	2	0.01%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	3.29	0.335	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	11	25	0.16%	9.64%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.84	0.402	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	11	25	0.16%	9.64%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	5.16	0.461	0	1	1	1	2	2,624.06	152	174	TRUE	
SNU216_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	11	25	0.16%	9.64%	SGDETPGSEVPGDK	R	A	95.00%	3.46	0.52	1	2	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	11	25	0.16%	9.64%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	5.43	0.69	0	1	0	0	2	2,857.12	161	187	TRUE	
SNU216_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	11	25	0.16%	9.64%	SKSPLPPEEEAK	R	D	93.80%	2.22	0.193	0	1	0	0	2	1,391.65	226	237	TRUE	
SNU216_PC2_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	11	25	0.16%	9.64%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	7.53	0.558	0	0	2	13	2	4,198.92	226	261	TRUE	
SNU216_PC2_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	2	2	0.01%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.06	0.258	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216_PC2_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	2	2	0.01%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	6.47	0.484	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216_PC2_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	1	1	1	0.01%	2.62%	NKSNEDQSMGNWQIK	R	R	95.00%	3.2	0.438	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216_PC2_01	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	2	0.01%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.96	0.596	0	1	1	0	2	2,727.04	12	35	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.39	0.314	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216_PC2_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	KRVSVELTNSLFK	R	H	95.00%	3.38	0.347	0	1	1	0	2	1,600.85	660	672	TRUE	
SNU216_PC2_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	RVSVELTNSLFK	K	H	95.00%	2.47	0.281	0	1	0	0	2	1,472.75	661	672	TRUE	
SNU216_PC2_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	99.80%	2	2	2	0.01%	2.12%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	3.55	0.325	0	0	1	0	2	2,295.91	725	743	TRUE	
SNU216_PC2_01	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	99.80%	2	2	2	0.01%	2.12%	KRQSPEPSPVTLGR	R	R	95.00%	3.11	0.257	0	0	1	0	2	1,631.83	1411	1424	TRUE	
SNU216_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	6.81%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	4.07	0.333	0	1	1	0	2	2,376.91	948	966	TRUE	
SNU216_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	6.81%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	93.50%	7.12	0	0	0	1	0	2	4,426.91	1057	1096	TRUE	
SNU216_PC2_01	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	6.81%	VIPEDASESEEKLDQK	K	E	95.00%	2.63	0.298	0	1	0	0	2	1,896.85	915	930	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	AEGEPQEESPLK	K	S	94.50%	2.22	0.217	0	1	0	0	2	1,393.59	169	180	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	AEGEWEDQEALDYFSDK	R	E	95.00%	2.58	0.203	0	1	0	0	2	2,111.81	371	387	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.55	0.41	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	DLFDYSPPLHK	K	N	95.00%	2.23	0.288	0	1	0	0	2	1,411.63	507	517	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	ETQSPEQVKSEK	K	L	95.00%	3.19	0.404	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.41	0.585	0	3	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	FNDSEGDDTEETEDYRQFR	K	K	95.00%	3	0.199	0	0	1	0	2	2,432.92	394	412	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.47	0.465	0	1	4	1	2	2,726.13	369	391	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	KAEGEPQEESPLK	K	S	95.00%	3.93	0.407	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	KAEGEPQEESPLKSK	K	S	95.00%	4.44	0.457	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	KETQSPEQVKSEK	K	L	95.00%	3.8	0.417	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	LKDLFDYSPPLHK	K	N	95.00%	3.17	0.308	0	2	1	0	2	1,652.81	505	517	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	NTPSQHSHSIQHSPER	K	S	95.00%	3.07	0.315	0	1	1	0	2	2,001.80	256	271	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.86	0.52	0	2	1	0	2	2,257.84	392	409	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	4.4	0.35	0	0	1	1	2	2,903.23	181	204	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.88	0.421	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	YSPSQNSPIHHIPSR	R	R	95.00%	3.29	0.42	0	1	1	0	2	1,799.82	284	298	TRUE	
SNU216_PC2_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	18	27	34	0.22%	17.30%	YSPSQNSPIHHIPSRR	R	S	95.00%	3.51	0.373	0	0	0	1	2	1,955.92	284	299	TRUE	
SNU216_PC2_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	129,546.30	99.70%	2	2	2	0.01%	2.81%	LLGLNELDDLLGKESPSK	R	D	93.90%	2.83	0.174	0	1	0	0	2	2,021.02	762	779	TRUE	
SNU216_PC2_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	129,546.30	99.70%	2	2	2	0.01%	2.81%	VASPSQGQVGSSSPKR	R	S	95.00%	3.8	0.229	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216_PC2_01	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	2	2	0.01%	3.86%	DGEQSPNVSLMQR	R	M	95.00%	2.74	0.274	0	1	0	0	2	1,540.65	332	344	TRUE	
SNU216_PC2_01	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	2	2	0.01%	3.86%	DSALQDTDDSDDDPVLIPGAR	R	Y	95.00%	4.89	0.491	0	1	0	0	2	2,374.93	668	688	TRUE	
SNU216_PC2_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	99.80%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.41	0.566	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	94.60%	5.88	0.0547	0	0	1	0	2	4,155.93	282	317	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	GNLLHFPSSQGEEEKEK	R	L	92.20%	2.85	0.167	0	0	1	0	2	2,008.90	1065	1081	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	90.90%	5.43	0.0523	0	0	0	1	2	4,250.79	1206	1243	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	4.29	0.446	0	0	1	0	2	2,641.12	541	563	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	KNGSTAVAESVASPQK	R	T	95.00%	3.13	0.266	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.38	0.569	0	0	1	0	2	2,539.15	1112	1134	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	7.17	0.601	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	4.26	0.313	0	0	1	0	2	2,457.22	1090	1111	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.2	0.488	0	0	1	0	2	3,282.51	1464	1495	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	SDSPEIPFQAAAGPSDGLDASSPGNSFVGLF	R	V	95.00%	4.61	0.371	0	0	1	0	2	3,126.41	1465	1495	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	SEDMPFSPK	R	A	95.00%	2.39	0.311	0	1	0	0	2	1,117.43	264	272	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	STPFIVPSSPTEQEGR	R	Q	95.00%	2.58	0.21	0	1	0	0	2	1,811.82	377	392	TRUE	
SNU216_PC2_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	13	13	13	0.08%	12.80%	TSSGTSLSAMHSSGSSGK	R	G	85.90%	3.55	0.0194	0	1	0	0	2	1,748.72	1320	1337	TRUE	
SNU216_PC2_01	Chromosome 13 open reading frame 10	IPI00166555,IPI00329545	111,147.80	99.80%	1	1	1	0.01%	1.29%	EGSTQQLQTTSPK	R	V	95.00%	2.66	0.192	0	1	0	0	2	1,484.66	607	619	TRUE	
SNU216_PC2_01	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	2	0.01%	2.90%	DMQPLSPISVHER	R	Y	95.00%	2.49	0.394	0	1	0	0	2	1,588.72	635	647	TRUE	
SNU216_PC2_01	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	2	0.01%	2.90%	VKSPVSLTAHSLIGASPK	K	Q	95.00%	4.36	0.444	0	0	1	0	2	1,872.00	747	764	TRUE	
SNU216_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	9	0.06%	5.64%	FASDDEHDEHDENGATGPVK	K	R	95.00%	4.22	0.448	0	0	1	0	2	2,249.86	364	383	TRUE	
SNU216_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	9	0.06%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.41	0.37	0	1	2	1	2	2,405.96	364	384	TRUE	
SNU216_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	9	0.06%	5.64%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	3.04	0.33	0	0	1	0	2	2,479.00	362	383	TRUE	
SNU216_PC3_01	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	9	0.06%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	3.96	0.428	0	0	1	2	2	2,635.11	362	384	TRUE	
SNU216_PC3_01	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	67,334.90	100.00%	1	1	2	0.01%	5.62%	KILDPNTGEPAPVLSSPPPADVSTFLAFPSPE	R	L	95.00%	6.55	0.0346	0	0	2	0	2	3,498.74	449	481	TRUE	
SNU216_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	6	0.04%	9.50%	KPSGSPDLWK	R	L	95.00%	2.3	0.283	0	1	0	0	2	1,194.56	441	450	TRUE	
SNU216_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	6	0.04%	9.50%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	5.03	0.496	0	0	2	0	2	2,526.21	280	301	TRUE	
SNU216_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	6	0.04%	9.50%	KTSPASLDFPESQK	R	S	95.00%	3.27	0.432	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	6	0.04%	9.50%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	3.13	0.214	0	0	1	0	2	2,314.11	199	219	TRUE	
SNU216_PC3_01	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	6	0.04%	9.50%	TAPTLSPEHWK	K	A	95.00%	2.47	0.314	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216_PC3_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.38	0.465	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC3_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.17	0.246	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC3_01	P63 protein	IPI00141318	66,022.20	100.00%	1	1	1	0.01%	2.16%	GAHPSGGADDVAK	K	K	95.00%	2.35	0.372	0	1	0	0	2	1,261.52	22	34	TRUE	
SNU216_PC3_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.39	0.307	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216_PC3_01	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	3.46	0.297	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216_PC3_01	Isoform 1 of Heat shock cognate 71 kDa protein	IPI00003865	70,899.80	100.00%	1	1	1	0.01%	3.41%	GPAVGIDLGTTYSCVGVFQHGK	K	V	95.00%	2.69	0.231	0	0	1	0	2	2,343.08	4	25	TRUE	
SNU216_PC3_01	NMD3 homolog	IPI00101049	57,603.40	99.80%	1	1	1	0.01%	3.38%	DSAIPVESDTDDEGAPR	R	I	95.00%	2.87	0.397	0	1	0	0	2	1,853.74	461	477	TRUE	
SNU216_PC3_01	Myosin-9	IPI00019502	226,406.30	100.00%	1	1	1	0.01%	1.17%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	3.38	0.387	0	1	0	0	2	2,254.90	1937	1959	TRUE	
SNU216_PC3_01	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.90%	2	3	3	0.02%	10.50%	AVSETPAVPPVSEDEDDDDDATPPPVIAPI	K	S	95.00%	5.76	0.526	0	0	1	1	2	3,888.73	163	198	TRUE	
SNU216_PC3_01	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.90%	2	3	3	0.02%	10.50%	DVATSPISPTENNTTPPDALTR	R	N	86.00%	4.29	0.0006	0	1	0	0	2	2,377.09	216	237	TRUE	
SNU216_PC3_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	4	0.03%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.87	0.531	0	1	1	0	2	2,873.37	59	85	TRUE	
SNU216_PC3_01	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	4	0.03%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	95.00%	2.91	0.28	0	2	0	0	2	2,030.83	86	106	TRUE	
SNU216_PC3_01	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	3	3	0.02%	3.49%	KRSVQEGENPDDGVR	R	G	95.00%	4.96	0.417	0	1	1	0	2	1,765.79	12	26	TRUE	
SNU216_PC3_01	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	3	3	0.02%	3.49%	SVQEGENPDDGVR	R	G	95.00%	2.43	0.394	0	1	0	0	2	1,481.59	14	26	TRUE	
SNU216_PC3_01	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.50%	2	2	2	0.01%	3.56%	ALPNNTSSSPQPK	R	K	95.00%	2.22	0.298	0	1	0	0	2	1,420.65	307	319	TRUE	
SNU216_PC3_01	Isoform 1 of Cellular tumor antigen p53	IPI00025087	43,653.40	99.50%	2	2	2	0.01%	3.56%	RALPNNTSSSPQPK	K	K	90.10%	2.05	0.243	0	1	0	0	2	1,576.75	306	319	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	7	0.04%	5.05%	DHSPTPSVFNSDEER	R	Y	95.00%	2.98	0.447	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216_PC3_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	7	0.04%	5.05%	DHSPTPSVFNSDEERYR	R	Y	95.00%	3.17	0.146	0	1	0	0	2	2,195.84	490	506	TRUE	
SNU216_PC3_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	7	0.04%	5.05%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.78	0.32	0	1	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC3_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	7	0.04%	5.05%	RHESEEGDSHR	R	R	95.00%	2.08	0.293	0	0	1	0	2	1,418.54	551	561	TRUE	
SNU216_PC3_01	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	AGGSPASYHGSTSPR	K	V	95.00%	2.83	0.42	0	1	0	0	2	1,591.59	189	203	TRUE	
SNU216_PC3_01	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	GSSQPNLSTSHSEQEYGK	R	A	95.00%	2.89	0.303	0	0	1	0	2	2,015.83	171	188	TRUE	
SNU216_PC3_01	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	HQTLEVSLSRDSPLK	K	T	95.00%	3.47	0.206	0	0	1	0	2	1,789.88	358	372	TRUE	
SNU216_PC3_01	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	4.61	0.433	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216_PC3_01	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	5.33	0.438	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	APAPLGTVADSLRASDSGQLQAK	K	A	95.00%	4.4	0.47	0	0	1	0	2	2,246.12	187	208	TRUE	
SNU216_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	KWSNSQPADLAHMGR	R	S	95.00%	3.94	0.414	0	0	1	0	2	1,777.78	143	157	TRUE	
SNU216_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	SFSEDTLMDGPAR	R	I	95.00%	2.82	0.444	0	1	0	0	2	1,505.60	123	135	TRUE	
SNU216_PC3_01	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	TSSDPVLLK	R	A	90.00%	1.61	0.137	1	0	0	0	2	1,039.51	178	186	TRUE	
SNU216_PC3_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	4	0.03%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.26	0.379	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC3_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	4	0.03%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.79	0.39	0	2	0	0	2	1,976.72	495	510	TRUE	
SNU216_PC3_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	4	0.03%	1.79%	RKAEDSDSEPEPEDNVR	K	L	80.30%	2.29	0.18	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216_PC3_01	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.80%	2	3	3	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.82	0.345	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216_PC3_01	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.80%	2	3	3	0.02%	10.10%	RSPSPYYSR	R	D	95.00%	2.3	0.219	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216_PC3_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	2	2	2	0.01%	1.79%	DSSFTEVPRSPK	R	H	95.00%	3.26	0.404	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216_PC3_01	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	2	2	2	0.01%	1.79%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.94	0.455	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase RIO2	IPI00306406	63,309.70	99.80%	2	2	2	0.01%	4.89%	AEVYGSENESER	K	N	95.00%	2.19	0.413	0	1	0	0	2	1,449.55	345	356	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase RIO2	IPI00306406	63,309.70	99.80%	2	2	2	0.01%	4.89%	EGSEFSFSDGEVAEK	K	A	95.00%	2.69	0.368	0	1	0	0	2	1,697.66	330	344	TRUE	
SNU216_PC3_01	Calmin	IPI00101942	111,652.50	100.00%	3	3	3	0.02%	6.49%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	4.19	0.229	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216_PC3_01	Calmin	IPI00101942	111,652.50	100.00%	3	3	3	0.02%	6.49%	HDEESHSLSPPGENTVMADSFQIK	R	V	95.00%	3.69	0.313	0	0	1	0	2	2,735.17	518	541	TRUE	
SNU216_PC3_01	Calmin	IPI00101942	111,652.50	100.00%	3	3	3	0.02%	6.49%	TSDISEPSPESSILSSR	K	K	95.00%	2.68	0.347	0	1	0	0	2	1,871.83	395	411	TRUE	
SNU216_PC3_01	Lamin-B1	IPI00217975	66,278.40	100.00%	3	3	3	0.02%	9.23%	AGGPTTPLSPTR	R	L	95.00%	2.3	0.267	0	1	0	0	2	1,234.58	14	25	TRUE	
SNU216_PC3_01	Lamin-B1	IPI00217975	66,278.40	100.00%	3	3	3	0.02%	9.23%	LALDMEISAYRK	K	L	84.80%	1.89	0.213	0	1	0	0	2	1,489.71	367	378	TRUE	
SNU216_PC3_01	Lamin-B1	IPI00217975	66,278.40	100.00%	3	3	3	0.02%	9.23%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	4.29	0.394	0	0	1	0	2	3,491.54	547	576	TRUE	
SNU216_PC3_01	DNA polymerase alpha subunit B	IPI00290272	65,948.80	100.00%	2	3	3	0.02%	4.18%	SPHQLLSPSSFSPSATPSQK	R	Y	95.00%	4.39	0.387	0	1	1	0	2	2,163.01	141	160	TRUE	
SNU216_PC3_01	DNA polymerase alpha subunit B	IPI00290272	65,948.80	100.00%	2	3	3	0.02%	4.18%	SVSTRSPHQLLSPSSFSPSATPSQK	R	Y	95.00%	4.57	0.313	0	0	1	0	2	2,693.29	136	160	TRUE	
SNU216_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.51	0.363	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.41	0.392	0	3	1	0	2	2,268.82	552	570	TRUE	
SNU216_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.89	0.392	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216_PC3_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.14	0.411	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC3_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	1	1	1	0.01%	4.62%	VMIYQDEVKLPAKLSISK	K	S	95.00%	2.91	0.215	0	0	1	0	2	2,142.13	153	170	TRUE	
SNU216_PC3_01	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	2	2	0.01%	3.70%	KARVGGSDEEASGIPSR	K	T	95.00%	2.99	0.208	0	1	0	0	2	1,795.83	353	369	TRUE	
SNU216_PC3_01	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	2	2	0.01%	3.70%	VGGSDEEASGIPSR	R	T	95.00%	2.83	0.432	0	1	0	0	2	1,440.60	356	369	TRUE	
SNU216_PC3_01	CTP synthase	IPI00290142	66,690.70	100.00%	1	1	1	0.01%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	95.00%	3.9	0.0528	0	1	0	0	2	2,327.01	571	591	TRUE	
SNU216_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	5	6	6	0.04%	15.10%	GTEAPAVVTEEEDDDEETAPPVIAPRPDHTK	K	S	95.00%	6.14	0.467	0	0	1	1	2	3,395.52	161	191	TRUE	
SNU216_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	5	6	6	0.04%	15.10%	QKYLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.14	0.263	0	0	1	0	2	2,673.30	137	160	TRUE	
SNU216_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	5	6	6	0.04%	15.10%	SVIDPVPAPVGDSHVDGAAKSLDK	R	Q	95.00%	3.29	0.237	0	0	1	0	2	2,454.19	197	220	TRUE	
SNU216_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	5	6	6	0.04%	15.10%	YLSFTPPEK	K	D	92.00%	1.74	0.251	0	1	0	0	2	1,161.52	139	147	TRUE	
SNU216_PC3_01	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	5	6	6	0.04%	15.10%	YLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.56	0.359	0	1	0	0	2	2,417.14	139	160	TRUE	
SNU216_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	5	5	5	0.03%	8.55%	EAEDSDSDDNIKR	K	G	95.00%	2.22	0.235	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	5	5	5	0.03%	8.55%	GPASDSETEDASR	K	H	95.00%	1.73	0.367	0	1	0	0	2	1,481.48	310	322	TRUE	
SNU216_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	5	5	5	0.03%	8.55%	HQASDSENEELPKPR	R	I	95.00%	2.23	0.312	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	5	5	5	0.03%	8.55%	HQASDSENEEPPKPR	R	M	95.00%	2.59	0.568	0	1	0	0	2	1,880.72	193	207	TRUE	
SNU216_PC3_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	5	5	5	0.03%	8.55%	MDSDEDEKEGEEEK	K	V	95.00%	3.16	0.405	0	1	0	0	2	1,749.60	375	388	TRUE	
SNU216_PC3_01	protein kinase, AMP-activated, alpha 1 catalytic su	IPI00011891,IPI00410287	65,524.40	100.00%	2	3	3	0.02%	7.69%	DFYLATSPPDSFLDDHHLTRPHPER	K	V	95.00%	4.16	0.415	0	0	1	1	2	3,043.37	365	389	TRUE	
SNU216_PC3_01	protein kinase, AMP-activated, alpha 1 catalytic su	IPI00011891,IPI00410287	65,524.40	100.00%	2	3	3	0.02%	7.69%	SIDDEITEAKSGTATPQR	R	S	95.00%	3.11	0.422	0	1	0	0	2	1,998.90	491	508	TRUE	
SNU216_PC3_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	3	4	4	0.03%	6.89%	GLMAGGRPEGQYSEDEDTDTDEYK	R	E	95.00%	2.39	0.294	0	0	1	0	2	2,743.07	430	453	TRUE	
SNU216_PC3_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	3	4	4	0.03%	6.89%	GLMAGGRPEGQYSEDEDTDTDEYKEAK	R	A	95.00%	6.51	0.114	0	1	1	0	2	3,071.25	430	456	TRUE	
SNU216_PC3_01	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	3	4	4	0.03%	6.89%	VIQPMGMSPR	R	G	84.30%	1.99	0.177	0	1	0	0	2	1,195.54	501	510	TRUE	
SNU216_PC3_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	4	4	4	0.03%	3.84%	ASEDTTSGSPPK	R	K	95.00%	2.04	0.244	0	1	0	0	2	1,256.50	456	467	TRUE	
SNU216_PC3_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	4	4	4	0.03%	3.84%	ASEDTTSGSPPKK	R	S	95.00%	2.62	0.448	0	1	0	0	2	1,384.60	456	468	TRUE	
SNU216_PC3_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	4	4	4	0.03%	3.84%	ASEDTTSGSPPKKSSAGPK	R	R	86.30%	2.71	0.211	0	0	1	0	2	1,911.87	456	474	TRUE	
SNU216_PC3_01	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	100.00%	4	4	4	0.03%	3.84%	RASEDTTSGSPPKK	K	S	95.00%	3.05	0.332	0	0	1	0	2	1,540.70	455	468	TRUE	
SNU216_PC3_01	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	100.00%	2	3	3	0.02%	3.24%	EGRGESENAGTNQETR	R	S	95.00%	2.71	0.298	0	1	1	0	2	1,814.73	426	441	TRUE	
SNU216_PC3_01	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	100.00%	2	3	3	0.02%	3.24%	GESENAGTNQETR	R	S	95.00%	2.64	0.392	0	1	0	0	2	1,472.57	429	441	TRUE	
SNU216_PC3_01	Bifunctional coenzyme A synthase	IPI00184821	62,329.50	100.00%	1	1	1	0.01%	6.91%	LASVLLYSDYGIGEVPVEPLDVPLPSTIRPASF	R	Q	95.00%	8.59	0.0552	0	0	1	0	2	4,084.13	147	185	TRUE	
SNU216_PC3_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	17.50%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.78	0.501	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216_PC3_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	17.50%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	79.80%	6.12	0.0081	0	0	1	0	2	3,553.49	264	296	TRUE	
SNU216_PC3_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	17.50%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	94.90%	7.73	0.0105	0	0	1	0	2	3,066.27	16	41	TRUE	
SNU216_PC3_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	6	0.04%	8.51%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.16	0.557	0	1	3	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC3_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	6	0.04%	8.51%	QNGSNDSDRYSDNEEGK	R	K	95.00%	2.71	0.252	0	1	0	0	2	1,994.74	173	189	TRUE	
SNU216_PC3_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	6	0.04%	8.51%	SSTPLPTISSSAENTR	R	Q	91.40%	2.44	0.167	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216_PC3_01	Negative elongation factor B	IPI00103483	65,699.50	99.80%	1	2	2	0.01%	4.48%	KPSPAQAAETPALELPLPSVPAPAPL	R	-	95.00%	5.11	0.579	0	1	1	0	2	2,642.38	555	580	TRUE	
SNU216_PC3_01	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	2	2	3	0.02%	12.40%	GGGGDMAEPSEAGDAPPDDGPPGELGPDC	R	G	95.00%	5.52	0.564	0	0	2	0	2	3,469.35	311	346	TRUE	
SNU216_PC3_01	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	2	2	3	0.02%	12.40%	GGGGGQDNGLEGLGNDSR	R	D	95.00%	4.59	0.225	0	1	0	0	2	1,739.70	394	411	TRUE	
SNU216_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	7	7	7	0.04%	10.40%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	4.09	0.502	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	7	7	7	0.04%	10.40%	RSPVSTRPLPSASQK	R	A	95.00%	2.59	0.374	0	1	0	0	2	1,690.86	215	229	TRUE	
SNU216_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	7	7	7	0.04%	10.40%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	4.01	0.53	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	7	7	7	0.04%	10.40%	SPVSTRPLPSASQK	R	A	95.00%	2.98	0.268	0	1	0	0	2	1,534.76	216	229	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	7	7	7	0.04%	10.40%	SSPQLDPLR	R	K	95.00%	2.08	0.374	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	7	7	7	0.04%	10.40%	SSPQLDPLRK	R	S	81.90%	1.76	0.247	0	1	0	0	2	1,220.60	182	191	TRUE	
SNU216_PC3_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	7	7	7	0.04%	10.40%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	4.84	0.389	0	0	0	1	2	3,491.75	182	214	TRUE	
SNU216_PC3_01	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSSLTNDVAK	K	Q	95.00%	5.27	0.191	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216_PC3_01	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	3.5	0.449	0	1	0	0	2	1,896.90	850	867	TRUE	
SNU216_PC3_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	3	3	0.02%	12.10%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	7.69	0.0069	0	0	1	1	2	3,993.83	51	90	TRUE	
SNU216_PC3_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	3	3	0.02%	12.10%	TVQSLEIDLDSMR	R	N	95.00%	2.63	0.287	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216_PC3_01	pyruvate kinase 3 isoform 1	IPI00479186	57,937.50	100.00%	1	1	1	0.01%	2.07%	LDIDSPPITAR	R	N	95.00%	2.3	0.223	0	1	0	0	2	1,277.61	33	43	TRUE	
SNU216_PC3_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.80%	2	2	2	0.01%	5.58%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	4.9	0.329	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216_PC3_01	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.80%	2	2	2	0.01%	5.58%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.86	0.534	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216_PC3_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	14.00%	AHAWPSPYKDYEVK	R	K	95.00%	3.21	0.365	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216_PC3_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	14.00%	AHAWPSPYKDYEVKK	R	E	95.00%	3.03	0.241	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216_PC3_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	14.00%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNQ	R	E	95.00%	3.73	0.208	0	0	0	1	2	4,125.84	299	333	TRUE	
SNU216_PC3_01	Sphingosine-1-phosphate lyase 1	IPI00099463	63,525.90	100.00%	1	2	3	0.02%	5.81%	NMVAELSSVFLDSLYSTDTVTQGSQMNGSI	R	-	95.00%	4.02	0.229	0	0	2	1	2	3,620.63	536	568	TRUE	
SNU216_PC3_01	Protein C19orf21	IPI00217121	75,355.70	99.50%	2	2	2	0.01%	4.12%	ALSSDSILSPAPDAR	R	A	95.00%	3.04	0.482	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216_PC3_01	Protein C19orf21	IPI00217121	75,355.70	99.50%	2	2	2	0.01%	4.12%	HLSESSGKPLSTK	R	Q	89.30%	1.97	0.295	0	1	0	0	2	1,450.69	469	481	TRUE	
SNU216_PC3_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	4.36%	SLDMDSIIAEVK	R	A	95.00%	2.78	0.186	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216_PC3_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	4.36%	SYTSGPGSR	R	I	95.00%	1.38	0.414	1	0	0	0	2	991.3881	23	31	TRUE	
SNU216_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	7	7	8	0.05%	14.30%	DYDEEEQGYDSEKEK	R	K	95.00%	3.58	0.325	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	7	7	8	0.05%	14.30%	DYDEEEQGYDSEKEKK	R	E	92.20%	2.52	0.161	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	7	7	8	0.05%	14.30%	EEKKPIETGSPK	K	T	95.00%	2.47	0.275	0	1	0	0	2	1,422.69	380	391	TRUE	
SNU216_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	7	7	8	0.05%	14.30%	ESKVNGDDHHEEDMDMSD	R	-	92.60%	2.01	0.28	0	1	0	0	2	2,185.73	407	424	TRUE	
SNU216_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	7	7	8	0.05%	14.30%	KLSRSPSPR	R	R	86.30%	1.55	0.3	0	1	0	0	2	1,267.50	304	312	TRUE	
SNU216_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	7	7	8	0.05%	14.30%	LNHVAAGLVSPSLK	K	S	95.00%	2.84	0.373	0	1	0	0	2	1,485.78	138	151	TRUE	
SNU216_PC3_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	7	7	8	0.05%	14.30%	VNGDDHHEEDMDMSD	K	-	95.00%	2.68	0.56	0	2	0	0	2	1,825.57	410	424	TRUE	
SNU216_PC3_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	1	2	2	0.01%	2.42%	RGSIGENQIKDEK	K	I	95.00%	4.06	0.233	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC3_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.80%	2	2	2	0.01%	3.31%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	4.49	0.463	0	0	1	0	2	2,798.45	152	176	TRUE	
SNU216_PC3_01	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.80%	2	2	2	0.01%	3.31%	SSADKIGEVSSPK	K	A	95.00%	2.39	0.237	0	1	0	0	2	1,384.64	302	314	TRUE	
SNU216_PC3_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	99.80%	1	1	1	0.01%	1.82%	DYSEADGLSERTTPSK	K	A	95.00%	3	0.342	0	1	0	0	2	1,835.77	67	82	TRUE	
SNU216_PC3_01	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	1	1	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	81.60%	2.96	0.155	0	0	0	1	2	2,531.23	30	50	TRUE	
SNU216_PC3_01	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	1	1	4	0.03%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.54	0.5	0	4	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC3_01	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	5	5	0.03%	7.71%	KTNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	3.94	0.441	0	0	0	1	2	2,525.28	405	427	TRUE	
SNU216_PC3_01	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	5	5	0.03%	7.71%	SASDNTLVAMDFSGHAGR	R	V	95.00%	4.06	0.507	0	1	1	0	2	1,915.80	366	383	TRUE	
SNU216_PC3_01	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	5	5	0.03%	7.71%	TNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.68	0.328	0	0	1	1	2	2,397.19	406	427	TRUE	
SNU216_PC3_01	Phosphatidylserine synthase 1	IPI00010746	55,529.10	99.80%	2	4	4	0.03%	4.65%	GSEDSPPKHAGNNESHSSR	K	R	95.00%	3.93	0.392	0	1	1	1	2	2,072.84	438	456	TRUE	
SNU216_PC3_01	Phosphatidylserine synthase 1	IPI00010746	55,529.10	99.80%	2	4	4	0.03%	4.65%	GTKGSEDSPPKHAGNNESHSSR	K	R	95.00%	3.83	0.41	0	0	0	1	2	2,359.01	435	456	TRUE	
SNU216_PC3_01	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	99.80%	1	1	1	0.01%	1.13%	GAGGSPVGVEEGLVNVGTGQK	K	L	95.00%	3.69	0.462	0	1	0	0	2	1,991.94	1321	1341	TRUE	
SNU216_PC3_01	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	5	5	5	0.03%	5.31%	EPEAASSRGSPVR	R	V	95.00%	2.43	0.223	0	1	0	0	2	1,422.64	37	49	TRUE	
SNU216_PC3_01	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	5	5	5	0.03%	5.31%	EREPEAASSRGSPVR	R	V	95.00%	3.04	0.191	0	0	1	0	2	1,707.78	35	49	TRUE	
SNU216_PC3_01	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	5	5	5	0.03%	5.31%	EREVDEDSEPER	R	E	95.00%	2.29	0.273	0	0	1	0	2	1,569.61	75	86	TRUE	
SNU216_PC3_01	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	5	5	5	0.03%	5.31%	EREVDEDSEPEREVR	R	A	95.00%	2.57	0.314	0	1	0	0	2	1,953.82	75	89	TRUE	
SNU216_PC3_01	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	5	5	5	0.03%	5.31%	EVDEDSEPER	R	E	91.00%	1.67	0.287	0	1	0	0	2	1,284.46	77	86	TRUE	
SNU216_PC3_01	69 kDa protein	IPI00172590,IPI00658145	69,317.70	99.80%	1	1	1	0.01%	2.17%	GSPNTASAEATLPR	R	W	95.00%	2.64	0.5	0	1	0	0	2	1,451.65	566	579	TRUE	
SNU216_PC3_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	EGHGSSSFDRELER	R	E	95.00%	2.85	0.377	0	1	0	0	2	1,685.69	173	186	TRUE	
SNU216_PC3_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	RRSQSIEQESQEK	R	Q	95.00%	4.03	0.347	0	2	1	0	2	1,684.77	414	426	TRUE	
SNU216_PC3_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	RSQSIEQESQEK	R	Q	95.00%	3.2	0.207	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216_PC3_01	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	4	5	7	0.04%	4.95%	SQSIEQESQEK	R	Q	95.00%	2.3	0.339	0	2	0	0	2	1,372.56	416	426	TRUE	
SNU216_PC3_01	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	5	6	7	0.04%	14.20%	EESLVEELSPASEK	R	K	95.00%	3.02	0.391	0	2	0	0	2	1,626.71	418	431	TRUE	
SNU216_PC3_01	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	5	6	7	0.04%	14.20%	EESLVEELSPASEKKPVPPSEGK	R	S	95.00%	3.21	0.18	0	0	1	0	2	2,546.23	418	440	TRUE	
SNU216_PC3_01	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	5	6	7	0.04%	14.20%	EPDTEVITVEKSSPATSLFVELDEEEVK	R	A	95.00%	3.9	0.184	0	0	1	0	2	3,200.50	359	386	TRUE	
SNU216_PC3_01	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	5	6	7	0.04%	14.20%	SRLSPAGEMK	K	P	95.00%	2.14	0.219	0	1	0	0	2	1,155.52	441	450	TRUE	
SNU216_PC3_01	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	5	6	7	0.04%	14.20%	SRLSPAGEMKPMPLSEGK	K	S	95.00%	3.41	0.323	0	1	1	0	2	1,994.94	441	458	TRUE	
SNU216_PC3_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	3	3	3	0.02%	4.54%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	3.1	0.403	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216_PC3_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	3	3	3	0.02%	4.54%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.69	0.309	0	0	1	0	2	2,015.97	536	553	TRUE	
SNU216_PC3_01	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	3	3	3	0.02%	4.54%	KGSDDAPYSPTAR	R	V	95.00%	2.59	0.332	0	1	0	0	2	1,444.61	897	909	TRUE	
SNU216_PC3_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	3	3	0.02%	6.56%	ENHGQADHSPSMTATHFPR	R	V	95.00%	4.06	0.379	0	0	1	0	2	2,199.90	254	272	TRUE	
SNU216_PC3_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	3	3	0.02%	6.56%	SPPETAAPVEDMAR	R	R	95.00%	2.91	0.293	0	1	0	0	2	1,550.66	550	563	TRUE	
SNU216_PC3_01	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	3	3	0.02%	6.56%	TESEVPPRPASPK	R	V	95.00%	2.77	0.39	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216_PC3_01	Protein C9orf82	IPI00303812	38,368.80	99.70%	2	2	2	0.01%	10.50%	ILEGDNGMDSDMEEEADDGSK	K	M	95.00%	4.17	0.532	0	1	0	0	2	2,336.84	194	214	TRUE	
SNU216_PC3_01	Protein C9orf82	IPI00303812	38,368.80	99.70%	2	2	2	0.01%	10.50%	SVNEILGLAESSPNEPK	K	A	94.50%	3.26	0.132	0	1	0	0	2	1,863.87	301	317	TRUE	
SNU216_PC3_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	2	4	5	0.03%	3.46%	ERSPALKSPLQSVVVR	R	R	95.00%	3.3	0.383	0	1	2	0	2	1,925.96	246	261	TRUE	
SNU216_PC3_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	2	4	5	0.03%	3.46%	HGLAHDEMKSPREPGYK	K	A	91.40%	2.62	0.176	0	0	1	1	2	2,031.91	689	705	TRUE	
SNU216_PC3_01	Isoform 4 of Interleukin enhancer-binding factor	IPI00418313	95,808.40	100.00%	2	3	5	0.03%	1.56%	PMEEDGEEKSPSK	K	K	95.00%	2.6	0.408	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216_PC3_01	Isoform 4 of Interleukin enhancer-binding factor	IPI00418313	95,808.40	100.00%	2	3	5	0.03%	1.56%	RPMEEDGEEKSPSK	K	K	95.00%	4.28	0.503	0	2	2	0	2	1,698.70	372	385	TRUE	
SNU216_PC3_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.80%	2	2	2	0.01%	9.89%	APSPPVEHPR	R	L	95.00%	2.01	0.362	0	1	0	0	2	1,166.54	177	186	TRUE	
SNU216_PC3_01	Isoform 1 of Protein C10orf47	IPI00329115	45,802.60	99.80%	2	2	2	0.01%	9.89%	AQVLATIHGHAGAFPAAGDAGEGAPGGGS	R	V	95.00%	5.12	0.478	0	0	1	0	2	3,093.42	283	315	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp761F0123	IPI00028359	43,498.80	98.60%	1	1	1	0.01%	4.07%	GLSDHVSLDGQELGTR	R	S	95.00%	3.05	0.349	0	1	0	0	2	1,763.80	356	371	TRUE	
SNU216_PC3_01	heterogeneous nuclear ribonucleoprotein L isofor	IPI00027834	64,132.80	100.00%	1	1	1	0.01%	1.87%	ISRPGDSDDSR	K	S	95.00%	2.23	0.284	0	1	0	0	2	1,284.52	179	189	TRUE	
SNU216_PC3_01	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	10.80%	EREESEDELEEANGNNPIDIEVDQNK	R	E	95.00%	3.72	0.23	0	0	2	0	2	3,095.30	253	278	TRUE	
SNU216_PC3_01	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	10.80%	EREESEDELEEANGNNPIDIEVDQNKESK	R	K	95.00%	6.19	0.483	0	0	1	0	2	3,439.47	253	281	TRUE	
SNU216_PC3_01	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	10.80%	RSQERDNLGMLVWSPNQNLSEAK	R	L	95.00%	4.83	0.379	0	0	1	0	2	2,752.29	123	145	TRUE	
SNU216_PC3_01	REST corepressor 1	IPI00008531	53,028.00	100.00%	4	4	5	0.03%	10.80%	SQERDNLGMLVWSPNQNLSEAK	R	L	95.00%	3.97	0.271	0	0	1	0	2	2,596.19	124	145	TRUE	
SNU216_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	4	0.03%	4.75%	GEIKDSSPSSSPSPK	K	G	87.40%	3.27	0.0534	0	2	0	0	2	1,582.70	333	347	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	4	0.03%	4.75%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	94.90%	6.49	0.0319	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216_PC3_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	4	0.03%	4.75%	NNMTASMFDLSMKDK	R	S	95.00%	2.67	0.381	0	1	0	0	2	1,812.74	151	165	TRUE	
SNU216_PC3_01	palladin	IPI00292009	122,047.90	99.90%	2	2	2	0.01%	2.53%	GRSPRSPSGHPHVR	R	R	95.00%	2.85	0.355	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216_PC3_01	palladin	IPI00292009	122,047.90	99.90%	2	2	2	0.01%	2.53%	SRDSGDENEPIQER	R	F	95.00%	3.04	0.357	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216_PC3_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	4	4	0.03%	5.48%	RHSSDINHLVTQGR	R	E	95.00%	3.19	0.324	0	0	1	1	2	1,699.80	481	494	TRUE	
SNU216_PC3_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	4	4	0.03%	5.48%	TISDGTISASK	R	Q	95.00%	1.91	0.257	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216_PC3_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	4	4	0.03%	5.48%	TISDGTISASKQESGK	R	M	95.00%	2.52	0.354	0	1	0	0	2	1,688.77	293	308	TRUE	
SNU216_PC3_01	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	1	1	1	0.01%	3.21%	NVSSFPDDATSPLQENR	R	N	95.00%	4.02	0.547	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216_PC3_01	Probable ATP-dependent RNA helicase DDX41	IPI00007208	69,839.70	99.80%	2	2	2	0.01%	11.10%	ARTDEVPAGGSRSEAEDEDDEDYVPYVPLR	R	Q	95.00%	5.52	0.509	0	0	1	0	2	3,417.48	11	40	TRUE	
SNU216_PC3_01	Probable ATP-dependent RNA helicase DDX41	IPI00007208	69,839.70	99.80%	2	2	2	0.01%	11.10%	GAAEEEQQDSGSEPRGDEDDIPLGPQSNV	K	E	95.00%	5.94	0.504	0	0	0	1	2	4,305.92	57	95	TRUE	
SNU216_PC3_01	Heat shock protein 60	IPI00472102	61,213.90	100.00%	1	1	1	0.01%	2.09%	TVIIEQSWGSPK	R	V	95.00%	3.56	0.372	0	1	0	0	2	1,424.68	61	72	TRUE	
SNU216_PC3_01	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	100.00%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTR	R	E	95.00%	5.93	0.497	0	0	1	1	2	3,277.58	156	183	TRUE	
SNU216_PC3_01	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	100.00%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTREQLD	R	I	95.00%	5.55	0.564	0	0	0	1	2	4,062.95	156	190	TRUE	
SNU216_PC3_01	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	3	3	3	0.02%	3.06%	LQAKESPQR	R	K	95.00%	2.02	0.326	0	1	0	0	2	1,136.55	72	80	TRUE	
SNU216_PC3_01	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	3	3	3	0.02%	3.06%	RKSGGNEVSIEER	K	L	95.00%	3.35	0.296	0	0	1	0	2	1,540.71	429	441	TRUE	
SNU216_PC3_01	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	3	3	3	0.02%	3.06%	SGGNEVSIEER	K	L	95.00%	2.12	0.373	0	1	0	0	2	1,256.52	431	441	TRUE	
SNU216_PC3_01	Isoform 1 of Zinc finger CCCH type antiviral prot	IPI00410067,IPI00410071	101,445.60	99.80%	1	1	1	0.01%	1.44%	ASLEDAPVDDLTR	R	K	95.00%	2.07	0.325	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216_PC3_01	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	4	6	0.04%	11.30%	GHTDTEGRPPSPPPTSTPEK	R	C	95.00%	4.61	0.11	0	1	0	0	2	2,167.97	353	372	TRUE	
SNU216_PC3_01	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	4	6	0.04%	11.30%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	87.60%	2.81	0.105	0	1	0	0	2	2,903.48	310	336	TRUE	
SNU216_PC3_01	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	4	6	0.04%	11.30%	VKEEPPSPPQSPR	R	V	95.00%	3.15	0.367	0	3	1	0	2	1,527.72	297	309	TRUE	
SNU216_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	6	6	0.04%	8.27%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	4.88	0.374	0	0	1	0	2	2,373.03	234	253	TRUE	
SNU216_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	6	6	0.04%	8.27%	DNSPEPNDPEEPQEVSSTPSDK	R	K	95.00%	4.2	0.432	0	1	0	0	2	2,477.98	254	275	TRUE	
SNU216_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	6	6	0.04%	8.27%	DNSPEPNDPEEPQEVSSTPSDKK	R	G	95.00%	4.35	0.433	0	0	1	0	2	2,606.08	254	276	TRUE	
SNU216_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	6	6	0.04%	8.27%	RVTQGAASPGHGIQEK	R	L	95.00%	3.53	0.399	0	1	1	0	2	1,715.82	373	388	TRUE	
SNU216_PC3_01	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	5	6	6	0.04%	8.27%	VTQGAASPGHGIQEK	R	L	95.00%	2.29	0.251	0	1	0	0	2	1,559.72	374	388	TRUE	
SNU216_PC3_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	3	3	3	0.02%	5.30%	DISMEIDSPENMMR	R	H	95.00%	2.47	0.242	0	1	0	0	2	1,747.67	247	260	TRUE	
SNU216_PC3_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	3	3	3	0.02%	5.30%	ILQEKLDQPVSAPPSPR	R	D	95.00%	3.08	0.348	0	1	0	0	2	2,034.97	230	246	TRUE	
SNU216_PC3_01	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	3	3	3	0.02%	5.30%	LDQPVSAPPSPR	K	D	95.00%	2.5	0.316	0	1	0	0	2	1,423.60	235	246	TRUE	
SNU216_PC3_01	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	3	0.02%	4.81%	GLGPPSPPAPPR	R	G	91.40%	1.83	0.249	0	1	0	0	2	1,222.60	90	101	TRUE	
SNU216_PC3_01	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	3	0.02%	4.81%	GPAGEAGASPPVR	R	R	95.00%	2.04	0.282	0	1	0	0	2	1,245.56	102	114	TRUE	
SNU216_PC3_01	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	3	3	3	0.02%	4.81%	GPAGEAGASPPVRR	R	V	95.00%	2.49	0.31	0	1	0	0	2	1,401.66	102	115	TRUE	
SNU216_PC3_01	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	2	2	2	0.01%	3.22%	LPEASQSPLVLK	R	Q	95.00%	2.17	0.261	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216_PC3_01	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	2	2	2	0.01%	3.22%	SNMSPHGLPAR	R	S	91.80%	1.76	0.26	0	1	0	0	2	1,246.54	446	456	TRUE	
SNU216_PC3_01	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	1	1	1	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.36	0.305	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216_PC3_01	Tissue factor precursor	IPI00010338	33,067.30	99.80%	1	1	1	0.01%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	2.27	0.312	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216_PC3_01	Tumor-associated calcium signal transducer 2 pre	IPI00297910	35,709.80	100.00%	1	1	1	0.01%	3.41%	ELGELRKEPSL	K	-	95.00%	2.51	0.183	0	1	0	0	2	1,350.67	313	323	TRUE	
SNU216_PC3_01	Isoform 1 of Cisplatin resistance-associated overe	IPI00107745	51,467.10	100.00%	1	2	2	0.01%	5.56%	ESDTKNEVNGTSEDIKSEGDTQSN	K	-	95.00%	4.63	0.261	0	1	1	0	2	2,664.08	409	432	TRUE	
SNU216_PC3_01	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	3	3	3	0.02%	18.00%	EHPTVVPSHKSPVLDTKPK	R	E	95.00%	2.8	0.257	0	0	1	0	2	2,176.12	454	472	TRUE	
SNU216_PC3_01	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	3	3	3	0.02%	18.00%	ESSTESSQSAKPVSGQDTSGNTEGSPAAEK	K	A	95.00%	6.22	0.101	0	0	1	0	2	3,033.28	485	514	TRUE	
SNU216_PC3_01	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	100.00%	3	3	3	0.02%	18.00%	SEAAGSPDQGSTYSPAR	K	G	95.00%	2.36	0.249	0	1	0	0	2	1,840.68	519	535	TRUE	
SNU216_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	KTEMDKSPFNSPSPQDSPR	K	L	95.00%	5.28	0.461	0	0	1	0	2	2,227.97	327	345	TRUE	
SNU216_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	NWTEDMEGGISSPVK	R	K	95.00%	2.48	0.239	0	1	0	0	2	1,729.71	312	326	TRUE	
SNU216_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	3.28	0.353	0	2	1	0	2	1,857.81	312	327	TRUE	
SNU216_PC3_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	4	6	7	0.04%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.02	0.49	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216_PC3_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	3	5	6	0.04%	3.70%	DNSPPPAFKPEPPK	R	A	84.20%	1.86	0.226	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC3_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	3	5	6	0.04%	3.70%	ERPSSREDTPSR	K	L	95.00%	2.11	0.335	0	2	1	0	2	1,496.65	437	448	TRUE	
SNU216_PC3_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	3	5	6	0.04%	3.70%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.57	0.498	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216_PC3_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	4	0.03%	6.01%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.6	0.533	0	2	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC3_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	4	0.03%	6.01%	SSSPAPADIAQTVQEDLRTFSWASVTSK	K	N	95.00%	4.82	0.472	0	0	1	0	2	3,059.44	230	257	TRUE	
SNU216_PC3_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	2	3	3	0.02%	1.75%	KRVSVELTNSLFK	R	H	95.00%	3.35	0.39	0	1	1	0	2	1,600.85	660	672	TRUE	
SNU216_PC3_01	Junction plakoglobin	IPI00554711	81,499.50	100.00%	2	3	3	0.02%	1.75%	RVSVELTNSLFK	K	H	95.00%	3.78	0.326	0	1	0	0	2	1,472.75	661	672	TRUE	
SNU216_PC3_01	hypothetical protein LOC84081 isoform 1	IPI00030274	66,390.60	99.80%	1	2	2	0.01%	5.91%	KTQQLHPVLQKPSVFGNDSDDDDETSVSES	K	E	95.00%	6.66	0.0613	0	0	1	1	2	3,779.74	15	47	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	7	0.04%	9.98%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.98	0.556	0	2	3	0	2	2,586.99	308	328	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	7	0.04%	9.98%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	6.57	0.504	0	0	0	1	2	3,394.35	302	328	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	7	0.04%	9.98%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.4	0.374	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216_PC3_01	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	2	3	3	0.02%	6.49%	ASGEMASAQYITAALR	R	D	95.00%	3.21	0.448	0	1	0	0	2	1,719.78	107	122	TRUE	
SNU216_PC3_01	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	2	3	3	0.02%	6.49%	VNQQPNTSDKKSSPQK	K	E	95.00%	3.83	0.397	0	1	1	0	2	1,865.88	347	362	TRUE	
SNU216_PC3_01	Isoform 1 of Poly [ADP-ribose] polymerase 2	IPI00026497,IPI00220995	66,207.80	99.70%	2	3	3	0.02%	2.92%	RVNNGNTAPEDSSPAKK	K	T	94.40%	2.84	0.195	0	1	1	0	2	1,864.86	22	38	TRUE	
SNU216_PC3_01	Isoform 1 of Poly [ADP-ribose] polymerase 2	IPI00026497,IPI00220995	66,207.80	99.70%	2	3	3	0.02%	2.92%	VNNGNTAPEDSSPAKK	R	T	95.00%	3.55	0.388	0	1	0	0	2	1,708.75	23	38	TRUE	
SNU216_PC3_01	exosome component 9 isoform 1	IPI00029697,IPI00607722,IP	39,235.30	99.80%	2	2	2	0.01%	3.07%	APIDTSDVEEK	K	A	95.00%	2.33	0.289	0	1	0	0	2	1,283.54	217	227	TRUE	
SNU216_PC3_01	exosome component 9 isoform 1	IPI00029697,IPI00607722,IP	39,235.30	99.80%	2	2	2	0.01%	3.07%	MEKAPIDTSDVEEK	K	A	95.00%	3.44	0.276	0	1	0	0	2	1,671.72	214	227	TRUE	
SNU216_PC3_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	4	4	0.03%	6.95%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	6.13	0.526	0	0	1	1	2	3,188.48	642	669	TRUE	
SNU216_PC3_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	4	4	0.03%	6.95%	RSDSASSEPVGIYQGFEKK	R	T	95.00%	2.68	0.196	0	0	1	0	2	2,164.99	301	319	TRUE	
SNU216_PC3_01	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	3	4	4	0.03%	6.95%	SDSASSEPVGIYQGFEK	R	K	95.00%	3.42	0.393	0	1	0	0	2	1,880.80	302	318	TRUE	
SNU216_PC3_01	Isoform 1 of Wilms' tumor 1-associating protein	IPI00220302	44,243.40	99.30%	2	2	2	0.01%	6.57%	EGNTTEDDFPSSPGNGNK	R	S	95.00%	3.97	0.389	0	1	0	0	2	1,945.75	295	312	TRUE	
SNU216_PC3_01	Isoform 1 of Wilms' tumor 1-associating protein	IPI00220302	44,243.40	99.30%	2	2	2	0.01%	6.57%	EGNTTEDDFPSSPGNGNKSSNSSEER	R	T	85.90%	2.88	0.189	0	0	1	0	2	2,822.10	295	320	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	DLPAQRGEESSEEEEKGYK	R	G	95.00%	2.33	0.356	0	1	0	0	2	2,340.93	150	168	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	EESEESEAEPVQR	R	T	95.00%	2.7	0.281	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	ESEQESEEEILAQKK	K	E	95.00%	3.59	0.304	0	1	0	0	2	1,856.82	222	236	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	EVSDSEAGGGPQGER	R	K	95.00%	3.39	0.522	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	EVSDSEAGGGPQGERK	R	N	95.00%	2.96	0.449	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	GEESSEEEEKGYK	R	G	93.70%	1.84	0.265	0	1	0	0	2	1,660.57	156	168	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	KQAREESEESEAEPVQR	R	T	95.00%	2.85	0.359	0	2	0	0	2	2,081.91	190	206	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	LSGSSEDEEDSGKGEPTAK	R	G	95.00%	2.72	0.451	0	1	0	0	2	2,082.78	329	347	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	NGVAAEVSPAKEENPR	K	R	95.00%	2.82	0.356	0	1	0	0	2	1,747.80	118	133	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	QAREESEESEAEPVQR	K	T	95.00%	2.72	0.315	0	2	0	0	2	2,033.78	191	206	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	RLSGSSEDEEDSGKGEPTAK	K	G	95.00%	2	0.305	0	1	0	0	2	2,238.88	328	347	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	SLKESEQESEEEILAQKK	K	E	95.00%	3.16	0.325	0	1	1	0	2	2,185.03	219	236	TRUE	
SNU216_PC3_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	13	14	16	0.10%	22.70%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.97	0.217	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC3_01	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	100.00%	2	2	2	0.01%	3.99%	KVTFFEPGSGDENGTSNKEDEFR	R	M	95.00%	3.61	0.234	0	0	1	0	2	2,670.14	301	323	TRUE	
SNU216_PC3_01	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	100.00%	2	2	2	0.01%	3.99%	VTFFEPGSGDENGTSNKEDEFR	K	M	95.00%	4.09	0.403	0	0	1	0	2	2,542.04	302	323	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	DKEVSDDEAEEK	R	E	95.00%	2.49	0.244	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	DKEVSDDEAEEKEDK	R	E	95.00%	4.02	0.415	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	ERDKEVSDDEAEEK	K	E	95.00%	3.24	0.29	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.27	0.454	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	7	7	0.04%	4.33%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.67	0.442	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216_PC3_01	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	99.80%	1	1	1	0.01%	2.46%	TNTMNGSKSPVISR	R	P	95.00%	2.81	0.236	0	1	0	0	2	1,571.72	747	760	TRUE	
SNU216_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	DFQEYVEPGEDFPASPQR	R	R	95.00%	4.5	0.512	0	2	0	0	2	2,190.90	193	210	TRUE	
SNU216_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	DFQEYVEPGEDFPASPQRR	R	N	95.00%	3.27	0.303	0	1	1	0	2	2,347.00	193	211	TRUE	
SNU216_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	KPVTVSPTTPTSPTEGEAS	R	-	95.00%	3.8	0.0762	0	1	0	0	2	1,965.91	505	523	TRUE	
SNU216_PC3_01	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	SVSSNVASVSPIPAGSKK	R	I	95.00%	2.82	0.264	0	1	0	0	2	1,794.90	412	429	TRUE	
SNU216_PC3_01	Non-POU domain-containing octamer-binding pr	IPI00304596	54,231.60	100.00%	1	1	1	0.01%	4.67%	FGQAATMEGIGAIGGTPPAFNR	R	A	95.00%	3.13	0.273	0	0	1	0	2	2,243.03	435	456	TRUE	
SNU216_PC3_01	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	1	1	1	0.01%	2.60%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.94	0.354	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp686J17211	IPI00740155	47,604.70	99.80%	2	3	3	0.02%	6.05%	ESSPKKEETVAR	R	C	95.00%	2.35	0.388	0	1	0	0	2	1,440.67	247	258	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp686J17211	IPI00740155	47,604.70	99.80%	2	3	3	0.02%	6.05%	LSTPQKGPSTHPK	R	E	95.00%	3.03	0.408	0	1	1	0	2	1,457.72	199	211	TRUE	
SNU216_PC3_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	3	3	3	0.02%	5.61%	DRSSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.29	0.301	0	0	1	0	2	2,755.34	361	384	TRUE	
SNU216_PC3_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	3	3	3	0.02%	5.61%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	4.9	0.524	0	1	0	0	2	2,253.98	444	462	TRUE	
SNU216_PC3_01	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	3	3	3	0.02%	5.61%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.92	0.299	0	0	1	0	2	2,484.21	363	384	TRUE	
SNU216_PC3_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	2	2	0.01%	3.86%	SKPIPIMPASPQK	K	G	95.00%	3.06	0.37	0	1	0	0	2	1,473.75	596	608	TRUE	
SNU216_PC3_01	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	2	2	0.01%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	5.28	0.653	0	0	1	0	2	3,011.63	596	623	TRUE	
SNU216_PC3_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.39	0.556	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216_PC3_01	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	YVDEENSDGETSNHR	K	L	95.00%	3.25	0.431	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216_PC3_01	MGRN1 protein	IPI00297251,IPI00643212	60,754.10	100.00%	2	2	2	0.01%	6.42%	ESSSPESFITEEVDESSSPQQGTR	R	A	95.00%	4.9	0.0355	0	1	0	0	2	2,693.11	489	512	TRUE	
SNU216_PC3_01	MGRN1 protein	IPI00297251,IPI00643212	60,754.10	100.00%	2	2	2	0.01%	6.42%	SPSSPIHEEDEEK	R	L	95.00%	2.27	0.388	0	1	0	0	2	1,563.62	457	469	TRUE	
SNU216_PC3_01	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	1	1	1	0.01%	5.04%	NHSDSSTSESEVSSVSPLKNK	K	H	95.00%	4.46	0.387	0	0	1	0	2	2,299.01	211	231	TRUE	
SNU216_PC3_01	Golgi resident protein GCP60	IPI00009315	60,461.50	99.50%	1	1	1	0.01%	4.55%	THTDSSEKELEPEAAEEALENGPK	K	E	90.60%	3.21	0.151	0	0	1	0	2	2,691.17	339	362	TRUE	
SNU216_PC3_01	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	3	3	0.02%	6.46%	DRSSPPPGYIPDELHQVAR	R	N	95.00%	5.2	0.511	0	1	1	0	2	2,214.03	161	179	TRUE	
SNU216_PC3_01	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	3	3	0.02%	6.46%	RRGSDIDNPTLTVMDISPPSR	R	S	95.00%	4.77	0.518	0	0	1	0	2	2,407.14	328	348	TRUE	
SNU216_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	8	8	0.05%	14.40%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	2.8	0.381	0	1	1	0	2	2,033.80	298	317	TRUE	
SNU216_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	8	8	0.05%	14.40%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	3.23	0.207	0	1	1	0	2	2,027.92	76	93	TRUE	
SNU216_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	8	8	0.05%	14.40%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	8.24	0.587	0	0	1	1	2	4,229.03	209	247	TRUE	
SNU216_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	8	8	0.05%	14.40%	ISASSATR	R	E	95.00%	1.63	0.39	0	1	0	0	2	872.3873	257	264	TRUE	
SNU216_PC3_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	8	8	0.05%	14.40%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.92	0.467	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC3_01	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	2	0.01%	4.19%	AGGPATPLSPTR	R	L	95.00%	3.05	0.361	0	1	0	0	2	1,204.57	29	40	TRUE	
SNU216_PC3_01	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	2	0.01%	4.19%	ATSSSSGSLSATGR	R	L	95.00%	2.35	0.336	0	1	0	0	2	1,348.57	417	430	TRUE	
SNU216_PC3_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	2	2	2	0.01%	3.89%	AGGLDWPEATEVSPSR	R	T	95.00%	3.54	0.298	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC3_01	Plakophilin-3	IPI00026952	87,084.70	100.00%	2	2	2	0.01%	3.89%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.03	0.35	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216_PC3_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.78%	GGSISVQVNSIKFDSE	R	-	95.00%	3	0.318	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216_PC3_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.78%	VADNSFDAKR	R	G	95.00%	1.89	0.287	0	1	0	0	2	1,202.52	649	658	TRUE	
SNU216_PC3_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.78%	VAGGAAPSKPASAKK	K	G	95.00%	2.14	0.289	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216_PC3_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.80%	2	2	2	0.01%	4.07%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	4.86	0.448	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216_PC3_01	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.80%	2	2	2	0.01%	4.07%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.3	0.0457	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC3_01	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	1	2	3	0.02%	3.56%	HTGPNSPDTANDGFVR	K	L	95.00%	3.61	0.447	0	2	1	0	2	1,764.73	99	114	TRUE	
SNU216_PC3_01	Transketolase	IPI00643920	67,879.40	100.00%	1	1	1	0.01%	3.05%	ILATPPQEDAPSVDIANIR	K	M	95.00%	2.18	0.251	0	1	0	0	2	2,100.04	284	302	TRUE	
SNU216_PC3_01	Isoform 1 of Beta-catenin-like protein 1	IPI00411636,IPI00513797	65,175.20	100.00%	1	1	1	0.01%	2.66%	EYAENIGDGRSPEFR	K	E	86.00%	2.08	0.229	0	1	0	0	2	1,819.76	535	549	TRUE	
SNU216_PC3_01	PREDICTED: similar to Forkhead box protein K1 (N	IPI00549473,IPI00556645	59,700.80	100.00%	3	3	3	0.02%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	2.76	0.456	0	1	0	0	2	1,576.67	280	293	TRUE	
SNU216_PC3_01	PREDICTED: similar to Forkhead box protein K1 (N	IPI00549473,IPI00556645	59,700.80	100.00%	3	3	3	0.02%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	3.89	0.212	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216_PC3_01	PREDICTED: similar to Forkhead box protein K1 (N	IPI00549473,IPI00556645	59,700.80	100.00%	3	3	3	0.02%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	2.45	0.517	0	1	0	0	2	1,585.72	253	267	TRUE	
SNU216_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	4	4	0.03%	9.09%	GNSRPGTPSAEGGSTSSTLR	R	A	95.00%	3.94	0.459	0	0	1	0	2	1,998.89	383	402	TRUE	
SNU216_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	4	4	0.03%	9.09%	IHDLEDDLEMSSDASDASGEEGGR	R	V	95.00%	4.08	0.432	0	1	1	0	2	2,615.01	207	230	TRUE	
SNU216_PC3_01	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	4	4	0.03%	9.09%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	4.63	0.495	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216_PC3_01	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	3	4	4	0.03%	3.03%	KYIEIDSDEEPRGELLSLR	R	D	95.00%	2.74	0.328	0	1	0	0	2	2,342.13	519	537	TRUE	
SNU216_PC3_01	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	3	4	4	0.03%	3.03%	KYIEIDSDEEPR	K	G	95.00%	2.29	0.298	0	1	0	0	2	1,445.58	520	530	TRUE	
SNU216_PC3_01	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	100.00%	3	4	4	0.03%	3.03%	YIEIDSDEEPRGELLSLR	K	D	95.00%	2.28	0.346	0	1	1	0	2	2,214.03	520	537	TRUE	
SNU216_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	5	6	6	0.04%	7.67%	HRPSPPATPPPK	R	T	95.00%	2.55	0.405	0	1	1	0	2	1,441.64	394	405	TRUE	
SNU216_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	5	6	6	0.04%	7.67%	KETESEAEDNLDDLEK	K	H	95.00%	4	0.334	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	5	6	6	0.04%	7.67%	KVELSESEEDKGGK	R	M	88.50%	2.24	0.248	0	1	0	0	2	1,694.69	454	467	TRUE	
SNU216_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	5	6	6	0.04%	7.67%	RESPSPAPKPR	K	K	95.00%	2.43	0.281	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216_PC3_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	5	6	6	0.04%	7.67%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.19	0.487	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.44	0.449	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	RISLSDMPR	R	S	89.90%	1.77	0.234	0	1	0	0	2	1,154.54	442	450	TRUE	
SNU216_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.75	0.397	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC3_01	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	VKLNFDMTASPK	K	I	95.00%	2.25	0.328	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	7	9	15	0.10%	10.60%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	6.03	0.0548	0	1	0	0	2	2,540.96	240	261	TRUE	
SNU216_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	7	9	15	0.10%	10.60%	DSHSSEEDEASSQTDLSQTISKK	R	T	95.00%	4.96	0.0719	0	1	0	0	2	2,669.05	240	262	TRUE	
SNU216_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	7	9	15	0.10%	10.60%	GLRDSHSSEEDEASSQTDLSQTISK	R	K	95.00%	5.99	0.0735	0	0	1	0	2	2,867.16	237	261	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	7	9	15	0.10%	10.60%	GLRDSHSSEEDEASSQTDLSQTISKK	R	T	95.00%	3.98	0.166	0	0	1	0	2	3,075.22	237	262	TRUE	
SNU216_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	7	9	15	0.10%	10.60%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.78	0.577	0	2	3	0	2	2,281.08	217	235	TRUE	
SNU216_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	7	9	15	0.10%	10.60%	RGLRDSHSSEEDEASSQTDLSQTISK	R	K	95.00%	3.74	0.142	0	0	1	0	2	3,103.23	236	261	TRUE	
SNU216_PC3_01	76 kDa protein	IPI00743778	75,757.70	100.00%	7	9	15	0.10%	10.60%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	6.16	0.525	0	2	3	0	2	2,836.13	300	324	TRUE	
SNU216_PC3_01	Golgi phosphoprotein 2	IPI00171411,IPI00759659	46,272.70	99.80%	1	1	1	0.01%	7.07%	LRGEDDYNMDENEAESETDKQAALAGNDI	K	N	95.00%	4.99	0.515	0	0	1	0	2	3,336.36	354	382	TRUE	
SNU216_PC3_01	Splicing factor 3 subunit 1	IPI00017451	88,886.10	99.80%	1	2	2	0.01%	2.77%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	5.72	0.369	0	1	1	0	2	2,697.03	317	338	TRUE	
SNU216_PC3_01	programmed cell death 4 isoform 2	IPI00240675,IPI00290110,IP	50,577.40	99.80%	1	1	1	0.01%	2.18%	SGLTVPTSPK	R	G	95.00%	1.86	0.395	0	1	0	0	2	1,066.52	76	85	TRUE	
SNU216_PC3_01	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	7	9	0.06%	4.93%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.2	0.455	0	1	1	1	2	2,450.06	90	113	TRUE	
SNU216_PC3_01	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	7	9	0.06%	4.93%	KTPEGRASPAPGSGHPEGPGAHLDMNSLD	R	A	95.00%	4.93	0.402	0	0	1	3	2	3,118.42	84	113	TRUE	
SNU216_PC3_01	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	7	9	0.06%	4.93%	TPEGRASPAPGSGHPEGPGAHLDMNSLDR	K	A	95.00%	6.19	0.511	0	0	1	1	2	2,990.32	85	113	TRUE	
SNU216_PC3_01	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	4	4	0.03%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.86	0.346	0	1	1	0	2	2,154.05	81	100	TRUE	
SNU216_PC3_01	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	4	4	0.03%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.19	0.231	0	1	1	0	2	1,997.94	82	100	TRUE	
SNU216_PC3_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.80%	2	2	2	0.01%	5.92%	GLNTSQESDDDILDESSSPEGTQK	R	V	95.00%	4.9	0.551	0	1	0	0	2	2,632.08	223	246	TRUE	
SNU216_PC3_01	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.80%	2	2	2	0.01%	5.92%	LQALAEEPSQPHTRSPAK	K	N	95.00%	3.71	0.404	0	0	1	0	2	2,039.99	177	194	TRUE	
SNU216_PC3_01	insulin-like growth factor 2 mRNA binding protei	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	1	3	0.02%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3.52	0.497	0	3	0	0	2	1,980.90	152	168	TRUE	
SNU216_PC3_01	Histone H1.5	IPI00217468	22,450.50	100.00%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.61	0.518	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC3_01	Histone H1.5	IPI00217468	22,450.50	100.00%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	2.96	0.228	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC3_01	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTK	K	R	95.00%	3.19	0.318	0	0	1	0	2	2,971.13	299	323	TRUE	
SNU216_PC3_01	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTKR	K	R	95.00%	4.1	0.394	0	0	1	0	2	3,127.23	299	324	TRUE	
SNU216_PC3_01	Insulin receptor tyrosine kinase substrate	IPI00179326	56,883.90	99.80%	1	1	1	0.01%	3.72%	TPASTPVSGTPQASPMIER	K	S	95.00%	4.27	0.491	0	1	0	0	2	2,006.93	248	266	TRUE	
SNU216_PC3_01	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	5	0.03%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.41	0.423	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216_PC3_01	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	5	0.03%	4.25%	SYSPDGKESPSDK	R	K	95.00%	2.3	0.385	0	1	0	0	2	1,476.59	596	608	TRUE	
SNU216_PC3_01	Matrin-3	IPI00017297	94,626.70	100.00%	3	5	5	0.03%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.7	0.347	0	1	1	0	2	1,604.68	596	609	TRUE	
SNU216_PC3_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	99.80%	1	1	1	0.01%	6.30%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.29	0.318	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216_PC3_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	2	2	2	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	3.21	0.356	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC3_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	2	2	2	0.01%	2.26%	TDSSPNQAR	K	A	95.00%	2.25	0.301	0	1	0	0	2	1,055.42	138	146	TRUE	
SNU216_PC3_01	Isoform 1 of Tripartite motif protein 16	IPI00007955,IPI00556381	63,997.40	99.80%	1	1	1	0.01%	3.55%	ETEEQDSDSAEQGDPAGEGK	R	E	95.00%	3.63	0.508	0	1	0	0	2	2,158.79	54	73	TRUE	
SNU216_PC3_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	2.53	0.325	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC3_01	HSPC121	IPI00008998	44,424.70	100.00%	2	2	2	0.01%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.41	0.434	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216_PC3_01	HSPC121	IPI00008998	44,424.70	100.00%	2	2	2	0.01%	6.17%	WLDESDAEMELR	R	A	95.00%	2.88	0.451	0	1	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	7	8	0.05%	8.49%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.55	0.439	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	7	8	0.05%	8.49%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.74	0.372	0	0	2	1	2	3,647.49	108	138	TRUE	
SNU216_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	7	8	0.05%	8.49%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.72	0.468	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216_PC3_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	7	8	0.05%	8.49%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.6	0.343	0	0	1	1	2	3,787.60	107	138	TRUE	
SNU216_PC3_01	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	99.80%	1	2	2	0.01%	4.95%	RDSSESQLASTESDKPTTGR	R	V	95.00%	6.05	0.494	0	1	1	0	2	2,231.98	64	83	TRUE	
SNU216_PC3_01	RAC-alpha serine/threonine-protein kinase	IPI00012866	55,687.60	99.80%	1	1	1	0.01%	4.37%	SGSPSDNSGAEEMEVSLAKPK	R	H	95.00%	4.46	0.466	0	1	0	0	2	2,199.95	122	142	TRUE	
SNU216_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	6	0.04%	5.18%	DYDDMSPR	R	R	95.00%	1.85	0.483	1	2	0	0	2	1,094.35	279	286	TRUE	
SNU216_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	6	0.04%	5.18%	IILDLISESPIKGR	K	A	95.00%	2.47	0.293	0	1	0	0	2	1,633.89	208	221	TRUE	
SNU216_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	6	0.04%	5.18%	RDYDDMSPR	R	R	95.00%	1.71	0.191	1	0	0	0	2	1,234.46	278	286	TRUE	
SNU216_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	4	5	6	0.04%	5.18%	RDYDDMSPRR	R	G	93.80%	2.16	0.259	0	1	0	0	2	1,390.56	278	287	TRUE	
SNU216_PC3_01	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	99.80%	1	1	1	0.01%	2.75%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	5.06	0.374	0	0	1	0	2	2,616.22	446	467	TRUE	
SNU216_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	6	0.04%	11.50%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	4.67	0.432	0	0	2	0	2	2,410.09	593	615	TRUE	
SNU216_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	6	0.04%	11.50%	DLTHSDSESSLHMSDR	R	Q	95.00%	3.19	0.122	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	6	0.04%	11.50%	KAVAEEDNGSIGEETDSSPGR	K	K	95.00%	2.39	0.262	0	1	0	0	2	2,227.94	651	671	TRUE	
SNU216_PC3_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	6	0.04%	11.50%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	4.29	0.0283	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216_PC3_01	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	1	1	1	0.01%	2.37%	EESDDEAAVEEEEEEKKPK	K	T	95.00%	3.99	0.396	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216_PC3_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	4.34	0.476	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216_PC3_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.65	0.453	0	1	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC3_01	Stress-70 protein, mitochondrial precursor	IPI00007765	73,681.30	100.00%	1	1	1	0.01%	2.06%	QAVTNPNNTFYATK	R	R	95.00%	2.54	0.224	0	1	0	0	2	1,728.70	108	121	TRUE	
SNU216_PC3_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	4	0.03%	5.01%	DLSPTLIDNSAAK	R	Q	95.00%	2.86	0.519	0	3	0	0	2	1,424.67	486	498	TRUE	
SNU216_PC3_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	4	0.03%	5.01%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	3.57	0.371	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC3_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	1	2	5	0.03%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.14	0.466	0	2	3	0	2	2,051.83	68	85	TRUE	
SNU216_PC3_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	5.69	0.603	0	0	1	0	2	3,222.36	68	95	TRUE	
SNU216_PC3_01	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.26	0.558	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216_PC3_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	2	2	0.01%	14.60%	AGDLLEDSPKRPK	R	E	95.00%	2.54	0.207	0	1	0	0	2	1,505.74	158	170	TRUE	
SNU216_PC3_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	2	2	0.01%	14.60%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.7	0.342	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	5	0.03%	2.51%	MGQAPSQSLLPPAQDQPRSPVPSAFSDQSI	R	C	95.00%	4.51	0.366	0	0	1	0	2	3,259.52	2431	2460	TRUE	
SNU216_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	5	0.03%	2.51%	RVPSPTPAPK	K	E	95.00%	2.21	0.291	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	5	0.03%	2.51%	SRTPPSAPSQSR	R	M	92.80%	2.18	0.236	0	1	0	0	2	1,350.62	2407	2418	TRUE	
SNU216_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	5	0.03%	2.51%	THTTALAGRSPSPASGR	K	R	95.00%	2.47	0.344	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC3_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	5	0.03%	2.51%	VPSPTPAPK	R	E	95.00%	1.71	0.353	1	0	0	0	2	973.4756	2579	2587	TRUE	
SNU216_PC3_01	hypothetical protein LOC91748	IPI00302594	114,989.30	99.00%	1	1	1	0.01%	2.39%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	2.95	0.215	0	0	1	0	2	2,851.43	615	639	TRUE	
SNU216_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.56%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.53	0.392	0	1	0	0	2	1,861.85	269	284	TRUE	
SNU216_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.56%	HDSPDPSPPR	R	R	95.00%	2.04	0.5	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.56%	HDSPDPSPPRR	R	P	95.00%	1.97	0.366	0	1	0	0	2	1,420.54	195	205	TRUE	
SNU216_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.56%	HFRHDTPDSSPR	R	R	95.00%	2.68	0.314	0	0	1	0	2	1,531.64	118	129	TRUE	
SNU216_PC3_01	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.56%	NSKYEYDPDISPPR	K	K	95.00%	2.8	0.19	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216_PC3_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	4	4	0.03%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.29	0.395	0	1	1	0	2	1,689.71	1052	1066	TRUE	
SNU216_PC3_01	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	4	4	0.03%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	3.79	0.31	0	1	1	0	2	1,717.72	1051	1065	TRUE	
SNU216_PC3_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	4	4	0.03%	5.24%	NQGIEGSPGGR	R	V	93.40%	1.76	0.268	0	1	0	0	2	1,151.48	187	197	TRUE	
SNU216_PC3_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	4	4	0.03%	5.24%	SPPTQVAISSDSAR	R	K	95.00%	3.08	0.475	0	1	0	0	2	1,495.68	201	214	TRUE	
SNU216_PC3_01	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	4	4	0.03%	5.24%	VTRSPPTQVAISSDSAR	R	K	95.00%	3.29	0.425	0	1	1	0	2	1,851.90	198	214	TRUE	
SNU216_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	18.10%	EEDEEPESPPEKK	K	T	95.00%	2.53	0.352	0	1	0	0	2	1,622.65	207	219	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	18.10%	LKATVTPSPVKGK	R	G	95.00%	2.85	0.368	0	0	1	0	2	1,405.78	174	186	TRUE	
SNU216_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	18.10%	NSQEDSEDSEDKDVK	K	T	95.00%	3.58	0.361	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC3_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	18.10%	SGKNSQEDSEDSEDKDVK	R	T	91.70%	1.65	0.363	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216_PC3_01	Isoform 2 of Bromodomain-containing protein 9	IPI00374268,IPI00549384,IP	55,962.40	99.80%	2	2	2	0.01%	21.20%	GGSRPSSNLSSLSNASERDQHHLGSPSR	R	L	95.00%	4.7	0.418	0	0	0	1	2	3,000.37	448	475	TRUE	
SNU216_PC3_01	Isoform 2 of Bromodomain-containing protein 9	IPI00374268,IPI00549384,IP	55,962.40	99.80%	2	2	2	0.01%	21.20%	LSVGEQPDVTHDPYEFLQSPEPAASAK	R	-	95.00%	3.31	0.302	0	0	1	0	2	2,992.36	476	502	TRUE	
SNU216_PC3_01	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	7	0.04%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	4.35	0.345	0	2	2	0	2	1,673.69	221	235	TRUE	
SNU216_PC3_01	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	7	0.04%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.41	0.444	0	1	2	0	2	1,721.82	221	236	TRUE	
SNU216_PC3_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	2	2	2	0.01%	6.79%	SRWSGSQQVEQPTGSVLWMAPEVIR	K	M	95.00%	5.15	0.524	0	0	1	0	2	2,908.38	494	518	TRUE	
SNU216_PC3_01	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	2	2	2	0.01%	6.79%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	4.43	0.393	0	1	0	0	2	2,108.97	257	275	TRUE	
SNU216_PC3_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	4	4	0.03%	8.98%	RPDPDSDEDEDYER	R	E	95.00%	3.42	0.53	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC3_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	4	4	0.03%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	3.86	0.378	0	1	1	0	2	2,102.79	57	72	TRUE	
SNU216_PC3_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	4	4	0.03%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.17	0.576	0	1	0	0	2	2,052.92	129	148	TRUE	
SNU216_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	6	8	8	0.05%	17.20%	EESDGEYDEFGR	R	K	95.00%	2.66	0.545	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	6	8	8	0.05%	17.20%	EESDGEYDEFGRK	R	K	95.00%	3	0.52	0	1	0	0	2	1,640.61	118	130	TRUE	
SNU216_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	6	8	8	0.05%	17.20%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.2	0.382	0	1	1	0	2	2,545.00	110	129	TRUE	
SNU216_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	6	8	8	0.05%	17.20%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	3.14	0.211	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	6	8	8	0.05%	17.20%	EVEDKESEGEEEEDEDEDLSK	K	Y	95.00%	4.93	0.595	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC3_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	6	8	8	0.05%	17.20%	SRSPESQVIGENTK	R	Q	88.60%	2.08	0.222	0	1	0	0	2	1,691.70	305	318	TRUE	
SNU216_PC3_01	THO complex subunit 1	IPI00305374	75,668.80	100.00%	3	3	3	0.02%	5.18%	ELPPPSEEIKTGEDEDEEDNDALLKENESPD\	K	R	95.00%	2.88	0.248	0	0	0	1	2	3,818.67	532	564	TRUE	
SNU216_PC3_01	THO complex subunit 1	IPI00305374	75,668.80	100.00%	3	3	3	0.02%	5.18%	TGEDEDEEDNDALLKENESPDVR	K	R	95.00%	3.68	0.404	0	0	1	0	2	2,699.08	542	564	TRUE	
SNU216_PC3_01	THO complex subunit 1	IPI00305374	75,668.80	100.00%	3	3	3	0.02%	5.18%	TGEDEDEEDNDALLKENESPDVRR	K	D	95.00%	3.26	0.264	0	0	1	0	2	2,855.19	542	565	TRUE	
SNU216_PC3_01	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	99.80%	1	1	1	0.01%	1.27%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.21	0.486	0	1	0	0	2	1,960.90	609	626	TRUE	
SNU216_PC3_01	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	3	7	0.04%	6.29%	KTSSDDESEEEDDLLQR	K	T	95.00%	4.41	0.0264	0	1	0	0	2	2,270.82	203	220	TRUE	
SNU216_PC3_01	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	3	7	0.04%	6.29%	KTSSDDESEEDDLLQR	K	T	94.30%	4.12	0.0104	0	1	0	0	2	2,142.73	204	220	TRUE	
SNU216_PC3_01	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	3	3	7	0.04%	6.29%	VQEHEDSGDSEVENEAK	R	G	95.00%	3.66	0.599	0	5	0	0	2	2,061.73	115	131	TRUE	
SNU216_PC3_01	Septin-2	IPI00014177	41,488.20	99.80%	1	3	3	0.02%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.8	0.389	0	1	1	1	2	2,517.05	210	229	TRUE	
SNU216_PC3_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.70%	1	1	1	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	94.20%	2.96	0.203	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC3_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	3	4	5	0.03%	15.40%	KDELSDWSLAGEDDRDSR	R	H	95.00%	2.73	0.231	0	0	1	0	2	2,173.90	416	433	TRUE	
SNU216_PC3_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	3	4	5	0.03%	15.40%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	5.53	0.0978	0	1	2	0	2	2,892.14	391	415	TRUE	
SNU216_PC3_01	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	3	4	5	0.03%	15.40%	SSISSVLKDPDSNPYSLLDNTESDQTADTDA	K	R	95.00%	8.3	0.0277	0	0	0	1	2	4,400.89	463	502	TRUE	
SNU216_PC3_01	Hypothetical protein FAM73B	IPI00646782	65,532.90	99.80%	2	2	2	0.01%	3.71%	GDSGSTPMPR	R	D	95.00%	1.79	0.347	0	1	0	0	2	1,084.41	201	210	TRUE	
SNU216_PC3_01	Hypothetical protein FAM73B	IPI00646782	65,532.90	99.80%	2	2	2	0.01%	3.71%	TLMLPLTEGSLR	R	L	95.00%	2.35	0.234	0	1	0	0	2	1,410.71	267	278	TRUE	
SNU216_PC3_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	0.55%	MKTPVQYSQQQNSPQK	K	H	95.00%	4	0.485	0	1	0	0	2	1,971.90	345	360	TRUE	
SNU216_PC3_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	0.55%	TPVQYSQQQNSPQK	K	H	95.00%	2.96	0.189	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC3_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	0.55%	TPVQYSQQQNSPQKHK	K	N	95.00%	3.87	0.298	0	0	1	0	2	1,977.92	347	362	TRUE	
SNU216_PC3_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	99.80%	2	2	2	0.01%	3.67%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	2.74	0.249	0	0	1	0	2	2,279.98	667	686	TRUE	
SNU216_PC3_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	99.80%	2	2	2	0.01%	3.67%	KLQLERPVSPETQADLQR	R	N	95.00%	2.85	0.183	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC3_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	1.67%	EESYSPSKDR	K	N	95.00%	1.96	0.269	0	1	0	0	2	1,277.50	428	437	TRUE	
SNU216_PC3_01	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	1.67%	IESDEEEDFENVGK	R	V	95.00%	3.39	0.394	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216_PC3_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	2	2	0.01%	4.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	2.98	0.362	0	1	0	0	2	2,279.96	480	500	TRUE	
SNU216_PC3_01	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	2	2	0.01%	4.20%	DTEGGPKEEESPV	K	-	95.00%	2.48	0.306	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216_PC3_01	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	100.00%	1	2	2	0.01%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	3.58	0.502	0	1	1	0	2	1,586.78	68	81	TRUE	
SNU216_PC3_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	3	3	0.02%	8.25%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	6.88	0.556	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216_PC3_01	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	3	3	0.02%	8.25%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.45	0.46	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216_PC3_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	3	3	0.02%	10.30%	GGSGSHNWGTVKDELTESPK	R	Y	95.00%	2.9	0.265	0	0	1	0	2	2,165.95	217	236	TRUE	
SNU216_PC3_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	3	3	0.02%	10.30%	GGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	5.02	0.315	0	0	1	0	2	2,698.25	217	240	TRUE	
SNU216_PC3_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	3	3	0.02%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.13	0.408	0	0	1	0	2	2,191.89	328	345	TRUE	
SNU216_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	8	9	0.06%	12.50%	AGAAAGDSDEESRADDK	R	G	95.00%	3.84	0.501	0	1	0	0	2	1,744.67	330	346	TRUE	
SNU216_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	8	9	0.06%	12.50%	AGAAAGDSDEESRADDKGVMDYYLK	R	Y	95.00%	3.55	0.275	0	0	0	1	2	2,714.13	330	354	TRUE	
SNU216_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	8	9	0.06%	12.50%	GGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	6.51	0.584	0	1	1	0	2	2,410.07	505	530	TRUE	
SNU216_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	8	9	0.06%	12.50%	GGAPDPSPGATATPGAPAQPSSPDARR	R	N	95.00%	4.87	0.436	0	0	1	0	2	2,566.17	505	531	TRUE	
SNU216_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	8	9	0.06%	12.50%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	4.59	0.423	0	1	2	0	2	2,210.89	537	555	TRUE	
SNU216_PC3_01	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	8	9	0.06%	12.50%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	6.18	0.358	0	0	1	0	2	2,665.24	503	530	TRUE	
SNU216_PC3_01	Elongation factor 2 kinase	IPI00011689	82,173.90	99.80%	1	1	1	0.01%	1.93%	KYESDEDSLGSSGR	R	V	95.00%	2.73	0.441	0	1	0	0	2	1,609.64	467	480	TRUE	
SNU216_PC3_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	5	0.03%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.68	0.315	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216_PC3_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	5	0.03%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.16	0.425	0	2	1	0	2	1,767.78	38	56	TRUE	
SNU216_PC3_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	5	0.03%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.05	0.493	0	1	0	0	2	2,132.89	38	58	TRUE	
SNU216_PC3_01	Metastasis-associated protein MTA2	IPI00171798	75,025.10	100.00%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	95.00%	4.43	0.127	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216_PC3_01	WDR26 protein (Fragment)	IPI00646469	20,698.70	99.60%	2	2	2	0.01%	5.74%	KRLSQSDEDVIR	K	L	92.40%	2.33	0.21	0	1	0	0	2	1,525.74	111	122	TRUE	
SNU216_PC3_01	WDR26 protein (Fragment)	IPI00646469	20,698.70	99.60%	2	2	2	0.01%	5.74%	RLSQSDEDVIR	K	L	95.00%	3.15	0.337	0	1	0	0	2	1,397.64	112	122	TRUE	
SNU216_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	4	5	0.03%	17.60%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.16	0.557	0	1	3	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	4	5	0.03%	17.60%	HASPILPITEFSDIPR	K	R	95.00%	3.66	0.315	0	1	0	0	2	1,872.93	304	319	TRUE	
SNU216_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	4	5	0.03%	17.60%	QNGSNDSDRYSDNEEDSK	R	I	95.00%	2.57	0.318	0	1	0	0	2	2,139.77	174	191	TRUE	
SNU216_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	4	5	0.03%	17.60%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	4.88	0.248	0	1	2	0	2	2,623.08	174	195	TRUE	
SNU216_PC3_01	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	3	4	5	0.03%	17.60%	SSTPLPTISSSAENTR	R	Q	91.40%	2.44	0.167	0	1	0	0	2	1,727.78	158	173	FALSE	IPI00216230
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	DLFDYSPPLHK	K	N	95.00%	2.34	0.248	0	1	0	0	2	1,411.63	507	517	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	ETQSPEQVKSEK	K	L	95.00%	2.76	0.411	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.04	0.523	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.59	0.533	0	0	1	0	2	2,726.13	369	391	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	KAEGEPQEESPLK	K	S	95.00%	3.71	0.414	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	KAEGEPQEESPLKSK	K	S	95.00%	4.79	0.468	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	KETQSPEQVKSEK	K	L	95.00%	3.65	0.324	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	LKDLFDYSPPLHK	K	N	95.00%	2.75	0.332	0	1	0	0	2	1,652.81	505	517	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	NTPSQHSHSIQHSPER	K	S	95.00%	3.46	0.337	0	1	2	1	2	1,921.83	256	271	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.82	0.528	0	1	1	0	2	2,257.84	392	409	TRUE	
SNU216_PC3_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	17	18	0.12%	12.80%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.92	0.447	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC3_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	GSSPGPRPVEGTPASR	R	T	95.00%	2.38	0.222	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216_PC3_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	QAPAPTVIRDPPSITPAVKSPLPGPSEEK	R	T	95.00%	5.25	0.112	0	0	1	0	2	3,059.58	439	467	TRUE	
SNU216_PC3_01	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	3	0.02%	10.70%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.74	0.267	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216_PC3_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	99.80%	2	2	2	0.01%	2.67%	TVEDEDQDSEEEKDNDSYIK	K	E	95.00%	3.64	0.55	0	1	0	0	2	2,467.95	406	425	TRUE	
SNU216_PC3_01	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	99.80%	2	2	2	0.01%	2.67%	TVEDEDQDSEEEKDNDSYIKER	K	S	95.00%	4.24	0.375	0	0	1	0	2	2,753.09	406	427	TRUE	
SNU216_PC3_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	2.69	0.31	0	1	0	0	2	1,529.66	311	325	TRUE	
SNU216_PC3_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	4.93	0.518	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216_PC3_01	Isoform 2 of N-acetylserotonin O-methyltransfera	IPI00249080,IPI00479385,IP	69,791.70	99.80%	2	2	2	0.01%	4.79%	HDSIPAADTFEDLSDVEGGGSEPTQR	K	D	95.00%	4.69	0.396	0	0	1	0	2	2,810.18	227	252	TRUE	
SNU216_PC3_01	Isoform 2 of N-acetylserotonin O-methyltransfera	IPI00249080,IPI00479385,IP	69,791.70	99.80%	2	2	2	0.01%	4.79%	SVKHDSIPAADTFEDLSDVEGGGSEPTQR	R	D	95.00%	4.57	0.503	0	0	1	0	2	3,124.37	224	252	TRUE	
SNU216_PC3_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	99.90%	2	2	3	0.02%	3.05%	DGQDAIAQSPEKESK	K	D	95.00%	3.78	0.402	0	1	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC3_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	99.90%	2	2	3	0.02%	3.05%	ISSKSPGHMVILDQTK	R	G	95.00%	3.23	0.383	0	0	2	0	2	1,820.90	549	564	TRUE	
SNU216_PC3_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	2.95	0.458	0	2	0	0	2	1,891.66	491	505	TRUE	
SNU216_PC3_01	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.2	0.274	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216_PC3_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	99.80%	1	1	1	0.01%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	2.71	0.445	0	1	0	0	2	1,472.66	416	429	TRUE	
SNU216_PC3_01	Isoform 1 of Epsin-4	IPI00291930,IPI00397519	68,260.50	99.90%	1	1	1	0.01%	4.96%	TIDLGAAAHYTGDKASPDQNASTHTPQSS\	K	T	95.00%	6.18	0.0491	0	0	1	0	2	3,248.49	284	314	TRUE	
SNU216_PC3_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.55	0.198	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216_PC3_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	EEVVGGDDSDGLR	R	A	95.00%	2.44	0.288	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216_PC3_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	4.75	0.232	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216_PC3_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	2	2	0.01%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.37	0.423	0	1	0	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC3_01	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	2	2	0.01%	0.88%	SSSVGSSSSYPISPAVSR	R	T	93.10%	4.15	0	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC3_01	Tubulin--tyrosine ligase-like protein 12	IPI00029048	74,403.70	100.00%	2	4	4	0.03%	4.81%	RPAERSSPGQTPEEGAQALAEFAALHGPALI	R	A	95.00%	6.33	0.425	0	0	1	1	2	3,294.60	10	40	TRUE	
SNU216_PC3_01	Tubulin--tyrosine ligase-like protein 12	IPI00029048	74,403.70	100.00%	2	4	4	0.03%	4.81%	SSPGQTPEEGAQALAEFAALHGPALR	R	A	95.00%	4.81	0.469	0	1	1	0	2	2,685.27	15	40	TRUE	
SNU216_PC3_01	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	GPDEAMEDGEEGSDDEAEWVVTK	R	D	95.00%	6.06	0.59	0	3	1	0	2	2,574.97	426	448	TRUE	
SNU216_PC3_01	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	SKYDEIFYNLAPADGKLSGSK	K	A	95.00%	4.14	0.457	0	0	1	0	2	2,383.12	451	471	TRUE	
SNU216_PC3_01	WDR79 protein	IPI00306087	59,310.10	100.00%	3	4	4	0.03%	10.40%	GDPPRLSPDPVAGSAVSQELR	R	E	95.00%	3.65	0.189	0	0	1	0	2	2,228.07	48	68	TRUE	
SNU216_PC3_01	WDR79 protein	IPI00306087	59,310.10	100.00%	3	4	4	0.03%	10.40%	NADSELMPPPPERGDPPRLSPDPVAGSAVS	K	E	95.00%	3.91	0.378	0	0	1	1	2	3,661.73	35	68	TRUE	
SNU216_PC3_01	WDR79 protein	IPI00306087	59,310.10	100.00%	3	4	4	0.03%	10.40%	VFPEPTESGDEGEELGLPLLSTR	R	H	95.00%	4.37	0.396	0	0	1	0	2	2,552.18	484	506	TRUE	
SNU216_PC3_01	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	1	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	6.93	0.715	0	0	1	0	2	4,199.41	119	153	TRUE	
SNU216_PC3_01	Inosine-5'-monophosphate dehydrogenase 2	IPI00291510	55,806.50	100.00%	1	1	1	0.01%	3.31%	GMGSLDAMDKHLSSQNR	R	Y	89.20%	2.73	0.163	0	0	1	0	2	1,926.82	413	429	TRUE	
SNU216_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	4.33%	HGSDPAFAPGPR	R	G	95.00%	2.67	0.433	0	0	1	0	2	1,288.55	521	532	TRUE	
SNU216_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	4.33%	RGSPVPPVPER	R	R	95.00%	2.1	0.22	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	4.33%	RLSLGQGDSTEAATEER	R	G	95.00%	3.77	0.457	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC3_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	4.33%	RSSPVPPVPER	R	R	85.60%	2.4	0.12	0	1	0	0	2	1,300.64	923	933	TRUE	
SNU216_PC3_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	2	2	2	0.01%	1.72%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.66	0.443	0	0	1	0	2	3,651.55	111	140	TRUE	
SNU216_PC3_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	2	2	2	0.01%	1.72%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.81	0.318	0	0	1	0	2	3,523.46	112	140	TRUE	
SNU216_PC3_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	4	4	0.03%	11.60%	ASNEKESAAPASPAPSPAPSPTPAPPQK	R	E	95.00%	4.24	0.36	0	0	1	0	2	2,762.30	533	560	TRUE	
SNU216_PC3_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	4	4	0.03%	11.60%	LSASTASELSPK	R	S	89.40%	2.16	0.258	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216_PC3_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	4	4	0.03%	11.60%	QLPLEPESPSGQVGPRPAPPQEESPSSEAK	K	S	95.00%	3.4	0.238	0	0	1	0	2	3,205.51	63	92	TRUE	
SNU216_PC3_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	4	4	0.03%	11.60%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	3.59	0.222	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC3_01	Histone H1.4	IPI00217467	21,735.70	100.00%	1	1	1	0.01%	9.63%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	3.99	0.454	0	0	1	0	2	2,112.07	1	21	TRUE	
SNU216_PC3_01	Isoform 1 of Folliculin	IPI00329635	64,631.20	99.80%	2	2	3	0.02%	8.61%	AHSPAEGASVESSSPGPK	R	K	95.00%	4.58	0.589	0	2	0	0	2	1,774.76	60	77	TRUE	
SNU216_PC3_01	Isoform 1 of Folliculin	IPI00329635	64,631.20	99.80%	2	2	3	0.02%	8.61%	LADLEEESESWDNSEAEEEEKAPVLPESTEGI	K	E	95.00%	4.63	0.393	0	0	1	0	2	3,684.56	291	322	TRUE	
SNU216_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	10	0.06%	15.30%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.81	0.423	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	10	0.06%	15.30%	QSNASSDVEVEEK	K	E	95.00%	2.87	0.315	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	10	0.06%	15.30%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	4.53	0.394	0	0	1	1	2	3,116.31	101	127	TRUE	
SNU216_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	10	0.06%	15.30%	QVETEEAGVVTTATASVNLKVSPK	K	R	95.00%	4.3	0.0441	0	1	1	0	2	2,538.27	156	179	TRUE	
SNU216_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	10	0.06%	15.30%	TGVTSTSDSEEEGDDQEGEK	K	K	90.20%	3.82	0.0126	0	2	0	0	2	2,259.77	267	286	TRUE	
SNU216_PC3_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	9	10	0.06%	15.30%	TGVTSTSDSEEEGDDQEGEKKR	K	K	92.90%	3.87	0.0223	0	1	0	0	2	2,543.97	267	288	TRUE	
SNU216_PC3_01	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	1	1	1	0.01%	2.91%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.36	0.332	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	3	0.02%	5.40%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.96	0.474	0	2	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	3	0.02%	5.40%	TGSESSQTGTSTTSSR	R	N	87.60%	3.3	0.0516	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC3_01	36 kDa protein	IPI00644521	36,439.50	98.70%	1	1	1	0.01%	7.44%	TEEPLGSPHPSGTVESPGEGPQDTR	K	I	95.00%	3.25	0.193	0	0	1	0	2	2,721.11	131	155	TRUE	
SNU216_PC3_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	ARVDHGAEIITQSPGR	K	S	95.00%	3.73	0.211	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216_PC3_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.95	0.0571	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC3_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	VDHGAEIITQSPGR	R	S	95.00%	3.85	0.487	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	LHKTEDGGWEWSDDEFDEESEEGK	R	A	95.00%	4.3	0.501	0	0	1	0	2	2,934.13	328	351	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	LHKTEDGGWEWSDDEFDEESEEGKAAISQL	R	S	95.00%	5.25	0.384	0	0	0	1	2	3,673.56	328	358	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.19	0.634	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216_PC3_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	TEDGGWEWSDDEFDEESEEGKAAISQLR	K	S	95.00%	5.64	0.501	0	0	1	0	2	3,295.32	331	358	TRUE	
SNU216_PC3_01	Histone deacetylase 1	IPI00013774	55,104.10	99.80%	1	2	8	0.05%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	I	95.00%	6.03	0.512	0	0	4	4	2	3,743.57	372	404	TRUE	
SNU216_PC3_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	100.00%	3	3	3	0.02%	3.65%	RVALSDDETKETENMR	K	K	84.50%	2.64	0.209	0	0	1	0	2	1,973.86	303	318	TRUE	
SNU216_PC3_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	100.00%	3	3	3	0.02%	3.65%	VALSDDETKETENMR	R	K	95.00%	3.21	0.47	0	1	0	0	2	1,817.76	304	318	TRUE	
SNU216_PC3_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	100.00%	3	3	3	0.02%	3.65%	VALSDDETKETENMRK	R	K	95.00%	4.31	0.402	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216_PC3_01	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00292000,IPI00657721	55,457.40	99.80%	1	1	1	0.01%	1.20%	SGLMST	K	-	95.00%	1.25	0.465	1	0	0	0	2	675.242	494	499	TRUE	
SNU216_PC3_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	4	4	0.03%	9.08%	AGGASPAASSTAQPPTQHR	R	L	95.00%	2.73	0.405	0	1	1	0	2	1,871.84	449	467	TRUE	
SNU216_PC3_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	4	4	0.03%	9.08%	KASPEPEGEAAGK	R	M	95.00%	3.74	0.349	0	1	0	0	2	1,350.59	382	394	TRUE	
SNU216_PC3_01	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	4	4	0.03%	9.08%	NVAEALGHSPKDPGGGGGPVR	K	A	95.00%	3.17	0.361	0	0	1	0	2	2,051.97	428	448	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	99.80%	1	2	3	0.02%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.56	0.411	0	1	2	0	2	2,661.12	164	187	TRUE	
SNU216_PC3_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.58%	KKEEPSQNDISPK	K	T	95.00%	3.12	0.439	0	1	0	0	2	1,579.74	79	91	TRUE	
SNU216_PC3_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.58%	NEEPSEEEIDAPKPK	K	K	95.00%	4.06	0.397	0	1	0	0	2	1,791.77	117	131	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	56 kDa protein	IPI00337602,IPI00373877	55,569.20	100.00%	2	2	2	0.01%	3.85%	ISLSKSPTKTDPK	K	N	95.00%	2.56	0.278	0	1	0	0	2	1,481.76	176	188	TRUE	
SNU216_PC3_01	56 kDa protein	IPI00337602,IPI00373877	55,569.20	100.00%	2	2	2	0.01%	3.85%	SPTKTDPKNEEEEK	K	R	95.00%	2.95	0.442	0	1	0	0	2	1,711.74	181	194	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	3	3	0.02%	6.27%	SQGSGNEAEPLGK	K	G	95.00%	2.13	0.324	0	1	0	0	2	1,353.57	452	464	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	3	3	0.02%	6.27%	TSPVKSNTPAAHLEIKPDELAK	K	K	95.00%	4.15	0.436	0	0	1	1	2	2,426.23	194	215	TRUE	
SNU216_PC3_01	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	2	3	3	0.02%	2.96%	VNLEESSGVENSPAGAR	R	P	95.00%	2.9	0.305	0	1	0	0	2	1,795.79	291	307	TRUE	
SNU216_PC3_01	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	2	3	3	0.02%	2.96%	VNLEESSGVENSPAGARPK	R	R	95.00%	4.23	0.365	0	1	1	0	2	2,020.93	291	309	TRUE	
SNU216_PC3_01	ring finger protein 12	IPI00386464	68,549.00	100.00%	2	2	2	0.01%	2.24%	SRSPLHPMSEIPR	R	R	84.70%	2.65	0.179	0	0	1	0	2	1,586.75	228	240	TRUE	
SNU216_PC3_01	ring finger protein 12	IPI00386464	68,549.00	100.00%	2	2	2	0.01%	2.24%	SRSPLHPMSEIPRR	R	S	95.00%	2.83	0.198	0	0	0	1	2	1,742.85	228	241	TRUE	
SNU216_PC3_01	Isoform 1 of Cleavage and polyadenylation specif	IPI00550821,IPI00719106	51,096.50	100.00%	1	1	1	0.01%	4.67%	DSSDSADGRATPSENLVPSSAR	R	V	95.00%	3.9	0.365	0	0	1	0	2	2,298.98	184	205	TRUE	
SNU216_PC3_01	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	99.80%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	4.6	0.0111	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216_PC3_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	3	3	0.02%	6.35%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.55	0.509	0	0	1	0	2	2,204.91	309	328	TRUE	
SNU216_PC3_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	3	3	0.02%	6.35%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.01	0.359	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216_PC3_01	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	3	3	0.02%	6.35%	SQGDEAGGHGEDRPEPLSPKESK	R	K	94.10%	2.46	0.213	0	0	1	0	2	2,487.08	361	383	TRUE	
SNU216_PC3_01	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	10	0.06%	7.42%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	3.67	0.46	0	4	2	0	2	1,957.90	293	311	TRUE	
SNU216_PC3_01	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	10	0.06%	7.42%	SPSPPDGSPAATPEIR	K	V	95.00%	2.79	0.518	0	3	0	0	2	1,658.74	296	311	TRUE	
SNU216_PC3_01	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	10	0.06%	7.42%	VNHEPEPAGGATPGATLPKSPSQLR	R	K	95.00%	5.93	0.6	0	0	1	0	2	2,591.26	312	336	TRUE	
SNU216_PC3_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	6.06	0.495	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216_PC3_01	Isoform 1 of Programmed cell death protein 8, m	IPI00000690	66,901.50	100.00%	1	1	1	0.01%	3.10%	ATAQDNPKSATEQSGTGIR	K	S	90.00%	1.98	0.231	0	1	0	0	2	2,011.91	511	529	TRUE	
SNU216_PC3_01	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	1	1	1	0.01%	5.91%	SLEPAENVHGAGGGAFPASQTPSKPASADC	R	G	95.00%	4.14	0.354	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	5	6	0.04%	10.60%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	4.75	0.0835	0	1	0	0	2	2,428.13	618	639	TRUE	
SNU216_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	5	6	0.04%	10.60%	GADNDGSGSESGYTTPK	K	K	95.00%	4.1	0.46	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	5	6	0.04%	10.60%	NDSWGSFDLR	R	A	95.00%	2.2	0.429	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	5	6	0.04%	10.60%	NLSSDEATNPISR	K	V	95.00%	2.92	0.503	0	1	0	0	2	1,483.64	110	122	TRUE	
SNU216_PC3_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	5	5	6	0.04%	10.60%	RTSPQVLGSILK	K	S	95.00%	3.24	0.126	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.55	0.5	0	2	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.24	0.26	0	2	0	0	2	1,994.76	480	498	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	3.75	0.358	0	1	0	0	2	2,042.89	480	499	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	AKAGLESGAEPGDGDSDTTK	K	K	95.00%	4.81	0.508	0	1	1	0	2	1,985.83	478	497	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	AKAGLESGAEPGDGDSDTTKK	K	K	95.00%	3.97	0.29	0	0	1	0	2	2,113.93	478	498	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	EVELVSE	K	-	95.00%	1.82	0.224	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	KRESESESDETPPAAPQLIK	R	K	81.30%	3.06	0.0574	0	1	0	0	2	2,372.04	447	466	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	6.41	0.535	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216_PC3_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	9	10	12	0.08%	14.20%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.06	0.263	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC3_01	GMP synthase	IPI00029079	76,716.70	100.00%	1	1	1	0.01%	1.59%	TLNMTTSPEEK	K	R	95.00%	2.29	0.244	0	1	0	0	2	1,330.56	326	336	TRUE	
SNU216_PC3_01	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	1	1	1	0.01%	4.83%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	3.74	0.451	0	1	0	0	2	2,302.01	351	371	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.40%	2	2	2	0.01%	5.24%	KVTAEADSSSPTGILATSESK	R	S	95.00%	2.39	0.319	0	1	0	0	2	2,159.01	485	505	TRUE	
SNU216_PC3_01	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.40%	2	2	2	0.01%	5.24%	SMPVLGSVSSVTK	K	T	87.60%	1.88	0.247	0	1	0	0	2	1,371.66	506	518	TRUE	
SNU216_PC3_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	6.13	0.431	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216_PC3_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	3.93	0.465	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216_PC3_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	2	2	3	0.02%	3.06%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	3.91	0.277	0	0	0	1	2	3,598.73	873	904	TRUE	
SNU216_PC3_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	2	2	3	0.02%	3.06%	TAQVPSPPR	R	G	95.00%	2.22	0.32	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC3_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	2	2	0.01%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.04	0.529	0	1	0	0	2	2,517.99	234	254	TRUE	
SNU216_PC3_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	2	2	0.01%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.22	0.516	0	1	0	0	2	2,389.89	235	254	TRUE	
SNU216_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	7	7	0.04%	13.90%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.74	0.382	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	7	7	0.04%	13.90%	EKVSSIDLEIDSLSSLLDDMTKNDPFK	R	A	95.00%	7.5	0.449	0	0	1	0	2	3,119.47	149	175	TRUE	
SNU216_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	7	7	0.04%	13.90%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.71	0.36	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	7	7	0.04%	13.90%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	4.62	0.605	0	1	0	0	2	1,912.96	264	282	TRUE	
SNU216_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	7	7	0.04%	13.90%	QHPVPPPAQNQNQVRSPGAPGPLTLK	K	E	95.00%	2.67	0.328	0	0	1	0	2	2,808.43	339	364	TRUE	
SNU216_PC3_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	6	7	7	0.04%	13.90%	SPGAPGPLTLK	K	E	95.00%	1.85	0.357	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	5	5	0.03%	5.99%	DGLAPEKTSPDRDK	R	K	95.00%	3.02	0.453	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	5	5	0.03%	5.99%	EQSEVSVSPR	K	A	95.00%	2.29	0.229	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	5	5	0.03%	5.99%	KEQSEVSVSPR	K	A	95.00%	2.37	0.371	0	1	0	0	2	1,325.61	24	34	TRUE	
SNU216_PC3_01	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	5	5	0.03%	5.99%	KKEQSEVSVSPR	K	A	95.00%	2.62	0.276	0	1	1	0	2	1,453.70	23	34	TRUE	
SNU216_PC3_01	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	4	0.03%	6.79%	EATAQKPTGSVGSTVTTPPPLVR	K	G	95.00%	3.22	0.364	0	0	1	0	2	2,374.20	173	195	TRUE	
SNU216_PC3_01	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	4	0.03%	6.79%	RPPSPDVIVLSDNEQPSSPR	R	V	95.00%	3.91	0.297	0	1	2	0	2	2,430.01	97	116	TRUE	
SNU216_PC3_01	Isoform 1 of Protein C20orf112	IPI00289086,IPI00607558	47,216.00	99.80%	1	1	1	0.01%	3.90%	TTPESPPYSSGSYDSIK	K	T	95.00%	2.72	0.418	0	1	0	0	2	1,895.79	126	142	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.28	0.327	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	EELMSSDLEETAGSTSIPKR	K	K	95.00%	4.66	0	0	2	0	0	2	2,260.01	515	534	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	EEPVSSGPEEAVGK	K	S	95.00%	3.23	0.539	0	2	0	0	2	1,574.60	565	578	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	FSKEEPVSSGPEEAVGK	K	S	95.00%	2.92	0.353	0	1	1	0	2	1,936.80	562	578	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	3.5	0.364	0	3	2	0	2	2,064.89	561	578	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	KSTPKEETVNDPEEAGHR	K	S	95.00%	4.72	0.382	0	0	1	0	2	2,103.93	536	553	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.94	0	0	4	0	0	2	2,569.13	511	533	TRUE	
SNU216_PC3_01	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	12	14	20	0.13%	10.10%	SFSKEELMSSDLEETAGSTSIPKR	K	K	95.00%	4.72	0	0	2	0	0	2	2,709.23	511	534	TRUE	
SNU216_PC3_01	Occludin	IPI00003373,IPI00479078,IP	59,131.50	99.80%	2	2	2	0.01%	8.24%	NVSAGTQDVPSPPSDYVER	K	V	95.00%	3.3	0.303	0	1	0	0	2	2,097.91	300	318	TRUE	
SNU216_PC3_01	Occludin	IPI00003373,IPI00479078,IP	59,131.50	99.80%	2	2	2	0.01%	8.24%	STPVPEVVQELPLTSPVDDFRQPR	K	Y	95.00%	2.84	0.217	0	0	1	0	2	2,786.38	344	367	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	11	14	0.09%	4.84%	EISDDEAEEEK	K	G	95.00%	2.97	0.446	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	11	14	0.09%	4.84%	EKEISDDEAEEEK	R	G	95.00%	2.93	0.375	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	11	14	0.09%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	4.13	0.381	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	11	14	0.09%	4.84%	EREKEISDDEAEEEK	K	G	94.30%	2.82	0.166	0	0	1	0	2	1,915.78	219	233	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	11	14	0.09%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	2.28	0.445	1	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	11	14	0.09%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.64	0.521	0	2	1	0	2	1,817.70	249	264	TRUE	
SNU216_PC3_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	7	11	14	0.09%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	2.76	0.46	0	3	1	0	2	2,025.76	249	265	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	1	2	4	0.03%	6.11%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	7.85	0.173	0	0	3	1	2	3,734.69	135	167	TRUE	
SNU216_PC3_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	2	2	4	0.03%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	3.44	0.413	0	0	2	0	2	1,761.88	280	296	TRUE	
SNU216_PC3_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	2	2	4	0.03%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	3.23	0.431	0	2	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC3_01	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	1	1	1	0.01%	4.32%	AETSEGSGSAPAVPEASASPK	K	Q	95.00%	4.31	0.624	0	1	0	0	2	2,009.87	74	94	TRUE	
SNU216_PC3_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	1	1	0.01%	3.51%	KKSPNELVDDLFK	K	G	95.00%	3.82	0.449	0	1	0	0	2	1,612.80	114	126	TRUE	
SNU216_PC3_01	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.00%	1	1	1	0.01%	1.42%	TPISPLKTGVSKPIVK	K	S	95.00%	4.25	0.366	0	0	1	0	2	1,745.00	320	335	TRUE	
SNU216_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	8	0.05%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.3	0.474	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	8	0.05%	5.81%	AKTQTPPVSPAPQPTEERLPSSPVYEDAASF	R	A	95.00%	3.36	0.29	0	0	2	1	2	3,505.69	360	391	TRUE	
SNU216_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	8	0.05%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.3	0.541	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC3_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	6	8	0.05%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	5.05	0.579	0	0	1	0	2	3,306.56	362	391	TRUE	
SNU216_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.30%	AVTPVPTKTEEVSNLK	R	T	95.00%	2.28	0.322	0	0	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.30%	ETESAPGSPR	K	A	95.00%	1.94	0.425	0	1	0	0	2	1,110.45	514	523	TRUE	
SNU216_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.30%	GLSASLPDLDSENWIEVK	K	K	95.00%	2.9	0.262	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.30%	HSSNPPLESHVGWVMDSR	R	E	95.00%	2.76	0.247	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.30%	QHYQKETESAPGSPR	R	A	95.00%	2.34	0.275	0	1	0	0	2	1,874.75	509	523	TRUE	
SNU216_PC3_01	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.30%	SLPTTVPESPNYR	R	N	95.00%	2.51	0.339	0	2	0	0	2	1,620.67	766	778	TRUE	
SNU216_PC3_01	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.70%	2	2	2	0.01%	8.29%	ETSPQVKGEEMPAGKDQEASR	K	G	95.00%	3.75	0.417	0	0	1	0	2	2,354.03	109	129	TRUE	
SNU216_PC3_01	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.70%	2	2	2	0.01%	8.29%	RAPSSPVAKPGPVK	K	T	94.70%	1.78	0.288	0	1	0	0	2	1,470.78	11	24	TRUE	
SNU216_PC3_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	4	6	6	0.04%	16.60%	AEEKSPISINVK	K	T	95.00%	2.91	0.319	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216_PC3_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	4	6	6	0.04%	16.60%	EVKAEEKSPISINVK	R	T	95.00%	4.05	0.475	0	1	1	0	2	1,750.90	118	132	TRUE	
SNU216_PC3_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	4	6	6	0.04%	16.60%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	4.66	0.43	0	1	1	0	2	2,591.25	92	117	TRUE	
SNU216_PC3_01	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	4	6	6	0.04%	16.60%	QQASKSPYNGVR	R	K	95.00%	2.79	0.353	0	1	0	0	2	1,414.65	142	153	TRUE	
SNU216_PC3_01	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	100.00%	1	1	1	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	3.1	0.292	0	1	0	0	2	1,842.71	375	389	TRUE	
SNU216_PC3_01	septin 9	IPI00748715	63,634.10	100.00%	2	3	3	0.02%	4.75%	HVDSLSQRSPK	R	A	95.00%	2.37	0.405	0	1	1	0	2	1,333.63	59	69	TRUE	
SNU216_PC3_01	septin 9	IPI00748715	63,634.10	100.00%	2	3	3	0.02%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.97	0.479	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC3_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	3.90%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	5.86	0.602	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216_PC3_01	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	3	3	0.02%	3.90%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	4.97	0.438	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216_PC3_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLR	K	K	95.00%	1.8	0.271	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216_PC3_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLRK	K	L	80.10%	2.48	0.2	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216_PC3_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	2	2	2	0.01%	1.42%	SSPNVANQPPSPGGK	R	S	95.00%	2.41	0.256	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216_PC3_01	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	2	2	2	0.01%	1.42%	TSSVVTLEVAK	R	Q	95.00%	2.56	0.308	0	1	0	0	2	1,213.61	1080	1090	TRUE	
SNU216_PC3_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	1	1	1	0.01%	6.19%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.27	0.374	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216_PC3_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	2	2	0.01%	4.86%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	3.81	0.309	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216_PC3_01	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	2	2	0.01%	4.86%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	5.17	0.105	0	1	0	0	2	2,009.92	238	257	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.80%	2	2	2	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	3.33	0.31	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.80%	2	2	2	0.01%	2.59%	MANSSPVLSK	K	V	95.00%	2.05	0.384	0	1	0	0	2	1,113.50	214	223	TRUE	
SNU216_PC3_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	99.80%	2	2	2	0.01%	2.95%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	5.37	0.547	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216_PC3_01	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	99.80%	2	2	2	0.01%	2.95%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.14	0.506	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216_PC3_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	2	2	0.01%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	3.79	0.382	0	0	1	0	2	2,128.94	8	26	TRUE	
SNU216_PC3_01	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	2	2	0.01%	6.97%	VAHEPVAPPEDKESESEAKVDGETASDSESF	R	A	95.00%	3.25	0.203	0	0	1	0	2	3,362.45	8	38	TRUE	
SNU216_PC3_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	5	0.03%	3.54%	SPSPEPIYNSEGKR	R	L	95.00%	2.82	0.279	0	1	0	0	2	1,640.73	204	217	TRUE	
SNU216_PC3_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	5	0.03%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.64	0.112	0	1	0	0	2	2,926.25	191	216	TRUE	
SNU216_PC3_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	5	0.03%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	4	0.242	0	0	2	1	2	3,082.36	191	217	TRUE	
SNU216_PC3_01	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	GEEGSDDDETENGPKPK	K	K	95.00%	2.87	0.433	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216_PC3_01	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	KGSGSEQEGEDEEGGER	R	K	95.00%	2.36	0.451	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216_PC3_01	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	98.80%	1	1	1	0.01%	3.23%	TAPPALPTGYDSEEEEESRPMSYDEKR	K	Q	83.80%	2.68	0.174	0	0	1	0	2	3,164.34	622	648	TRUE	
SNU216_PC3_01	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	2	2	2	0.01%	7.85%	QASEQENEDSMAEAPESNHPEDQETMETI	K	G	95.00%	6.35	0.51	0	0	1	0	2	4,177.64	296	331	TRUE	
SNU216_PC3_01	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	2	2	2	0.01%	7.85%	QASEQENEDSMAEAPESNHPEDQETMETI	K	E	95.00%	5.89	0.528	0	0	0	1	2	4,459.81	296	334	TRUE	
SNU216_PC3_01	Isoform 1 of DNA replication licensing factor MCI	IPI00299904	81,309.00	100.00%	1	1	1	0.01%	2.78%	SRDPGMVRSPQNQYPAELMR	R	R	95.00%	3.46	0.205	0	0	1	0	2	2,412.10	113	132	TRUE	
SNU216_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	6.19%	DMESPTKLDVTLAK	K	D	95.00%	3.64	0.314	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	6.19%	DMSPLSETEMALGK	K	D	95.00%	2.96	0.515	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	6.19%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	5.08	0.488	0	0	1	0	2	3,106.50	533	560	TRUE	
SNU216_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	6.19%	DVTPPPETEVVLIK	K	N	95.00%	2.4	0.322	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	6.19%	ETERASPIKMDLAPSK	K	D	95.00%	3.41	0.324	0	0	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC3_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	6.19%	RASPSKPASAPASR	K	S	95.00%	2.55	0.249	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC3_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	4	4	0.03%	6.89%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.17	0.516	0	1	0	0	2	2,345.83	619	636	TRUE	
SNU216_PC3_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	4	4	0.03%	6.89%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.86	0.471	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216_PC3_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	4	4	0.03%	6.89%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.29	0.432	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC3_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	4	4	4	0.03%	6.89%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3	0.187	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216_PC3_01	Isoform 1 of Ran-binding protein 3	IPI00026337,IPI00456728,IP	60,209.90	99.40%	1	1	1	0.01%	2.82%	VLSPPKLNEVSSDANR	R	E	95.00%	2.87	0.395	0	1	0	0	2	1,805.88	331	346	TRUE	
SNU216_PC3_01	EH-domain-containing protein 1	IPI00017184	60,629.10	100.00%	1	2	3	0.02%	3.37%	DKPTYDEIFYTLSPVNGK	K	I	95.00%	4.65	0.474	0	2	1	0	2	2,167.00	444	461	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	AALAPAKESPR	R	K	93.80%	2.03	0.219	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	AALAPAKESPRK	R	G	95.00%	3.38	0.336	0	0	1	0	2	1,318.69	821	832	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	KLGAGEGGEASVSPEK	K	T	95.00%	3.36	0.375	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.17	0.116	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	KLSGDQPAAR	R	T	95.00%	1.94	0.344	0	1	0	0	2	1,122.53	1271	1280	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	LDSSPSVSSTLAAK	K	D	95.00%	1.85	0.309	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	LGAGEGGEASVSPEK	K	T	95.00%	3.4	0.484	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.83	0.0986	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	SLGNILQAKPTSSPAK	K	G	95.00%	2.77	0.285	0	1	0	0	2	1,691.87	494	509	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	3.58	0.418	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	TSQVGAASAPAKESPR	K	K	95.00%	3.8	0.486	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	TSQVGAASAPAKESPRK	K	G	95.00%	3.33	0.289	0	1	1	0	2	1,764.86	291	307	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	13	15	15	0.10%	7.65%	TVANLLSGKSPR	K	K	95.00%	2.63	0.294	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	99.80%	2	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI	K	H	95.00%	4.6	0.14	0	0	1	1	2	4,001.82	363	400	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	99.80%	2	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.96	0.415	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC3_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	3	3	3	0.02%	2.83%	NRSAEEGELAESK	R	S	95.00%	3.31	0.431	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC3_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	3	3	3	0.02%	2.83%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	4.98	0.461	0	1	0	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC3_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	3	3	3	0.02%	2.83%	VPSSDEEVVEEPQSR	R	R	95.00%	3.64	0.448	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC3_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	5.83%	AAVVTSPPPTTAPHK	R	E	95.00%	2.53	0.443	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC3_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	5.83%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.68	0.477	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC3_01	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	1	1	1	0.01%	1.63%	TEDVMFISDNESFNPSLWEEQRK	R	Q	95.00%	3.99	0.418	0	0	1	0	2	2,881.24	433	455	TRUE	
SNU216_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	6	0.04%	28.20%	AHSSPASLQLGAVSPGTLTPTGVVSGPAAT	R	Q	93.20%	6.48	0.0254	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	6	0.04%	28.20%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.7	0.575	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	6	0.04%	28.20%	ISQSAPVKQPPPLAPQSPQGGVMGGSNSN	R	L	95.00%	6.52	0.366	0	0	1	0	2	3,709.76	235	269	TRUE	
SNU216_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	6	0.04%	28.20%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.89	0.438	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC3_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	6	6	0.04%	28.20%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.23	0.253	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	5	5	0.03%	9.62%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.38	0.438	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	5	5	0.03%	9.62%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.87	0.48	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	5	5	0.03%	9.62%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	3.26	0.358	0	1	0	0	2	2,427.05	378	397	TRUE	
SNU216_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	5	5	0.03%	9.62%	SLSPGKENVSALDMEK	K	E	95.00%	3.46	0.431	0	1	0	0	2	1,784.81	441	456	TRUE	
SNU216_PC3_01	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	5	5	0.03%	9.62%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	4.41	0.418	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216_PC3_01	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.80%	1	2	3	0.02%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.95	0.317	0	1	2	0	2	1,498.67	12	23	TRUE	
SNU216_PC3_01	Isoform 2 of Ena/VASP-like protein	IPI00170979,IPI00218245	44,791.80	99.80%	2	2	2	0.01%	6.01%	SNSVEKPVSSILSR	R	T	95.00%	2.12	0.247	0	1	0	0	2	1,582.78	331	344	TRUE	
SNU216_PC3_01	Isoform 2 of Ena/VASP-like protein	IPI00170979,IPI00218245	44,791.80	99.80%	2	2	2	0.01%	6.01%	TPSVAKSPEAK	R	S	95.00%	2.46	0.266	0	1	0	0	2	1,194.58	345	355	TRUE	
SNU216_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	13	0.08%	19.80%	IVEPEVVGESDSEVEGDAWR	K	M	95.00%	4.62	0.483	0	1	0	0	2	2,281.99	107	126	TRUE	
SNU216_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	13	0.08%	19.80%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	3.67	0.318	0	0	2	0	2	2,410.08	106	126	TRUE	
SNU216_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	13	0.08%	19.80%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	4.1	0.515	0	1	2	0	2	2,786.98	127	147	TRUE	
SNU216_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	13	0.08%	19.80%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	2.81	0.306	0	0	1	0	2	2,642.06	44	64	TRUE	
SNU216_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	13	0.08%	19.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	4.64	0.439	0	0	4	0	2	2,770.16	44	65	TRUE	
SNU216_PC3_01	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	8	13	0.08%	19.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.14	0.579	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216_PC3_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	5	5	0.03%	9.64%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	4.05	0.444	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216_PC3_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	5	5	0.03%	9.64%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	4.35	0.461	0	1	1	0	2	2,857.12	161	187	TRUE	
SNU216_PC3_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	5	5	0.03%	9.64%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.01	0.496	0	0	1	1	2	4,198.92	226	261	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	AEDGATPSPSNETPK	K	K	95.00%	3.59	0.529	0	3	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	AEDGATPSPSNETPKK	K	K	95.00%	3.69	0.37	0	3	1	0	2	1,708.74	137	152	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	AEDGATPSPSNETPKKK	K	K	95.00%	3.84	0.376	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	91.60%	5.63	0.0476	0	0	1	0	2	2,995.27	105	136	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.28	0.432	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	5.37	0.446	0	0	2	1	2	2,899.33	11	39	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.95	0.438	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	TAAKGEAAAERPGEAAVASSPSK	K	A	95.00%	4.65	0.532	0	1	0	0	2	2,236.06	7	29	TRUE	
SNU216_PC3_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	VNGDASPAAAESGAK	K	E	95.00%	2.16	0.345	0	1	0	0	2	1,424.61	40	54	TRUE	
SNU216_PC3_01	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	8.71%	KADGEDAGAESNEEAPGEPSAGSSEEAPGE	R	S	95.00%	5.91	0.105	0	0	1	0	2	4,208.68	93	135	TRUE	
SNU216_PC3_01	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	8.71%	VNDAEPGSPEAPQGK	R	R	95.00%	2.91	0.411	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216_PC3_01	Isoform 1 of Phosphoacetylglucosamine mutase	IPI00030116	59,852.40	99.80%	1	1	2	0.01%	3.69%	STIGVMVTASHNPEEDNGVK	K	L	95.00%	4.39	0.498	0	2	0	0	2	2,164.96	55	74	TRUE	
SNU216_PC3_01	WW domain-containing adapter with a coiled-coi	IPI00010241,IPI00087375,IP	59,504.50	99.80%	2	2	2	0.01%	6.78%	QGPVSQSATQQPVTADKQQGHEPVSPR	K	S	95.00%	3.58	0.301	0	0	1	0	2	2,937.39	384	410	TRUE	
SNU216_PC3_01	WW domain-containing adapter with a coiled-coi	IPI00010241,IPI00087375,IP	59,504.50	99.80%	2	2	2	0.01%	6.78%	RSDSPENKYSDSTGHSK	R	A	95.00%	2.78	0.235	0	0	1	0	2	1,974.82	61	77	TRUE	
SNU216_PC3_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	3	0.02%	5.00%	AVVVSPKEENKAAEPPPPK	K	I	95.00%	3.76	0.461	0	0	1	0	2	2,067.05	336	354	TRUE	
SNU216_PC3_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	2	2	3	0.02%	5.00%	KPSPQPSSPR	K	Q	95.00%	2.2	0.389	0	2	0	0	2	1,240.51	322	331	TRUE	
SNU216_PC3_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	6	0.04%	5.69%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.91	0.118	0	1	2	0	2	2,882.10	701	724	TRUE	
SNU216_PC3_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	6	0.04%	5.69%	SEDESETEDEEEK	R	S	95.00%	2.21	0.43	0	1	0	0	2	1,635.54	668	680	TRUE	
SNU216_PC3_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	6	0.04%	5.69%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	4.42	0.669	0	1	0	0	2	2,607.96	668	688	TRUE	
SNU216_PC3_01	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	6	0.04%	5.69%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	3.57	0.436	0	0	1	0	2	2,764.06	668	689	TRUE	
SNU216_PC3_01	Histone acetyltransferase MYST2	IPI00180764	70,644.50	99.30%	2	2	2	0.01%	4.58%	DMSLKDSGSDLSHRPK	K	R	95.00%	3.03	0.182	0	0	1	0	2	1,852.83	156	171	TRUE	
SNU216_PC3_01	Histone acetyltransferase MYST2	IPI00180764	70,644.50	99.30%	2	2	2	0.01%	4.58%	LSQSSQDSSPVR	R	N	85.50%	2.25	0.23	0	1	0	0	2	1,370.59	49	60	TRUE	
SNU216_PC3_01	far upstream element-binding protein	IPI00375441	67,560.60	100.00%	1	1	1	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	3.95	0.518	0	1	0	0	2	2,661.16	621	644	TRUE	
SNU216_PC3_01	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	3	3	4	0.03%	3.86%	KTGSPGSPGAGGVQSTAK	K	K	95.00%	2.85	0.385	0	2	0	0	2	1,746.75	440	457	TRUE	
SNU216_PC3_01	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	3	3	4	0.03%	3.86%	KTGSPGSPGAGGVQSTAKK	K	S	95.00%	3.25	0.267	0	0	1	0	2	1,794.87	440	458	TRUE	
SNU216_PC3_01	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	3	3	4	0.03%	3.86%	TGSPGSPGAGGVQSTAK	K	K	95.00%	3.04	0.449	0	1	0	0	2	1,618.65	441	457	TRUE	
SNU216_PC3_01	Protein C2orf17	IPI00301294	57,790.20	99.80%	2	2	3	0.02%	3.68%	QALDSEEEEEDVAAK	R	E	95.00%	3.93	0.524	0	2	0	0	2	1,742.70	381	395	TRUE	
SNU216_PC3_01	Protein C2orf17	IPI00301294	57,790.20	99.80%	2	2	3	0.02%	3.68%	QALDSEEEEEDVAAKETLLR	R	L	95.00%	5.25	0.519	0	0	1	0	2	2,355.06	381	400	TRUE	
SNU216_PC3_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	AIGSTSKPQESPK	R	G	95.00%	2.46	0.347	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC3_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	AIGSTSKPQESPKGK	R	R	95.00%	3.42	0.351	0	1	1	0	2	1,594.78	231	245	TRUE	
SNU216_PC3_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.8	0.317	0	1	0	0	2	1,741.93	256	271	TRUE	
SNU216_PC3_01	Protein DEK	IPI00020021	42,675.90	100.00%	2	3	3	0.02%	7.73%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.35	0.674	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216_PC3_01	Protein DEK	IPI00020021	42,675.90	100.00%	2	3	3	0.02%	7.73%	EPEMPGPREESEEEEDEDDEEEEEEEKEK	K	S	95.00%	4.71	0.53	0	0	1	0	2	3,616.33	22	50	TRUE	
SNU216_PC3_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	4	4	4	0.03%	4.51%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	6.54	0.597	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216_PC3_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	4	4	4	0.03%	4.51%	QSQQPMKPISPVKDPVSPASQK	R	M	80.00%	2.98	0.177	0	0	1	0	2	2,537.19	1090	1111	TRUE	
SNU216_PC3_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	4	4	4	0.03%	4.51%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	5.71	0.479	0	0	1	0	2	3,282.51	1464	1495	TRUE	
SNU216_PC3_01	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	4	4	4	0.03%	4.51%	SEDMPFSPK	R	A	95.00%	2.28	0.321	0	1	0	0	2	1,117.43	264	272	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	AATSGVPSIYAPSTYAHLSPAK	K	T	95.00%	3.27	0.129	0	1	0	0	2	2,269.09	295	316	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	AMSEVTSLHEDDWR	R	S	95.00%	3.18	0.382	0	1	0	0	2	1,755.70	411	424	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.43	0.546	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	GPALTPIRDEEWGGHSPR	R	S	95.00%	2.98	0.253	0	0	1	0	2	2,054.94	430	447	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	GPALTPIRDEEWGGHSPRSPR	R	G	95.00%	4.11	0.5	0	0	1	0	2	2,395.13	430	450	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	SRDDLYDQDDSR	R	D	95.00%	2.53	0.294	0	1	0	0	2	1,564.59	511	522	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	SRDDLYDQDDSRDFPR	R	S	95.00%	3.11	0.308	0	1	0	0	2	2,079.84	511	526	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	SRSRDDLYDQDDSR	R	D	95.00%	3.13	0.306	0	1	1	0	2	1,807.72	509	522	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	SSSAGGQGSYVPLLR	R	D	95.00%	2.76	0.313	0	1	0	0	2	1,558.73	344	358	TRUE	
SNU216_PC3_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	10	12	13	0.08%	17.10%	SVDALDDLTPPSTAESGSR	R	S	95.00%	3.64	0.464	0	2	0	0	2	1,997.87	474	492	TRUE	
SNU216_PC3_01	PREDICTED: hypothetical protein LOC114800	IPI00289837	59,974.90	99.30%	2	2	2	0.01%	4.34%	HPHPGSSPETLPK	R	H	85.80%	1.96	0.209	0	1	0	0	2	1,463.67	295	307	TRUE	
SNU216_PC3_01	PREDICTED: hypothetical protein LOC114800	IPI00289837	59,974.90	99.30%	2	2	2	0.01%	4.34%	SASPEHPQKPR	R	A	95.00%	2.03	0.294	0	0	1	0	2	1,313.60	253	263	TRUE	
SNU216_PC3_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	4	6	7	0.04%	10.20%	DVAGATWGNGSGEEEEEEDGPAVLVEQQT	R	Y	95.00%	4.41	0.348	0	0	1	0	2	4,482.87	314	355	TRUE	
SNU216_PC3_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	4	6	7	0.04%	10.20%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.77	0.417	0	2	1	0	2	2,020.82	45	61	TRUE	
SNU216_PC3_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	4	6	7	0.04%	10.20%	ERREEQTDTSDGESVTHHIR	R	R	94.00%	2.66	0.204	0	0	1	0	2	2,462.07	42	61	TRUE	
SNU216_PC3_01	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	4	6	7	0.04%	10.20%	REEQTDTSDGESVTHHIR	R	R	95.00%	4.33	0.397	0	0	1	1	2	2,176.93	44	61	TRUE	
SNU216_PC3_01	Isoform 4 of M-phase inducer phosphatase 2	IPI00029734,IPI00216511,IP	60,757.60	99.80%	2	2	2	0.01%	2.83%	RRSVTPPEEQQEAEEPK	R	A	95.00%	4.14	0.302	0	0	1	0	2	2,089.96	310	326	TRUE	
SNU216_PC3_01	Isoform 4 of M-phase inducer phosphatase 2	IPI00029734,IPI00216511,IP	60,757.60	99.80%	2	2	2	0.01%	2.83%	SVTPPEEQQEAEEPK	R	A	95.00%	2.53	0.425	0	1	0	0	2	1,777.75	312	326	TRUE	
SNU216_PC3_01	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	1	1	1	0.01%	0.95%	VTGPRLVSNHSLHETSSVFVDSLTK	K	A	95.00%	3.91	0.205	0	0	0	1	2	2,790.38	2515	2539	TRUE	
SNU216_PC3_01	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	2	2	0.01%	3.04%	SRSPLELEPEAK	R	K	95.00%	3.46	0.0965	0	1	0	0	2	1,435.68	24	35	TRUE	
SNU216_PC3_01	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	2	2	0.01%	3.04%	SRSPLELEPEAKK	R	L	95.00%	2.76	0.249	0	1	0	0	2	1,563.78	24	36	TRUE	
SNU216_PC3_01	insulin-like growth factor 2 mRNA binding protein	IPI00658000,IPI00746216	64,160.50	100.00%	1	1	1	0.01%	2.25%	DQTPDENDQVVVK	R	I	95.00%	2.96	0.373	0	1	0	0	2	1,566.67	528	540	TRUE	
SNU216_PC3_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	99.90%	2	2	2	0.01%	4.85%	NDLQDTEISPR	K	Q	95.00%	2.19	0.233	0	1	0	0	2	1,367.58	463	473	TRUE	
SNU216_PC3_01	Postreplication repair protein RAD18	IPI00024579	56,195.70	99.90%	2	2	2	0.01%	4.85%	NHLLQFALESPAK	R	S	95.00%	2.75	0.38	0	1	0	0	2	1,547.76	90	102	TRUE	
SNU216_PC3_01	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	4.79	0.458	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	9	0.06%	16.50%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.65	0.495	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	9	0.06%	16.50%	ETPHSPGVEDAPIAK	R	V	95.00%	2.72	0.365	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	9	0.06%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.9	0.491	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	9	0.06%	16.50%	LRSPPEALVQGR	R	Y	95.00%	2.63	0.373	0	1	0	0	2	1,402.72	130	141	TRUE	
SNU216_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	9	0.06%	16.50%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.56	0.441	0	1	0	0	2	1,980.95	350	366	TRUE	
SNU216_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	9	0.06%	16.50%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.47	0.517	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216_PC3_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	9	0.06%	16.50%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	5.5	0.473	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC3_01	Isoform 1 of Tight junction-associated protein 1	IPI00010544,IPI00643168,IP	61,822.20	99.80%	2	2	2	0.01%	5.21%	GSPEEELPLPAFEK	R	L	95.00%	2.51	0.399	0	1	0	0	2	1,622.74	299	312	TRUE	
SNU216_PC3_01	Isoform 1 of Tight junction-associated protein 1	IPI00010544,IPI00643168,IP	61,822.20	99.80%	2	2	2	0.01%	5.21%	KDSLTQAQEQGNLLN	R	-	95.00%	3.53	0.269	0	1	0	0	2	1,738.80	543	557	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	AGLGSPERPPK	R	T	95.00%	2.07	0.249	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	AGLGSPERPPKTSPGSPR	R	L	87.90%	2.33	0.186	0	1	0	0	2	2,030.85	54	71	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	2.94	0.37	0	1	1	0	2	2,635.20	31	53	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	LGGLRPESPESLTSVSR	R	T	95.00%	3.24	0.378	0	1	1	0	2	1,864.92	11	27	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	6.34	0.575	0	2	2	0	2	2,383.10	72	94	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	LQQGAGLESPQGQPEPGAASPQRQQDLHI	R	Q	95.00%	5.7	0.445	0	0	1	1	2	3,714.76	72	105	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	QPEYSPESPR	R	C	95.00%	1.93	0.292	0	1	0	0	2	1,269.51	106	115	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	4.01	0.376	0	1	1	0	2	2,601.17	95	115	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	RALVEFESNPEETREPGSPPSVQR	R	A	89.20%	2.94	0.189	0	0	0	1	2	2,791.30	30	53	TRUE	
SNU216_PC3_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	10	15	17	0.11%	28.90%	RLGGLRPESPESLTSVSR	R	T	95.00%	2.17	0.252	0	1	0	0	2	2,021.02	10	27	TRUE	
SNU216_PC3_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	3	3	3	0.02%	5.53%	RMSADMSEIEAR	K	I	95.00%	2.02	0.262	0	1	0	0	2	1,475.60	387	398	TRUE	
SNU216_PC3_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	3	3	3	0.02%	5.53%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.93	0.509	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216_PC3_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	3	3	3	0.02%	5.53%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	2.94	0.455	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216_PC3_01	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	100.00%	2	3	3	0.02%	5.44%	EKGSETDSAQDQPVK	K	M	95.00%	3.63	0.533	0	1	0	0	2	1,698.72	66	80	TRUE	
SNU216_PC3_01	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	100.00%	2	3	3	0.02%	5.44%	GGLSPANDTGAK	R	K	95.00%	2.13	0.447	1	1	0	0	2	1,167.50	44	55	TRUE	
SNU216_PC3_01	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	1	1	1	0.01%	3.16%	SGSMDPSGAHPSVR	R	Q	95.00%	2.83	0.369	0	1	0	0	2	1,464.59	18	31	TRUE	
SNU216_PC3_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.45	0.444	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216_PC3_01	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLRR	K	A	95.00%	3.59	0.325	0	0	1	0	2	2,265.04	239	258	TRUE	
SNU216_PC3_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	4	0.03%	4.04%	KMEESDEEAVQAK	R	V	95.00%	3.43	0.407	0	2	0	0	2	1,589.64	688	700	TRUE	
SNU216_PC3_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	4	0.03%	4.04%	RYEDDGISDDEIEGKR	R	T	95.00%	2.78	0.33	0	0	1	0	2	1,976.82	21	36	TRUE	
SNU216_PC3_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	4	0.03%	4.04%	SSPGAGPSDHHSASRDER	R	F	95.00%	2.83	0.349	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216_PC3_01	phosphoglucomutase 1	IPI00219526	61,451.10	100.00%	1	2	2	0.01%	4.09%	AIGGIILTASHNPGGPNGDFGIK	K	F	95.00%	3.37	0.34	0	1	1	0	2	2,286.13	108	130	TRUE	
SNU216_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	7	0.04%	8.98%	AAESETPGKSPEK	K	K	95.00%	2.88	0.337	0	0	1	0	2	1,410.62	418	430	TRUE	
SNU216_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	7	0.04%	8.98%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.5	0.512	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	7	0.04%	8.98%	ATNESEDEIPQLVPIGKK	K	T	95.00%	3.33	0.441	0	1	0	0	2	2,048.00	357	374	TRUE	
SNU216_PC3_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	7	0.04%	8.98%	KSPAKSPNPSTPR	K	G	95.00%	3.07	0.336	0	2	1	0	2	1,446.71	391	403	TRUE	
SNU216_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	GRASSHSSQTQGGGSVTKK	R	R	91.60%	3.86	0.123	0	0	1	0	2	2,019.86	400	418	TRUE	
SNU216_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	IRIDSLSAQLSQLQK	R	Q	89.50%	2.55	0.145	0	1	0	0	2	1,779.94	297	311	TRUE	
SNU216_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	NKSNEDQSMGNWQIK	R	R	95.00%	3.84	0.387	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	NKSNEDQSMGNWQIKR	R	Q	95.00%	4.89	0.542	0	0	1	0	2	2,014.88	456	471	TRUE	
SNU216_PC3_01	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	5	5	5	0.03%	11.20%	SGAQASSTPLSPTR	R	I	95.00%	3.27	0.0871	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	LPLVPESPRR	R	M	95.00%	2.18	0.283	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	3.41	0.426	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.16	0.468	0	2	0	0	2	2,008.94	381	399	TRUE	
SNU216_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SQDATFSPGSEQAEK	R	S	95.00%	3.55	0.359	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216_PC3_01	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.46	0.417	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC3_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.30%	2	3	3	0.02%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	4.18	0.497	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216_PC3_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.30%	2	3	3	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	85.70%	3.33	0.172	0	0	0	1	2	2,858.38	8	33	TRUE	
SNU216_PC3_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	6	6	0.04%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.6	0.367	0	1	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC3_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	6	6	0.04%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.54	0.522	0	1	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC3_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	6	6	0.04%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.31	0.563	0	1	1	0	2	1,899.91	474	489	TRUE	
SNU216_PC3_01	Histone deacetylase 2	IPI00289601	55,365.50	100.00%	1	2	7	0.04%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGEI	R	I	95.00%	6.14	0.513	0	0	3	4	2	3,665.55	373	405	TRUE	
SNU216_PC3_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	2	2	0.01%	15.70%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.74	0.531	0	0	1	0	2	3,657.52	143	174	TRUE	
SNU216_PC3_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	2	2	0.01%	15.70%	LNVLEKSSPGHR	R	A	95.00%	2.72	0.221	0	0	1	0	2	1,416.70	111	122	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.37	0.474	0	1	0	0	2	1,617.62	79	92	TRUE	
SNU216_PC3_01	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.78	0.344	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216_PC3_01	CDA02	IPI00012462	67,852.50	100.00%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.69	0.366	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216_PC3_01	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	95.00%	3.42	0.124	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216_PC3_01	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.81	0.501	0	1	1	0	2	2,394.07	428	451	TRUE	
SNU216_PC3_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	GYADSPSKAGAAPYVQAFDSLLAGPVAEYL	R	I	95.00%	4.8	0.442	0	0	1	0	2	3,236.56	29	59	TRUE	
SNU216_PC3_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	PFSAPKPQTSPSPK	K	R	95.00%	3.74	0.381	0	1	0	0	2	1,548.75	298	311	TRUE	
SNU216_PC3_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	PFSAPKPQTSPSPKR	K	A	95.00%	2.48	0.204	0	0	1	0	2	1,704.85	298	312	TRUE	
SNU216_PC3_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	3.7	0.442	0	3	3	0	2	1,917.95	294	311	TRUE	
SNU216_PC3_01	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	5	0.03%	11.30%	EVDPSTGELQSLQMPESEGPSSLDPSQEGPT	K	E	85.40%	5.78	0.0284	0	0	2	0	2	3,606.60	347	380	TRUE	
SNU216_PC3_01	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	5	0.03%	11.30%	LTPVSPESSSTEEK	R	S	93.60%	2.3	0.193	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216_PC3_01	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	5	0.03%	11.30%	SRLTPVSPESSSTEEK	R	S	94.00%	3.42	0.0705	0	2	0	0	2	1,813.82	266	281	TRUE	
SNU216_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	5	0.03%	9.11%	DIEISTEEEKDTGDLK	R	D	95.00%	2.95	0.41	0	1	0	0	2	1,981.79	333	348	TRUE	
SNU216_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	5	0.03%	9.11%	DIEISTEEEKDTGDLKDSSLLK	R	T	95.00%	3.52	0.346	0	1	0	0	2	2,625.15	333	354	TRUE	
SNU216_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	5	0.03%	9.11%	KRSSSEDAESLAPR	R	S	95.00%	3.39	0.265	0	0	1	0	2	1,612.73	296	309	TRUE	
SNU216_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	5	0.03%	9.11%	SRPTSEGSDIESTEPQK	R	Q	95.00%	3.78	0.178	0	1	0	0	2	1,927.83	254	270	TRUE	
SNU216_PC3_01	HDCMA18P protein	IPI00294742	66,900.60	100.00%	5	5	5	0.03%	9.11%	SSSEDAESLAPR	R	S	95.00%	2.96	0.434	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216_PC3_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	3	3	3	0.02%	7.04%	LSSQISAGEEKWNSVSPASAGKR	K	K	95.00%	3.42	0.289	0	0	1	0	2	2,469.18	293	315	TRUE	
SNU216_PC3_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	3	3	3	0.02%	7.04%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	3.43	0.161	0	0	1	0	2	2,152.93	415	432	TRUE	
SNU216_PC3_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	3	3	3	0.02%	7.04%	WNSVSPASAGKR	K	K	94.20%	2.3	0.247	0	1	0	0	2	1,339.62	304	315	TRUE	
SNU216_PC3_01	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	2	3	4	0.03%	3.81%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	4.07	0.408	0	1	2	0	2	2,945.07	432	455	TRUE	
SNU216_PC3_01	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	2	3	4	0.03%	3.81%	GLKEGMNPSYDEYADSDEDQHDAYLER	R	M	95.00%	5.41	0.417	0	0	1	0	2	3,227.28	429	455	TRUE	
SNU216_PC3_01	Isoform 1 of Serine/threonine-protein kinase MAF	IPI00555838,IPI00556171,IP	81,282.60	99.50%	1	1	1	0.01%	1.14%	SRNSPLLER	R	A	90.80%	2.06	0.225	0	1	0	0	2	1,151.56	483	491	TRUE	
SNU216_PC3_01	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,088.20	99.50%	2	4	4	0.03%	6.22%	RRTSDPSAAVNHVSSTTSLGENYEDDDLVN	R	K	89.00%	6.81	0.0164	0	0	1	1	2	4,018.76	21	56	TRUE	
SNU216_PC3_01	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,088.20	99.50%	2	4	4	0.03%	6.22%	RTSDPSAAVNHVSSTTSLGENYEDDDLVNS	R	K	95.00%	5.32	0.0887	0	0	1	1	2	3,862.66	22	56	TRUE	
SNU216_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleoj	IPI00216592	32,338.00	100.00%	3	4	4	0.03%	25.90%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.17	0.525	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleoj	IPI00216592	32,338.00	100.00%	3	4	4	0.03%	25.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	8.28	0.54	0	0	1	1	2	4,277.68	238	275	TRUE	
SNU216_PC3_01	Isoform C1 of Heterogeneous nuclear ribonucleoj	IPI00216592	32,338.00	100.00%	3	4	4	0.03%	25.90%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	3.34	0.283	0	0	1	0	2	2,320.00	211	230	TRUE	
SNU216_PC3_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	3	0.02%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	3.2	0.198	0	1	1	0	2	1,666.81	31	44	TRUE	
SNU216_PC3_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	3	0.02%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	2.88	0.255	0	0	1	0	2	1,911.83	45	62	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	KPSKEMSSDSEYDSDDDR	K	T	95.00%	2.6	0.292	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	KWDGSEEDEDNSKK	K	I	95.00%	3.1	0.244	0	0	1	0	2	1,746.69	160	173	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.25	0.54	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.13	0.324	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216_PC3_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	WDGSEEDEDNSK	K	K	95.00%	2.06	0.312	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216_PC3_01	Isoform 1 of Cleavage and polyadenylation specif	IPI00012998,IPI00030654,IP	63,472.50	100.00%	2	2	2	0.01%	5.44%	EMDTARTPLSEAEFEEIMNR	R	N	95.00%	3.46	0.292	0	0	1	0	2	2,449.04	438	457	TRUE	
SNU216_PC3_01	Isoform 1 of Cleavage and polyadenylation specif	IPI00012998,IPI00030654,IP	63,472.50	100.00%	2	2	2	0.01%	5.44%	SRDRHDDYYR	R	E	95.00%	2.64	0.181	0	1	0	0	2	1,462.59	550	559	TRUE	
SNU216_PC3_01	PREDICTED: hypothetical protein LOC146439	IPI00095032	56,835.20	100.00%	2	2	2	0.01%	8.27%	RDSFLGGGPGPEEPEDLALQLQQK	R	E	95.00%	3.82	0.245	0	0	1	0	2	2,661.26	34	57	TRUE	
SNU216_PC3_01	PREDICTED: hypothetical protein LOC146439	IPI00095032	56,835.20	100.00%	2	2	2	0.01%	8.27%	TSLSPAEILEEKEVEVAK	R	L	95.00%	3.35	0.344	0	1	0	0	2	2,052.02	348	365	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	ASLGSLEGEAEAEASSPK	K	G	95.00%	4.07	0.496	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	4.03	0.343	0	1	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	FKAEAPLPSPK	K	L	95.00%	2.57	0.169	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	GGVTGSPEASISGSK	K	G	95.00%	2.49	0.22	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	GHYEVTGSDDETGK	K	L	95.00%	2.75	0.37	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.51	0.456	0	0	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	GKGGVTGSPEASISGSK	K	G	95.00%	3.45	0.152	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	ISAPNVDFNLEGPK	R	V	95.00%	2.78	0.369	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	ISMQDVDLSLGSPK	K	L	95.00%	2.83	0.292	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	83.30%	5.3	0.0415	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.49	0.089	0	1	0	0	2	2,194.92	2816	2836	TRUE	
SNU216_PC3_01	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	15	0.10%	5.03%	VKTPEMIIQKPK	K	I	95.00%	2.5	0.332	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216_PC3_01	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	KPEDVLDDDDAGSAPLK	R	S	95.00%	3.9	0.299	0	1	0	0	2	1,864.82	234	250	TRUE	
SNU216_PC3_01	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	91.90%	3.37	0.13	0	0	1	0	2	2,020.92	233	250	TRUE	
SNU216_PC3_01	Plastin-2	IPI00010471	70,160.90	100.00%	1	1	1	0.01%	1.92%	GSVSDEEMMELR	R	E	95.00%	2.5	0.404	0	1	0	0	2	1,462.56	3	14	TRUE	
SNU216_PC3_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	2	2	2	0.01%	1.66%	GRSFAGNLNTYK	R	R	95.00%	4.04	0.426	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216_PC3_01	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	2	2	2	0.01%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	2.29	0.317	0	1	0	0	2	1,563.74	384	396	TRUE	
SNU216_PC3_01	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	55,828.60	99.80%	2	3	5	0.03%	5.39%	EKLQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.71	0.617	0	1	3	0	2	2,919.15	41	67	TRUE	
SNU216_PC3_01	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	55,828.60	99.80%	2	3	5	0.03%	5.39%	LQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.46	0.624	0	1	0	0	2	2,662.01	43	67	TRUE	
SNU216_PC3_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	4	4	4	0.03%	5.69%	GFENVIHDKLPLQESEEEER	K	E	95.00%	4.86	0.399	0	0	1	0	2	2,478.12	143	162	TRUE	
SNU216_PC3_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	4	4	4	0.03%	5.69%	GFENVIHDKLPLQESEEEEREER	K	S	95.00%	3.46	0.391	0	0	1	0	2	2,892.31	143	165	TRUE	
SNU216_PC3_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	4	4	4	0.03%	5.69%	LPLQESEEEEREER	K	S	95.00%	2.35	0.266	0	1	0	0	2	1,852.80	152	165	TRUE	
SNU216_PC3_01	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	4	4	4	0.03%	5.69%	RVIGQDHDFSESSEEEAPAEASSGALR	K	S	95.00%	4.11	0.411	0	0	1	0	2	3,034.25	398	424	TRUE	
SNU216_PC3_01	Dihydropyrimidinase-related protein 2	IPI00257508	62,294.00	100.00%	2	3	3	0.02%	3.67%	TSPAKQQAPPVR	K	N	95.00%	2.6	0.368	0	1	1	0	2	1,359.68	521	532	TRUE	
SNU216_PC3_01	Dihydropyrimidinase-related protein 2	IPI00257508	62,294.00	100.00%	2	3	3	0.02%	3.67%	TVTPASSAKTSPAK	K	Q	95.00%	2.48	0.346	0	1	0	0	2	1,425.70	512	525	TRUE	
SNU216_PC3_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	2	2	4	0.03%	7.23%	KEPDDSRDEDEDEDESSEEDSEDEEPPPK	K	R	95.00%	3.39	0.512	0	0	2	0	2	3,618.19	426	454	TRUE	
SNU216_PC3_01	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	2	2	4	0.03%	7.23%	QTPMASSPRPK	K	M	95.00%	2.22	0.307	0	2	0	0	2	1,295.58	150	160	TRUE	
SNU216_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	7	7	0.04%	8.77%	AAGARPLTSPESLSR	K	D	95.00%	2.6	0.335	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	7	7	0.04%	8.77%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	95.00%	3.58	0.19	0	0	0	1	2	2,865.29	88	118	TRUE	
SNU216_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	7	7	0.04%	8.77%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	N	95.00%	4.58	0.132	0	0	0	1	2	3,741.71	88	127	TRUE	
SNU216_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	7	7	0.04%	8.77%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.02	0.349	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	7	7	0.04%	8.77%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.07	0.368	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216_PC3_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	7	7	0.04%	8.77%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.19	0.368	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216_PC3_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	98.60%	1	1	1	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.19	0.437	0	0	1	0	2	2,292.10	632	652	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	6	10	0.06%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPK	K	P	95.00%	5.34	0.524	0	0	1	0	2	2,936.42	217	242	TRUE	
SNU216_PC3_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	6	10	0.06%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPKPR	K	V	95.00%	5.54	0.504	0	0	1	2	2	3,189.57	217	244	TRUE	
SNU216_PC3_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	6	10	0.06%	6.24%	STTPPPAEPVSLPQEPPK	K	P	95.00%	3.36	0.47	0	1	0	0	2	1,951.94	225	242	TRUE	
SNU216_PC3_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	6	10	0.06%	6.24%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.13	0.581	0	2	3	0	2	2,205.10	225	244	TRUE	
SNU216_PC3_01	Isoform 2 of Double-stranded RNA-binding prote	IPI00164481,IPI00300789,IP	34,358.40	99.80%	1	1	1	0.01%	3.16%	GILHLSPDVVQEMEASR	K	H	95.00%	3.42	0.363	0	1	0	0	2	2,024.91	214	230	TRUE	
SNU216_PC3_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	99.80%	2	2	2	0.01%	12.00%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	3.69	0.368	0	0	1	0	2	2,990.20	334	361	TRUE	
SNU216_PC3_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	99.80%	2	2	2	0.01%	12.00%	MAPEEDAGGEALGGSFWEAGNYR	-	R	95.00%	2.51	0.294	0	0	1	0	2	2,494.00	1	23	TRUE	
SNU216_PC3_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	3	3	0.02%	12.20%	ATSRGSNSGMDSNIDLTIVEDEEEESVALEQ	K	V	91.70%	6.81	0.0111	0	0	1	0	2	3,732.64	359	392	TRUE	
SNU216_PC3_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	3	3	0.02%	12.20%	ISSGKSSPFKVSPLTFGR	K	K	93.90%	3.56	0.0559	0	1	0	0	2	2,054.97	282	299	TRUE	
SNU216_PC3_01	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	3	3	0.02%	12.20%	SSPFKVSPLTFGR	K	K	95.00%	2.55	0.194	0	1	0	0	2	1,502.74	287	299	TRUE	
SNU216_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	9	0.06%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.45	0.593	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	9	0.06%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.36	0.409	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC3_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	9	0.06%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.41	0.632	0	0	2	4	2	3,735.89	46	80	TRUE	
SNU216_PC3_01	Isoform 1 of Myoferlin	IPI00021048	234,715.60	99.80%	1	1	1	0.01%	0.53%	HTIIPAKSPEK	R	C	95.00%	2.77	0.511	0	1	0	0	2	1,300.67	1908	1918	TRUE	
SNU216_PC3_01	Something about silencing protein 10	IPI00006900	54,559.20	100.00%	1	1	2	0.01%	7.52%	AGPTLTDENGDDLGLPPSPGDTSYYQDQVI	K	S	95.00%	6.31	0.136	0	0	2	0	2	3,972.67	20	55	TRUE	
SNU216_PC3_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	4.20%	GLLYDSDEEDEERPAR	R	K	95.00%	2.93	0.235	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216_PC3_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	4.20%	GNDPLTSSPGR	R	S	95.00%	2.41	0.314	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC3_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	4.20%	RTDALTSSPGR	R	D	95.00%	2.3	0.231	0	1	0	0	2	1,240.57	34	44	TRUE	
SNU216_PC3_01	Isoform 5 of Brain-specific angiogenesis inhibitor	IPI00180292,IPI00185159,IP	59,015.40	99.80%	2	2	2	0.01%	4.42%	NSYATTENKTLPR	K	S	89.10%	1.98	0.217	0	1	0	0	2	1,574.72	351	363	TRUE	
SNU216_PC3_01	Isoform 5 of Brain-specific angiogenesis inhibitor	IPI00180292,IPI00185159,IP	59,015.40	99.80%	2	2	2	0.01%	4.42%	SLSPPQSQSK	K	L	95.00%	1.86	0.312	0	1	0	0	2	1,138.51	323	332	TRUE	
SNU216_PC3_01	Hypothetical protein 101F10.1	IPI00554560,IPI00746731	51,590.30	100.00%	3	3	3	0.02%	7.86%	KSPLAMSHASGVKTSPDPR	K	Q	95.00%	3.46	0.261	0	0	1	0	2	2,045.98	118	136	TRUE	
SNU216_PC3_01	Hypothetical protein 101F10.1	IPI00554560,IPI00746731	51,590.30	100.00%	3	3	3	0.02%	7.86%	SPLAMSHASGVKTSPDPR	K	Q	95.00%	4.48	0.439	0	0	1	0	2	1,917.89	119	136	TRUE	
SNU216_PC3_01	Hypothetical protein 101F10.1	IPI00554560,IPI00746731	51,590.30	100.00%	3	3	3	0.02%	7.86%	YSVLNNDDVFADVSPLR	R	A	95.00%	2.88	0.258	0	1	0	0	2	2,067.91	29	45	TRUE	
SNU216_PC3_01	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	99.80%	1	1	1	0.01%	2.81%	MEVGPFSTGQESPTAENAR	R	L	95.00%	3.53	0.235	0	1	0	0	2	2,087.87	606	624	TRUE	
SNU216_PC4_01	Poly(rC)-binding protein 1	IPI00016610	37,498.20	100.00%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	3.96	0.239	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216_PC4_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	5.07%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.71	0.428	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC4_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	5.07%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.65	0.378	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216_PC4_01	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	3	3	3	0.02%	5.07%	EVELVSE	K	-	95.00%	1.95	0.169	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216_PC4_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.83	0.327	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216_PC4_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.61	0.431	0	2	2	0	2	1,767.78	38	56	TRUE	
SNU216_PC4_01	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	7	0.04%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.59	0.322	0	1	1	0	2	2,132.89	38	58	TRUE	
SNU216_PC4_01	syntaxin 7	IPI00289876,IPI00552913	29,815.60	99.80%	1	1	1	0.01%	5.75%	ASSRVSGSFPEDSSK	R	E	95.00%	3.33	0.283	0	1	0	0	2	1,620.69	124	138	TRUE	
SNU216_PC4_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	5	0.03%	17.60%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.07	0.524	0	0	3	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216_PC4_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	5	0.03%	17.60%	HASPILPITEFSDIPR	K	R	95.00%	2.65	0.192	0	1	0	0	2	1,872.93	304	319	TRUE	
SNU216_PC4_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	5	0.03%	17.60%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	5.02	0.326	0	1	3	0	2	2,623.08	174	195	TRUE	
SNU216_PC4_01	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	5	0.03%	17.60%	SSTPLPTISSSAENTR	R	Q	95.00%	2.82	0.172	0	1	0	0	2	1,727.78	158	173	FALSE	IPI00216230
SNU216_PC4_01	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	2	3	0.02%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	5.99	0.469	0	0	1	2	2	3,901.66	12	44	TRUE	
SNU216_PC4_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	GPTPPAMGPR	R	D	95.00%	2.23	0.478	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216_PC4_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	PAPPQEESPSSEAK	R	S	95.00%	2.78	0.31	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216_PC4_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	4.33	0.057	0	2	1	0	2	1,989.93	111	129	TRUE	
SNU216_PC4_01	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.83	0.437	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC4_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	4	0.02%	3.38%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	4.43	0.405	0	1	1	0	2	2,017.81	298	317	TRUE	
SNU216_PC4_01	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	4	0.02%	3.38%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.97	0.491	0	2	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.80%	2	3	3	0.02%	2.95%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3.42	0.428	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.80%	2	3	3	0.02%	2.95%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.34	0.433	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216_PC4_01	Pyruvate dehydrogenase E1 component alpha sul	IPI00306301	43,296.50	99.80%	1	2	3	0.02%	3.59%	YHGHSMSDPGVSYR	R	T	95.00%	3.21	0.264	0	1	2	0	2	1,672.66	289	302	TRUE	
SNU216_PC4_01	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.80%	2	2	2	0.01%	5.09%	ASSASVPAVGASAEGTR	R	R	95.00%	3.18	0.526	0	1	0	0	2	1,597.72	167	183	TRUE	
SNU216_PC4_01	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.80%	2	2	2	0.01%	5.09%	LGSYSGPTSVSR	R	Q	95.00%	2.42	0.293	0	1	0	0	2	1,290.57	187	198	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	AGLGSPERPPK	R	T	95.00%	2.08	0.249	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.19	0.268	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	LGGLRPESPESLTSVSR	R	T	95.00%	2.88	0.158	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	5	5	0.03%	20.60%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.03	0.52	0	1	1	0	2	2,383.10	72	94	TRUE	
SNU216_PC4_01	Septin-2	IPI00014177	41,488.20	100.00%	2	4	4	0.02%	5.54%	IYHLPDAESDEDEDFK	K	E	95.00%	3.34	0.48	0	1	0	0	2	2,002.80	210	225	TRUE	
SNU216_PC4_01	Septin-2	IPI00014177	41,488.20	100.00%	2	4	4	0.02%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.35	0.36	0	1	1	1	2	2,517.05	210	229	TRUE	
SNU216_PC4_01	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	99.80%	1	1	1	0.01%	1.90%	AVVVSPKEENK	R	A	95.00%	1.95	0.305	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216_PC4_01	Hypothetical protein C12orf43	IPI00100930	28,257.70	99.80%	1	1	1	0.01%	8.75%	EAAVSASDILQESAIHSPGTVEK	R	E	95.00%	3.75	0.274	0	0	1	0	2	2,419.14	164	186	TRUE	
SNU216_PC4_01	Calnexin precursor	IPI00020984	67,570.20	100.00%	1	1	2	0.01%	3.21%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.35	0.571	0	2	0	0	2	2,188.85	552	570	TRUE	
SNU216_PC4_01	Isoform 1 of Nucleolar protein 7	IPI00007729	29,426.90	99.80%	1	1	1	0.01%	5.84%	LTTASQTNIKKSPGK	K	V	95.00%	2.43	0.269	0	1	0	0	2	1,653.86	122	136	TRUE	
SNU216_PC4_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.96%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.34	0.0738	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC4_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.96%	VAIIRTPPKSPATPK	K	Q	95.00%	2.53	0.304	0	0	1	0	2	1,655.92	1644	1658	TRUE	
SNU216_PC4_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.96%	VDHGAEIITQSPGR	R	S	95.00%	3.89	0.501	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC4_01	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	100.00%	1	2	2	0.01%	2.77%	EKQSSEEEEKETR	K	G	95.00%	2.68	0.308	0	1	1	0	2	1,768.67	272	284	TRUE	
SNU216_PC4_01	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	DSLSPVLHPSDLILTR	K	G	95.00%	2.92	0.312	0	1	1	0	2	1,842.94	311	326	TRUE	
SNU216_PC4_01	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	GTLDEEDEEADSDTDDIDHR	R	V	95.00%	4.59	0.497	0	1	1	0	2	2,356.86	327	346	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	GGMGSGGLATGIAGGLAGMGGIQNEKETN	R	L	95.00%	7.24	0.538	0	0	1	0	2	3,415.54	56	90	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	LLEDGEDFNLGDALDSSNSMQTIQK	R	T	95.00%	4.92	0.398	0	0	1	0	2	2,820.23	390	414	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	PVSSAASVYAGAGGSGSR	R	I	95.00%	3.08	0.453	0	1	1	0	2	1,660.73	28	45	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	QSVENDIHGLRK	R	V	95.00%	2.21	0.354	0	0	1	0	2	1,475.70	176	187	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	SLGSVQAPSYGARPVSSAASVYAGAGGSGS	R	I	95.00%	3.13	0.239	0	0	1	0	2	2,934.37	15	45	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	E	95.00%	5.28	0.0019	0	1	0	0	2	2,919.35	51	81	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	8.16	0.0012	0	0	2	1	2	3,993.83	51	90	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	TVQSLEIDLDSMR	R	N	95.00%	2.67	0.267	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	9	11	12	0.07%	29.70%	VRSLETENR	R	R	95.00%	2.39	0.308	0	1	0	0	2	1,183.55	98	106	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.52	0.343	0	0	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC4_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	4.2	0.347	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC4_01	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	NSLTGEEGQLAR	R	V	95.00%	2.28	0.328	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216_PC4_01	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	RNSLTGEEGQLAR	R	V	95.00%	3.21	0.312	0	1	0	0	2	1,510.70	110	122	TRUE	
SNU216_PC4_01	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.90%	2	2	2	0.01%	7.67%	EMPQDLRSPAR	K	T	95.00%	2.43	0.29	0	1	0	0	2	1,379.61	70	80	TRUE	
SNU216_PC4_01	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.90%	2	2	2	0.01%	7.67%	SPARTPPSEEDSAEAER	R	L	95.00%	2.35	0.237	0	1	0	0	2	1,908.80	77	93	TRUE	
SNU216_PC4_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	DYDEEEQGYDSEKEK	R	K	95.00%	2.63	0.275	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC4_01	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	SKTPPKSYSTAR	R	R	95.00%	2.72	0.323	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216_PC4_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	3	4	0.02%	3.20%	DHSPTPSVFNSDEER	R	Y	95.00%	2.96	0.488	0	2	0	0	2	1,796.71	490	504	TRUE	
SNU216_PC4_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	3	4	0.02%	3.20%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.16	0.219	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC4_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	3	3	4	0.02%	3.20%	ERDHSPTPSVFNSDEERYR	R	Y	95.00%	3.19	0.205	0	0	1	0	2	2,480.99	488	506	TRUE	
SNU216_PC4_01	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	6	0.04%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	4.9	0.45	0	1	1	0	2	2,186.95	50	68	TRUE	
SNU216_PC4_01	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	6	0.04%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.25	0.389	0	2	2	0	2	1,764.73	99	114	TRUE	
SNU216_PC4_01	Ribonucleoside-diphosphate reductase M2 subun	IPI00011118	51,094.50	99.80%	1	1	1	0.01%	4.01%	VPLAPITDPQQLQLSPLK	R	G	95.00%	3.69	0.418	0	1	0	0	2	2,038.10	66	83	TRUE	
SNU216_PC4_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	2.88%	EVSDSEAGGGPQGER	R	K	95.00%	3.22	0.489	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC4_01	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	2.88%	EVSDSEAGGGPQGERK	R	N	95.00%	2.14	0.309	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216_PC4_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	99.70%	2	2	2	0.01%	7.59%	IGEGTYGVVYK	K	G	93.20%	2.23	0.193	0	1	0	0	2	1,345.55	10	20	TRUE	IPI00031681
SNU216_PC4_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	99.70%	2	2	2	0.01%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.6	0.194	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216_PC4_01	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.90%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPR	R	R	95.00%	2.88	0.428	0	1	0	0	2	1,578.68	551	565	TRUE	
SNU216_PC4_01	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.90%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPRR	R	T	95.00%	3.14	0.424	0	1	0	0	2	1,734.78	551	566	TRUE	
SNU216_PC4_01	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	ANSALTPPKPESGLTLQESNTPGLR	R	Q	95.00%	4.27	0.37	0	0	1	0	2	2,658.31	451	475	TRUE	
SNU216_PC4_01	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	SGVGLSSYLSTEKDASPK	R	T	95.00%	4.12	0.459	0	1	0	0	2	1,905.88	487	504	TRUE	
SNU216_PC4_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	DSENLASPSEYPENGER	R	F	95.00%	3.19	0.345	0	1	0	0	2	1,973.78	617	633	TRUE	
SNU216_PC4_01	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	2	2	0.01%	1.91%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.76	0.332	0	1	0	0	2	1,971.75	883	898	TRUE	
SNU216_PC4_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	3	3	0.02%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	3.07	0.361	0	1	1	0	2	1,761.88	280	296	TRUE	
SNU216_PC4_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	3	3	0.02%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	3.45	0.319	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC4_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	5	0.03%	6.85%	KTAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.73	0.524	0	0	1	0	2	2,905.25	133	157	TRUE	
SNU216_PC4_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	5	0.03%	6.85%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	6.52	0.547	0	1	2	1	2	2,777.16	134	157	TRUE	
SNU216_PC4_01	Nucleoporin NUP53	IPI00329650	34,774.50	99.80%	2	2	2	0.01%	6.13%	SPLLAGGSPPQPVVPAHK	R	D	95.00%	3.35	0.461	0	1	0	0	2	1,831.95	66	83	TRUE	
SNU216_PC4_01	Nucleoporin NUP53	IPI00329650	34,774.50	99.80%	2	2	2	0.01%	6.13%	SPLLAGGSPPQPVVPAHKDK	R	S	95.00%	3.61	0.39	0	0	1	0	2	2,075.07	66	85	TRUE	
SNU216_PC4_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	99.80%	2	2	2	0.01%	0.98%	RVPSPTPAPK	K	E	95.00%	2.57	0.328	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC4_01	splicing coactivator subunit SRm300	IPI00748920	299,621.60	99.80%	2	2	2	0.01%	0.98%	THTTALAGRSPSPASGR	K	R	95.00%	2.47	0.264	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC4_01	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	5	8	0.05%	5.47%	FTDKDQQPSGSEGEDDDAEAALK	K	K	95.00%	4.17	0.638	0	1	1	0	2	2,612.99	164	186	TRUE	
SNU216_PC4_01	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	5	8	0.05%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.56	0.513	0	1	4	1	2	2,741.09	164	187	TRUE	
SNU216_PC4_01	Isoform 1 of 26S protease regulatory subunit 6B	IPI00020042,IPI00738042	47,367.70	100.00%	1	1	1	0.01%	7.89%	AQDEIPALSVSRPQTGLSFLGPEPEDLEDLYS	K	Y	95.00%	5.08	0.502	0	0	1	0	2	3,709.76	11	43	TRUE	
SNU216_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	3.73%	GSPTSAYPER	K	K	87.60%	1.85	0.258	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	3.73%	RGSLTLTISGESPK	R	A	95.00%	3.22	0.434	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	3.73%	RLSLGQGDSTEAATEER	R	G	95.00%	3.95	0.415	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC4_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	5	5	0.03%	3.73%	RLSLGQGDSTEAATEERGPR	R	A	82.10%	2.55	0.177	0	0	1	0	2	2,210.02	1001	1020	TRUE	
SNU216_PC4_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	99.90%	2	2	2	0.01%	3.95%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.41	0.385	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC4_01	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	99.90%	2	2	2	0.01%	3.95%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.17	0.332	0	0	1	0	2	3,176.48	936	963	TRUE	
SNU216_PC4_01	CDNA FLJ34719 fis, clone MESAN2005689, weakly	IPI00171390	37,477.60	100.00%	1	1	1	0.01%	8.33%	VSALEEDMDDVESSEEEEEEDEKLER	R	V	95.00%	4.27	0.325	0	0	1	0	2	3,230.20	181	206	TRUE	
SNU216_PC4_01	Isoform 1 of Wilms' tumor 1-associating protein	IPI00220302	44,243.40	99.80%	1	1	1	0.01%	4.55%	EGNTTEDDFPSSPGNGNK	R	S	95.00%	3.2	0.392	0	1	0	0	2	1,945.75	295	312	TRUE	
SNU216_PC4_01	136 kDa protein	IPI00005625	135,683.90	100.00%	3	3	3	0.02%	2.93%	GEEGSDDDETENGPKPK	K	K	95.00%	3.7	0.353	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216_PC4_01	136 kDa protein	IPI00005625	135,683.90	100.00%	3	3	3	0.02%	2.93%	KGSGSEQEGEDEEGGER	R	K	95.00%	3.04	0.498	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216_PC4_01	136 kDa protein	IPI00005625	135,683.90	100.00%	3	3	3	0.02%	2.93%	RKGSGSEQEGEDEEGGER	R	K	95.00%	2.47	0.401	0	1	0	0	2	2,095.76	960	977	TRUE	
SNU216_PC4_01	Isoform 1 of Acyl-coenzyme A oxidase 1, peroxiso	IPI00296907,IPI00477729	74,687.50	99.90%	1	1	1	0.01%	3.33%	ERDSASFNPELLTHILDGSPEK	R	T	95.00%	4.26	0.337	0	0	1	0	2	2,535.18	8	29	TRUE	
SNU216_PC4_01	PREDICTED: hypothetical protein LOC79649 isofo	IPI00386897,IPI00440241,IP	93,713.40	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	3.1	0.308	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216_PC4_01	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.93	0.543	0	2	0	0	2	1,617.62	79	92	TRUE	
SNU216_PC4_01	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.59	0.252	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216_PC4_01	CDNA FLJ40432 fis, clone TESTI2039227	IPI00185371	33,453.40	99.80%	2	2	2	0.01%	4.50%	RSFSADNFIGIQR	R	S	95.00%	2.47	0.261	0	1	0	0	2	1,590.74	271	283	TRUE	
SNU216_PC4_01	CDNA FLJ40432 fis, clone TESTI2039227	IPI00185371	33,453.40	99.80%	2	2	2	0.01%	4.50%	SFSADNFIGIQR	R	S	95.00%	3.22	0.422	0	1	0	0	2	1,434.64	272	283	TRUE	
SNU216_PC4_01	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	5	0.03%	10.30%	ELTDEEAER	K	L	95.00%	2.21	0.355	0	1	0	0	2	1,171.45	106	114	TRUE	
SNU216_PC4_01	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	5	0.03%	10.30%	NGSLDSPGKQDTEEDEEEDEKDK	K	G	95.00%	5.67	0.462	0	0	3	0	2	2,674.05	134	156	TRUE	
SNU216_PC4_01	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	5	0.03%	10.30%	QDTEEDEEEDEKDKGK	K	L	95.00%	3.47	0.463	0	0	1	0	2	2,003.76	143	158	TRUE	
SNU216_PC4_01	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	50,761.70	99.80%	2	3	3	0.02%	6.41%	RFTPPSTALSPGK	R	M	95.00%	2.2	0.239	0	1	0	0	2	1,438.71	12	24	TRUE	
SNU216_PC4_01	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	50,761.70	99.80%	2	3	3	0.02%	6.41%	TAMRVSPHHPAPTPNPR	R	A	95.00%	2.95	0.252	0	0	1	1	2	1,945.92	207	223	TRUE	
SNU216_PC4_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	4	6	0.04%	11.80%	RGDSESEEEDEQDSEEVR	R	L	95.00%	3.02	0.408	0	2	0	0	2	2,155.73	12	28	TRUE	
SNU216_PC4_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	4	6	0.04%	11.80%	RRGDSESEEEDEQDSEEVR	R	L	95.00%	3.86	0.525	0	1	1	0	2	2,311.83	11	28	TRUE	
SNU216_PC4_01	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	4	6	0.04%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	3.58	0.315	0	0	2	0	2	1,887.86	250	265	TRUE	
SNU216_PC4_01	Brix domain-containing protein 2	IPI00181728	41,403.00	99.80%	1	1	1	0.01%	6.80%	IFQGSFGGPTLYENPHYQSPNMHR	K	R	95.00%	3.69	0.27	0	0	1	0	2	2,857.26	243	266	TRUE	
SNU216_PC4_01	Adhesion-regulating molecule 1 precursor	IPI00033030,IPI00470921	42,154.30	100.00%	1	1	1	0.01%	3.93%	SQSAAVTPSSTTSSTR	R	A	95.00%	3.02	0.24	0	1	0	0	2	1,647.72	211	226	TRUE	
SNU216_PC4_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	83.70%	2.63	0.105	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC4_01	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.25	0.285	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC4_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,747.30	99.80%	2	2	2	0.01%	0.74%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.16	0.443	0	0	1	0	2	2,287.98	296	317	TRUE	
SNU216_PC4_01	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,747.30	99.80%	2	2	2	0.01%	0.74%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	4.6	0.396	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216_PC4_01	Twinfilin-2	IPI00550917	39,548.90	100.00%	1	1	1	0.01%	3.44%	LIRGPGENGDDS	R	-	95.00%	2.17	0.299	0	1	0	0	2	1,309.54	338	349	TRUE	
SNU216_PC4_01	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	DSLGDFIEHYAQLGPSSPEQLAAGAEEGGG	R	R	95.00%	5.61	0.52	0	0	1	1	2	3,335.49	84	115	TRUE	
SNU216_PC4_01	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	RGGGSGGGEESEGEEVDED	R	-	95.00%	3.22	0.506	0	1	0	0	2	1,931.68	293	311	TRUE	
SNU216_PC4_01	Isoform 2 of ERC protein 2	REVERSE_IPI00456707-R,RE	110,561.70	99.10%	1	1	1	0.01%	1.24%	KQEIAIELSKLK	K	S	95.00%	3.12	0.159	0	0	1	0	2	1,479.82	284	295	TRUE	
SNU216_PC4_01	calcium/calmodulin-dependent protein kinase II d	IPI00172636	54,129.20	99.80%	2	2	2	0.01%	4.60%	ESTESSNTTIEDEDVK	K	A	95.00%	3.08	0.335	0	1	0	0	2	1,863.74	329	344	TRUE	
SNU216_PC4_01	calcium/calmodulin-dependent protein kinase II d	IPI00172636	54,129.20	99.80%	2	2	2	0.01%	4.60%	KPDGVKESTESSNTTIEDEDVK	K	A	95.00%	4.47	0.362	0	0	1	0	2	2,488.10	323	344	TRUE	
SNU216_PC4_01	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.80%	2	3	3	0.02%	6.46%	GTGQSDDSDIWDDTALIK	R	A	95.00%	2.79	0.256	0	1	0	0	2	2,096.81	24	41	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.80%	2	3	3	0.02%	6.46%	RGTGQSDDSDIWDDTALIK	R	A	95.00%	4.44	0.473	0	1	1	0	2	2,172.95	23	41	TRUE	
SNU216_PC4_01	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	2	2	0.01%	8.68%	LSLEGDHSTPPSAYGSVK	K	A	95.00%	4.38	0.0384	0	1	0	0	2	1,924.87	29	46	TRUE	
SNU216_PC4_01	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	2	2	2	0.01%	8.68%	SYSPYDMLESIRK	K	E	95.00%	2.62	0.359	0	1	0	0	2	1,668.73	252	264	TRUE	
SNU216_PC4_01	Isoform 1 of Krueppel-like factor 3	IPI00027726	38,828.70	99.80%	2	2	2	0.01%	8.41%	RASPGLSMPSSSPPIKK	R	Y	95.00%	2.56	0.318	0	0	1	0	2	1,819.91	90	106	TRUE	
SNU216_PC4_01	Isoform 1 of Krueppel-like factor 3	IPI00027726	38,828.70	99.80%	2	2	2	0.01%	8.41%	RPLPVESPDTQR	K	K	95.00%	2.64	0.378	0	1	0	0	2	1,474.71	244	255	TRUE	
SNU216_PC4_01	Synapse-associated protein 1	IPI00059242	39,933.40	100.00%	1	1	1	0.01%	1.99%	TPPVVIK	K	S	87.90%	1.56	0.151	1	0	0	0	2	833.4534	248	254	TRUE	
SNU216_PC4_01	Fructose-bisphosphate aldolase A	IPI00465439	39,289.40	100.00%	1	1	2	0.01%	4.13%	GILAADESTGSIAKR	K	L	95.00%	2.62	0.315	0	2	0	0	2	1,568.77	28	42	TRUE	
SNU216_PC4_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	3	4	0.02%	7.86%	IRDWHLKQSPASPER	K	D	95.00%	3.72	0.34	0	0	1	0	2	1,899.92	136	150	TRUE	
SNU216_PC4_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	3	4	0.02%	7.86%	MIGFPSSAGSVSPR	K	S	95.00%	2.46	0.33	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216_PC4_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	3	3	4	0.02%	7.86%	QSPASPERDYSPYYK	K	T	95.00%	2.99	0.155	0	1	0	0	2	1,867.79	143	157	TRUE	
SNU216_PC4_01	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.30%	1	1	1	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	85.90%	2.13	0.221	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216_PC4_01	Isoform DFF45 of DNA fragmentation factor alph	IPI00010882	36,522.50	99.80%	2	2	2	0.01%	5.14%	ASPPGDLQNPK	K	R	95.00%	2	0.337	0	1	0	0	2	1,203.54	314	324	TRUE	
SNU216_PC4_01	Isoform DFF45 of DNA fragmentation factor alph	IPI00010882	36,522.50	99.80%	2	2	2	0.01%	5.14%	SISASKASPPGDLQNPK	R	R	95.00%	3.75	0.403	0	1	0	0	2	1,776.85	308	324	TRUE	
SNU216_PC4_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	8.06%	NQGGYGGSSSSSSYGSGR	R	R	81.00%	3.7	0.0067	0	1	0	0	2	1,774.67	353	370	TRUE	
SNU216_PC4_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	8.06%	SESPKEPEQLRK	K	L	95.00%	2.95	0.334	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216_PC4_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	4	5	0.03%	6.69%	KTEMDKSPFNSPSPQDSPR	K	L	95.00%	4.72	0.41	0	0	1	0	2	2,227.97	327	345	TRUE	
SNU216_PC4_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	4	5	0.03%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	3.16	0.358	0	2	0	0	2	1,857.81	312	327	TRUE	
SNU216_PC4_01	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	4	5	0.03%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.15	0.504	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	100.00%	1	1	2	0.01%	5.82%	SSGSPYGGGYGSGGGSGGYGSR	R	R	93.20%	4.22	0.0065	0	2	0	0	2	1,990.76	355	376	TRUE	
SNU216_PC4_01	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	3	0.02%	10.80%	KYGGSVGSQPPPVAPEPGPVPSSPSQEPPTI	K	E	95.00%	6.73	0.545	0	0	1	1	2	3,291.61	178	209	TRUE	
SNU216_PC4_01	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	100.00%	2	3	3	0.02%	10.80%	YGGSVGSQPPPVAPEPGPVPSSPSQEPPTKI	K	E	95.00%	7.24	0.513	0	0	1	0	2	3,163.51	179	209	TRUE	
SNU216_PC4_01	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	1	1	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	95.00%	3.63	0.43	0	0	1	0	2	2,531.23	30	50	TRUE	
SNU216_PC4_01	Tumor necrosis factor receptor superfamily memt	IPI00004413	71,845.00	99.90%	2	3	3	0.02%	6.72%	EVAAFSNGYTADHERAYAALQHWTIR	R	G	95.00%	4.03	0.203	0	0	0	1	2	3,137.37	444	469	TRUE	
SNU216_PC4_01	Tumor necrosis factor receptor superfamily memt	IPI00004413	71,845.00	99.90%	2	3	3	0.02%	6.72%	LENSALLTVEPSPQDKNK	K	G	95.00%	3.14	0.319	0	1	1	0	2	2,063.01	530	547	TRUE	
SNU216_PC4_01	p21-activated kinase 2	IPI00419979	58,044.10	99.80%	2	2	2	0.01%	10.10%	GTEAPAVVTEEEDDDEETAPPVIAPRPDHTK	K	S	95.00%	5.1	0.488	0	0	1	0	2	3,395.52	161	191	TRUE	
SNU216_PC4_01	p21-activated kinase 2	IPI00419979	58,044.10	99.80%	2	2	2	0.01%	10.10%	YLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.02	0.359	0	1	0	0	2	2,417.14	139	160	TRUE	
SNU216_PC4_01	28 kDa protein	IPI00063387	28,278.70	99.80%	2	2	2	0.01%	7.91%	RTPAPPEPGSPAPGEGPSGR	R	K	95.00%	4.74	0.57	0	1	0	0	2	1,993.91	171	190	TRUE	
SNU216_PC4_01	28 kDa protein	IPI00063387	28,278.70	99.80%	2	2	2	0.01%	7.91%	TPAPPEPGSPAPGEGPSGR	R	K	95.00%	3.56	0.441	0	1	0	0	2	1,837.81	172	190	TRUE	
SNU216_PC4_01	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.90%	2	2	3	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.93	0.25	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216_PC4_01	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.90%	2	2	3	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	3.78	0.496	0	2	0	0	2	2,056.96	75	92	TRUE	
SNU216_PC4_01	PREDICTED: similar to basic leucine zipper and W	IPI00005681	34,091.00	100.00%	1	1	1	0.01%	4.70%	NAEEESESEAEEGD	K	-	95.00%	2.48	0.385	0	1	0	0	2	1,604.51	285	298	TRUE	
SNU216_PC4_01	Metastasis-associated protein MTA2	IPI00171798	75,025.10	99.10%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	81.80%	4.06	0.0813	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216_PC4_01	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	99.40%	2	2	2	0.01%	4.30%	SPSVPKSPTPK	K	S	95.00%	2.9	0.351	0	1	0	0	2	1,204.60	8	18	TRUE	
SNU216_PC4_01	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	99.40%	2	2	2	0.01%	4.30%	SPTPKSPPSR	K	K	88.40%	1.98	0.257	0	1	0	0	2	1,133.54	14	23	TRUE	
SNU216_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	GSSGSPAHAESYSSGGGGQQK	R	F	93.80%	4.19	0.0125	0	1	0	0	2	2,015.81	15	35	TRUE	
SNU216_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	ISPEERRSPPAPGLQPMR	K	S	95.00%	3.58	0.316	0	0	1	0	2	2,098.03	193	210	TRUE	
SNU216_PC4_01	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	SPPAPGLQPMR	R	S	95.00%	2.27	0.375	0	1	0	0	2	1,230.57	200	210	TRUE	
SNU216_PC4_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	99.80%	2	3	3	0.02%	11.90%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.7	0.595	0	1	1	0	2	2,375.94	172	191	TRUE	
SNU216_PC4_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	99.80%	2	3	3	0.02%	11.90%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.52	0.452	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216_PC4_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	99.80%	2	2	2	0.01%	3.42%	EAEDSDSDDNIKR	K	G	95.00%	2.08	0.358	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC4_01	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	99.80%	2	2	2	0.01%	3.42%	HQASDSENEELPKPR	R	I	95.00%	2.24	0.356	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	10	0.06%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.57	0.542	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	10	0.06%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.16	0.418	0	0	2	1	2	3,647.49	108	138	TRUE	
SNU216_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	10	0.06%	13.00%	LDNVPHTPSSYIETLPK	R	A	95.00%	3.06	0.378	0	2	1	0	2	1,990.95	45	61	TRUE	
SNU216_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	10	0.06%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.15	0.495	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216_PC4_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	10	0.06%	13.00%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.11	0.464	0	0	0	1	2	3,787.60	107	138	TRUE	
SNU216_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.15%	EKEISDDEAEEEK	R	G	95.00%	2.94	0.304	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.15%	IEDVGSDEEDDSGK	K	D	95.00%	2.5	0.288	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.15%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.77	0.351	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC4_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.15%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.99	0.382	0	1	0	0	2	1,945.79	249	265	TRUE	
SNU216_PC4_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	2.67%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	3.14	0.308	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216_PC4_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	2.67%	TQPDGTSVPGEPASPISQR	R	L	95.00%	3.73	0.422	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC4_01	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	2.67%	VSLEPHQGPGTPESK	R	K	95.00%	2.77	0.312	0	1	0	0	2	1,642.75	1990	2004	TRUE	
SNU216_PC4_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	3	0.02%	7.32%	KDDEDEEEEEEVSDS	R	-	95.00%	3.84	0.581	0	1	0	0	2	1,863.62	382	396	TRUE	
SNU216_PC4_01	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	3	3	0.02%	7.32%	QERLSPEVAPPAHR	K	R	95.00%	3.31	0.312	0	1	1	0	2	1,666.81	31	44	TRUE	
SNU216_PC4_01	Bystin	IPI00328987	49,602.50	99.80%	2	2	2	0.01%	9.15%	MPQDGSDDEDEEWPTLEK	R	A	95.00%	4.14	0.3	0	1	0	0	2	2,200.83	93	110	TRUE	
SNU216_PC4_01	Bystin	IPI00328987	49,602.50	99.80%	2	2	2	0.01%	9.15%	QTEVETVMSEVSGFPMPQLDPR	K	V	95.00%	3.22	0.315	0	0	1	0	2	2,557.14	159	180	TRUE	
SNU216_PC4_01	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	1	0.01%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.42	0.301	0	0	1	0	2	1,497.72	192	204	TRUE	
SNU216_PC4_01	Isoform Short of Ubiquitin fusion degradation pro	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIK	K	R	95.00%	3.92	0.436	0	1	0	0	2	1,600.80	241	255	TRUE	
SNU216_PC4_01	Isoform Short of Ubiquitin fusion degradation pro	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIKR	K	G	95.00%	3.09	0.539	0	1	1	0	2	1,756.90	241	256	TRUE	
SNU216_PC4_01	40S ribosomal protein S3a	IPI00419880	29,814.10	100.00%	1	1	1	0.01%	4.56%	ADGYEPPVQESV	R	-	95.00%	1.74	0.304	0	1	0	0	2	1,370.55	252	263	TRUE	
SNU216_PC4_01	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	38,420.30	100.00%	2	3	9	0.06%	4.36%	SNSPLPVPPSK	R	A	95.00%	2.96	0.524	3	5	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC4_01	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	38,420.30	100.00%	2	3	9	0.06%	4.36%	SQSRSNSPLPVPPSK	R	A	95.00%	2.31	0.259	0	1	0	0	2	1,820.74	297	311	TRUE	
SNU216_PC4_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.17	0.349	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC4_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.03	0.414	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC4_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.09	0.455	0	1	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC4_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	6	0.04%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	4.95	0.497	0	0	2	0	2	3,306.56	362	391	TRUE	
SNU216_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	10.10%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.09	0.5	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	10.10%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.73	0.385	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	10.10%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.29	0.266	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216_PC4_01	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	4	5	5	0.03%	10.10%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	5.15	0.586	0	1	0	0	2	1,912.96	264	282	TRUE	
SNU216_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	13	23	0.14%	10.00%	FASDDEHDEHDENGATGPVK	K	R	95.00%	3.87	0.454	0	2	2	0	2	2,249.86	364	383	TRUE	
SNU216_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	13	23	0.14%	10.00%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.97	0.498	0	2	3	3	2	2,405.96	364	384	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	13	23	0.14%	10.00%	SPSKPLPEVTDEYKNDVK	R	N	95.00%	3.35	0.43	0	1	1	0	2	2,126.01	92	109	TRUE	
SNU216_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	13	23	0.14%	10.00%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	4.22	0.378	0	1	2	1	2	2,479.00	362	383	TRUE	
SNU216_PC4_01	Lupus La protein	IPI00009032	46,839.00	100.00%	5	13	23	0.14%	10.00%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.54	0.441	0	1	2	2	2	2,635.11	362	384	TRUE	
SNU216_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.00%	EIQNGNLHESDSESVPR	K	D	95.00%	3.42	0.304	0	2	0	0	2	1,990.85	66	82	TRUE	
SNU216_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.00%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.84	0.403	0	1	2	0	2	2,247.04	64	82	TRUE	
SNU216_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.00%	QPTPPSEAAASK	K	K	95.00%	2.46	0.401	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216_PC4_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.00%	VEPVPVTKQPTPPSEAAASK	K	K	95.00%	3	0.503	0	1	1	0	2	2,113.06	143	162	TRUE	
SNU216_PC4_01	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	2	4	0.02%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.96	0.543	0	1	3	0	2	2,205.10	225	244	TRUE	
SNU216_PC4_01	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.05	0.364	0	1	0	0	2	1,936.80	562	578	TRUE	
SNU216_PC4_01	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.23	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC4_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	3.08%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	2.97	0.41	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216_PC4_01	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	3.08%	SGDETPGSEVPGDK	R	A	95.00%	2.59	0.452	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC4_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	5	0.03%	5.70%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	5	0.542	0	2	1	0	2	2,586.99	308	328	TRUE	
SNU216_PC4_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	5	0.03%	5.70%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	6.84	0.491	0	0	0	1	2	3,394.35	302	328	TRUE	
SNU216_PC4_01	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	4	5	0.03%	5.70%	RHEEQQRELEEEEENSDEDELDSHTMVK	K	T	95.00%	3.77	0.29	0	0	0	1	2	3,550.46	301	328	TRUE	
SNU216_PC4_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	5.17	0.623	0	1	0	0	2	2,304.83	179	197	TRUE	
SNU216_PC4_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	3.91	0.376	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.11%	21.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.97	0.334	1	2	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.11%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDK	K	E	95.00%	5.64	0.544	0	0	1	0	2	2,989.16	143	168	TRUE	
SNU216_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.11%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.52	0.61	0	0	6	3	2	3,657.52	143	174	TRUE	
SNU216_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.11%	21.40%	LNVLEKSSPGHR	R	A	95.00%	3.1	0.244	0	1	1	0	2	1,416.70	111	122	TRUE	
SNU216_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.11%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	E	95.00%	5.89	0.51	0	0	1	0	2	3,529.43	144	174	TRUE	
SNU216_PC4_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.11%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	L	95.00%	4.13	0.398	0	0	1	0	2	3,943.62	144	177	TRUE	
SNU216_PC4_01	Isoform 2 of Reticulon-4	IPI00298289	40,318.70	100.00%	1	1	1	0.01%	6.43%	MEDLDQSPLVSSSDSPPRPQPAFK	-	Y	95.00%	2.43	0.268	0	1	0	0	2	2,804.19	1	24	TRUE	IPI00478442,IPI00021766
SNU216_PC4_01	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	DDGSSMSFYVRPSPAK	R	R	95.00%	2.84	0.386	0	1	0	0	2	1,823.77	24	39	TRUE	
SNU216_PC4_01	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	99.80%	2	2	2	0.01%	7.52%	YLLGDAPVSPSSQK	K	L	95.00%	2.85	0.382	0	1	0	0	2	1,541.72	195	208	TRUE	
SNU216_PC4_01	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	1	1	2	0.01%	6.31%	VEAKEESEESDEDMGFGLFD	K	-	95.00%	2.99	0.358	0	2	0	0	2	2,358.88	298	317	TRUE	
SNU216_PC4_01	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	5.18	0.126	0	0	0	1	2	3,940.73	145	179	TRUE	
SNU216_PC4_01	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.70%	2	2	2	0.01%	3.70%	KARVGGSDEEASGIPSR	K	T	93.40%	3.26	0.182	0	1	0	0	2	1,795.83	353	369	TRUE	
SNU216_PC4_01	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.70%	2	2	2	0.01%	3.70%	VGGSDEEASGIPSR	K	T	95.00%	2.71	0.445	0	1	0	0	2	1,440.60	356	369	TRUE	
SNU216_PC4_01	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.02%	5.38%	EDLSPAFDHSPNK	K	I	95.00%	3.06	0.374	0	1	0	0	2	1,536.64	295	307	TRUE	
SNU216_PC4_01	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.02%	5.38%	ELSKEDLSPAFDHSPNK	K	I	95.00%	4.09	0.368	0	1	1	0	2	1,993.89	291	307	TRUE	
SNU216_PC4_01	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.02%	5.38%	WKELSKEDLSPAFDHSPNK	R	I	95.00%	4.88	0.384	0	0	1	0	2	2,308.06	289	307	TRUE	
SNU216_PC4_01	FLJ00144 protein (Fragment)	IPI00383085	28,455.00	100.00%	1	1	1	0.01%	2.35%	SHYQGS	R	-	95.00%	0.705	0.769	1	0	0	0	2	838.2168	250	255	TRUE	
SNU216_PC4_01	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	EVYELLDSPGK	K	V	95.00%	2.31	0.374	0	1	0	0	2	1,329.60	46	56	TRUE	
SNU216_PC4_01	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	TKEVYELLDSPGK	K	V	95.00%	3.72	0.475	0	1	0	0	2	1,558.74	44	56	TRUE	
SNU216_PC4_01	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	TKEVYELLDSPGKVLLQSK	K	D	95.00%	2.91	0.291	0	0	1	0	2	2,227.16	44	62	TRUE	
SNU216_PC4_01	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	99.80%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	95.00%	3.25	0.441	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	10	12	0.07%	28.70%	AGDLLEDSPK	R	R	95.00%	2.77	0.167	1	1	0	0	2	1,124.49	158	167	TRUE	
SNU216_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	10	12	0.07%	28.70%	AGDLLEDSPKRPK	R	E	95.00%	3.11	0.201	0	1	0	0	2	1,505.74	158	170	TRUE	
SNU216_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	10	12	0.07%	28.70%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.57	0.358	0	1	1	0	2	2,204.90	127	146	TRUE	
SNU216_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	10	12	0.07%	28.70%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.96	0.513	0	1	3	0	2	2,462.04	127	148	TRUE	
SNU216_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	10	12	0.07%	28.70%	GPPQEEEEEEDEEEEATKEDAEAPGIRDHES	R	-	94.70%	3.54	0.214	0	0	1	0	2	3,703.49	209	240	TRUE	
SNU216_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	10	12	0.07%	28.70%	KGNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.78	0.363	0	1	0	0	2	2,332.99	126	146	TRUE	
SNU216_PC4_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	7	10	12	0.07%	28.70%	RAGDLLEDSPK	R	R	95.00%	2.76	0.415	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	2	3	5	0.03%	10.70%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.96	0.671	0	1	2	0	2	2,722.93	30	50	TRUE	
SNU216_PC4_01	Protein DEK	IPI00020021	42,675.90	100.00%	2	3	5	0.03%	10.70%	NKEESSDDEDKESEEEPPK	K	K	95.00%	1.85	0.398	0	2	0	0	2	2,460.83	239	257	TRUE	
SNU216_PC4_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.80%	2	2	2	0.01%	3.27%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	82.60%	5.96	0.0223	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216_PC4_01	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.80%	2	2	2	0.01%	3.27%	RSSLLSLMTGK	R	K	95.00%	2.03	0.362	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	5	0.03%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	3.93	0.509	0	2	2	0	2	2,051.83	68	85	TRUE	
SNU216_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	5	0.03%	5.07%	NEEDEGHSNSSPR	K	H	95.00%	3.35	0.435	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216_PC4_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	3	3	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	3.64	0.457	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216_PC4_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	3	3	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.38	0.356	0	0	1	0	2	1,894.88	104	120	TRUE	
SNU216_PC4_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.24	0.286	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC4_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.55	0.432	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216_PC4_01	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.44	0.324	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216_PC4_01	Isoform 1 of Sulfotransferase family cytosolic 2B	IPI00008179,IPI00328142	39,600.30	99.80%	1	1	1	0.01%	6.58%	EPRPNSSPSPSPGQASETPHPRPS	R	-	95.00%	4.36	0.414	0	0	1	0	2	2,576.15	327	350	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	EESDGEYDEFGR	R	K	95.00%	3.26	0.57	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	EESDGEYDEFGRK	R	K	95.00%	2.78	0.419	0	1	0	0	2	1,640.61	118	130	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.33	0.424	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	5.16	0.634	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	EVEDKESEGEEEDEDEDLSKYK	K	L	95.00%	4.44	0.397	0	0	1	0	2	2,711.06	147	168	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	SRSPESQVIGENTK	R	Q	95.00%	4.22	0.405	0	1	0	0	2	1,611.74	305	318	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	SRSPESQVIGENTKQP	R	-	95.00%	3.59	0.406	0	1	0	0	2	1,836.85	305	320	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	TRSRSPESQVIGENTK	R	Q	83.00%	3.25	0.0734	0	1	0	0	2	1,948.85	303	318	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	YKLDEDEDEDDADLSKYNLDASEEEDSNK	K	K	95.00%	5.09	0.17	0	0	1	0	2	3,474.38	167	195	TRUE	
SNU216_PC4_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	27.50%	YNLDASEEEDSNK	K	K	95.00%	3.13	0.458	0	1	0	0	2	1,593.60	183	195	TRUE	
SNU216_PC4_01	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	2	2	0.01%	8.98%	DLGSTEDGDGTDDFLTDKEDEK	R	A	95.00%	3.06	0.296	0	0	1	0	2	2,481.97	180	201	TRUE	
SNU216_PC4_01	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	2	2	0.01%	8.98%	KDLGSTEDGDGTDDFLTDKEDEK	R	A	95.00%	5.41	0.479	0	0	1	0	2	2,610.06	179	201	TRUE	
SNU216_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	10.30%	AMSEVTSLHEDDWR	R	S	95.00%	2.62	0.396	0	1	0	0	2	1,755.70	411	424	TRUE	
SNU216_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	10.30%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.22	0.575	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	10.30%	GPALTPIRDEEWGGHSPR	R	S	95.00%	3.13	0.167	0	0	1	0	2	2,054.94	430	447	TRUE	
SNU216_PC4_01	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	4	5	5	0.03%	10.30%	SRSRDDLYDQDDSR	R	D	85.50%	2.59	0.16	0	1	0	0	2	1,807.72	509	522	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	4.56	0.345	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216_PC4_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	3.43	0.402	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216_PC4_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	3.88%	GADNDGSGSESGYTTPK	K	K	95.00%	4.02	0.522	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC4_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	2	0.01%	3.88%	NDSWGSFDLR	R	A	95.00%	2.08	0.46	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC4_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMR	R	K	95.00%	3.5	0.36	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216_PC4_01	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMRK	R	K	95.00%	4.19	0.367	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216_PC4_01	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEK	R	E	95.00%	3.81	0.556	0	1	0	0	2	1,768.69	115	129	TRUE	
SNU216_PC4_01	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEKEVEALKK	R	S	95.00%	5.79	0.507	0	0	1	1	2	2,566.16	115	136	TRUE	
SNU216_PC4_01	FLN29 gene product	IPI00009146	64,840.60	99.80%	2	2	2	0.01%	4.64%	ALPSLNTGSSSPR	R	G	95.00%	2.35	0.255	0	1	0	0	2	1,366.64	317	329	TRUE	
SNU216_PC4_01	FLN29 gene product	IPI00009146	64,840.60	99.80%	2	2	2	0.01%	4.64%	LDSQPQETSPELPR	R	R	95.00%	3.18	0.397	0	1	0	0	2	1,676.75	407	420	TRUE	
SNU216_PC4_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	2	2	3	0.02%	4.60%	KETESEAEDNLDDLEK	K	H	95.00%	4.74	0.463	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216_PC4_01	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	2	2	3	0.02%	4.60%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.71	0.103	0	0	2	0	2	2,791.42	772	797	TRUE	
SNU216_PC4_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	15.10%	GGLGGGYGGASGMGGITAVTVNQSLLSPL	R	T	83.60%	4.23	0.0904	0	0	1	0	2	4,005.02	47	87	TRUE	
SNU216_PC4_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	15.10%	LVSESSDVLPK	K	-	95.00%	2.15	0.319	0	1	0	0	2	1,253.60	472	482	TRUE	
SNU216_PC4_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	15.10%	SLDMDSIIAEVK	R	A	95.00%	2.73	0.173	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216_PC4_01	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	15.10%	SYTSGPGSR	R	I	82.10%	1.62	0.396	1	0	0	0	2	991.3881	23	31	TRUE	
SNU216_PC4_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.4	0.261	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC4_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	4.08	0.388	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC4_01	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.01	0.47	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216_PC4_01	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	93.60%	3.25	0.0959	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216_PC4_01	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	7.02	0.503	0	1	1	0	2	2,394.07	428	451	TRUE	
SNU216_PC4_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	3	3	0.02%	7.69%	KSFTPDHVVYAR	R	S	95.00%	2.62	0.217	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216_PC4_01	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	3	3	0.02%	7.69%	VMIYQDEVKLPAKLSISK	K	S	95.00%	2.61	0.429	0	1	1	0	2	2,142.13	153	170	TRUE	
SNU216_PC4_01	Rho-GTPase-activating protein 1	IPI00020567	50,437.90	100.00%	1	1	1	0.01%	2.51%	SSSPELVTHLK	K	W	95.00%	1.93	0.279	0	1	0	0	2	1,277.61	49	59	TRUE	
SNU216_PC4_01	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	3	4	0.02%	4.39%	KETPPPLVPPAAR	R	E	95.00%	2.53	0.473	0	2	1	0	2	1,452.76	3	15	TRUE	
SNU216_PC4_01	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	3	4	0.02%	4.39%	MRKETPPPLVPPAAR	-	E	95.00%	3.26	0.198	0	0	1	0	2	1,739.90	1	15	TRUE	
SNU216_PC4_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	99.60%	2	2	2	0.01%	1.39%	LIDLESPTPESQK	K	S	92.00%	2.49	0.181	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216_PC4_01	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	99.60%	2	2	2	0.01%	1.39%	TLSDESIYNSQR	R	E	95.00%	2.43	0.296	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216_PC4_01	Isoform 1 of Inorganic pyrophosphatase 2, mitocl	IPI00301109,IPI00470502,IP	34,700.90	99.40%	1	1	1	0.01%	7.78%	SLVESVSSSPNKESNEEEQVWHFLGK	R	-	87.40%	6.43	0.0161	0	0	1	0	2	3,026.38	280	305	TRUE	
SNU216_PC4_01	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	3	3	4	0.02%	2.43%	RRSPPADAIPK	R	S	95.00%	3.19	0.412	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216_PC4_01	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	3	3	4	0.02%	2.43%	RSPPADAIPK	R	S	95.00%	2.32	0.285	0	1	0	0	2	1,131.56	10	19	TRUE	
SNU216_PC4_01	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	3	3	4	0.02%	2.43%	SPPADAIPK	R	S	95.00%	1.81	0.383	1	0	0	0	2	975.4549	11	19	TRUE	
SNU216_PC4_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	4	0.02%	6.06%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.07	0.524	0	0	3	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC4_01	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	4	0.02%	6.06%	SSTPLPTISSSAENTR	R	Q	95.00%	2.82	0.172	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216_PC4_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	99.80%	2	2	2	0.01%	1.94%	SSSISEEKGDSDDEKPR	K	K	95.00%	3.57	0.5	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC4_01	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	99.80%	2	2	2	0.01%	1.94%	TAQVPSPPR	R	G	95.00%	2.14	0.309	0	1	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	5	5	0.03%	12.60%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	3.49	0.284	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	5	5	0.03%	12.60%	ETPHSPGVEDAPIAK	R	V	95.00%	3.25	0.287	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	5	5	0.03%	12.60%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.75	0.53	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	5	5	0.03%	12.60%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.78	0.438	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216_PC4_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	5	5	5	0.03%	12.60%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.29	0.404	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.17%	33.20%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.73	0.392	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.17%	33.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.29	0.435	0	1	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.17%	33.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.63	0.611	0	1	4	1	2	2,951.45	55	80	TRUE	
SNU216_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.17%	33.20%	GPSSVEDIK	K	A	95.00%	1.88	0.299	0	1	0	0	2	1,011.44	211	219	TRUE	
SNU216_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.17%	33.20%	MQASIEKGGSLPK	K	V	95.00%	3	0.348	0	1	0	0	2	1,425.68	222	234	TRUE	
SNU216_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.17%	33.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.38	0.407	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC4_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	7	11	28	0.17%	33.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	10	0.599	0	0	4	12	2	3,735.89	46	80	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	1	2	2	0.01%	7.81%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.76	0.407	0	1	1	0	2	2,544.30	33	57	TRUE	
SNU216_PC4_01	DNA replication licensing factor MCM2	IPI00184330	101,898.10	98.80%	1	1	1	0.01%	1.77%	GLLYDSDEEDEERPAR	R	K	95.00%	3.32	0.272	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216_PC4_01	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	3	3	0.02%	7.30%	GADSGEEKEEGINR	K	E	95.00%	2.65	0.463	0	1	1	0	2	1,570.64	194	207	TRUE	
SNU216_PC4_01	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	3	3	0.02%	7.30%	GADSGEEKEEGINREDK	K	T	95.00%	3.02	0.246	0	0	1	0	2	1,942.80	194	210	TRUE	
SNU216_PC4_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	4.55%	LHKTEDGGWEWSDDEFDEESEEGK	R	A	95.00%	4.24	0.426	0	0	1	0	2	2,934.13	328	351	TRUE	
SNU216_PC4_01	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	4.55%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.02	0.497	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216_PC4_01	CDA02	IPI00012462	67,852.50	99.80%	1	1	1	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.77	0.417	0	1	0	0	2	1,944.91	527	544	TRUE	
SNU216_PC4_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	4	0.02%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.87	0.475	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216_PC4_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	4	0.02%	15.20%	NEGSESAPEGQAQQR	K	R	95.00%	2.73	0.477	0	2	0	0	2	1,747.63	170	184	TRUE	
SNU216_PC4_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	3	3	4	0.02%	15.20%	NYQQNYQNSESGEKNEGSESAPEGQAQQ	R	R	95.00%	3.25	0.242	0	0	0	1	2	3,337.36	156	184	TRUE	
SNU216_PC4_01	Hsc70-interacting protein	IPI00032826	41,332.40	100.00%	1	2	3	0.02%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	4.13	0.478	0	1	2	0	2	2,745.07	64	85	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 3 subunit 6	IPI00013068	52,222.60	100.00%	1	1	1	0.01%	4.49%	LGHVVMGNNAVSPYQQVIEK	K	T	95.00%	4.63	0.565	0	1	0	0	2	2,263.09	388	407	TRUE	
SNU216_PC4_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.90%	2	2	2	0.01%	3.80%	SPGSPVGEGTGSPPK	R	W	95.00%	3.15	0.452	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216_PC4_01	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.90%	2	2	2	0.01%	3.80%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.15	0.392	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC4_01	Protein LYRIC	IPI00328715	63,838.40	100.00%	1	1	1	0.01%	3.09%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	3.85	0.214	0	0	1	0	2	2,152.93	415	432	TRUE	
SNU216_PC4_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPR	K	R	95.00%	3.55	0.488	0	1	0	0	2	1,823.79	175	190	TRUE	
SNU216_PC4_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	ADREVQAEQPSSSSPRR	K	K	95.00%	3.22	0.234	0	0	1	0	2	1,979.89	175	191	TRUE	
SNU216_PC4_01	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	3	3	0.02%	5.28%	EVQAEQPSSSSPR	R	R	95.00%	3.14	0.421	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216_PC4_01	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	100.00%	3	3	3	0.02%	11.80%	IHLGSSPK	R	K	95.00%	1.91	0.305	1	0	0	0	2	918.4446	37	44	TRUE	
SNU216_PC4_01	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	100.00%	3	3	3	0.02%	11.80%	SLHLSPQEQSASYQDR	K	R	95.00%	3.57	0.464	0	1	0	0	2	1,925.84	61	76	TRUE	
SNU216_PC4_01	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	100.00%	3	3	3	0.02%	11.80%	THDHQLESSLSPVEVFAK	K	T	95.00%	4.73	0.449	0	0	1	0	2	2,103.97	4	21	TRUE	
SNU216_PC4_01	Protein C9orf42	IPI00061087	30,529.40	99.20%	2	2	2	0.01%	9.06%	HGLLLPASPVR	R	M	95.00%	2.83	0.392	0	1	0	0	2	1,239.66	69	79	TRUE	
SNU216_PC4_01	Protein C9orf42	IPI00061087	30,529.40	99.20%	2	2	2	0.01%	9.06%	RIDFIPVSPAPSPTR	K	G	84.10%	2.53	0.16	0	1	0	0	2	1,732.88	136	150	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	ATVTPSPVK	K	G	94.80%	1.99	0.192	1	0	0	0	2	979.4861	176	184	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	ATVTPSPVKGK	K	G	90.90%	2.49	0.14	0	1	0	0	2	1,164.60	176	186	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	3.9	0.467	0	1	2	2	2	2,421.94	71	90	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	EEDEEPESPPEK	K	K	84.60%	2.41	0.138	0	1	0	0	2	1,494.55	207	218	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	EEDEEPESPPEKK	K	T	95.00%	3.25	0.326	0	2	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	EKTPSPKEEDEEPESPPEK	K	K	95.00%	4.26	0.361	0	0	3	0	2	2,261.97	200	218	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	EMLMEDVGSEEEQEEEDEAPFQEK	R	D	95.00%	5.16	0.516	0	1	0	0	2	2,937.12	105	128	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	5.09	0.633	0	3	2	0	2	2,445.97	9	28	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	LKATVTPSPVK	R	G	95.00%	2.13	0.346	1	2	0	0	2	1,220.67	174	184	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	LKATVTPSPVKGK	R	G	95.00%	3.35	0.495	0	1	1	0	2	1,405.78	174	186	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	NSQEDSEDSEDKDVK	K	T	95.00%	4.08	0.346	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	4.58	0.329	0	3	1	0	2	2,076.82	50	67	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	TPSPKEEDEEPESPPEK	K	K	95.00%	2.3	0.319	0	1	1	0	2	2,004.83	202	218	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	TPSPKEEDEEPESPPEKK	K	T	95.00%	4.26	0.453	0	1	2	0	2	2,132.93	202	219	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.33	0.56	0	3	0	0	2	2,317.88	10	28	TRUE	
SNU216_PC4_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	16	24	39	0.24%	50.60%	VVDYSQFQESDDADEDYGRDSGPPTKK	K	I	95.00%	3.94	0.444	0	0	1	0	2	3,128.30	10	36	TRUE	
SNU216_PC4_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.53	0.478	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC4_01	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.08	0.281	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC4_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	5	5	0.03%	4.88%	SEHKVWSPLVTEEGKR	R	H	95.00%	3.62	0.229	0	0	1	1	2	1,961.95	83	98	TRUE	
SNU216_PC4_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	5	5	0.03%	4.88%	VWSPLVTEEGK	K	R	95.00%	2.38	0.28	0	1	0	0	2	1,324.62	87	97	TRUE	
SNU216_PC4_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	5	5	0.03%	4.88%	VWSPLVTEEGKR	K	H	95.00%	3.28	0.337	0	1	1	0	2	1,480.72	87	98	TRUE	
SNU216_PC4_01	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	4	0.02%	15.00%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	4.53	0.59	0	2	1	0	2	2,575.01	239	266	TRUE	
SNU216_PC4_01	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	4	0.02%	15.00%	NMGGPYGGGNYGPGGSGGSGGYGGR	R	S	95.00%	5.06	0.0036	0	1	0	0	2	2,269.87	326	350	TRUE	
SNU216_PC4_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.02%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	4.92	0.495	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC4_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.02%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.86	0.534	0	1	0	0	2	2,389.89	235	254	TRUE	
SNU216_PC4_01	Actin, cytoplasmic 1	IPI00021439,IPI00021440	41,793.90	100.00%	1	1	1	0.01%	3.73%	MEKIWHHTFYNELR	D	V	85.80%	3.05	0.118	0	1	0	0	1	1,983.89	82	95	TRUE	
SNU216_PC4_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	99.80%	2	2	2	0.01%	1.48%	DGQDAIAQSPEK	K	E	95.00%	2.63	0.292	0	1	0	0	2	1,338.56	281	292	TRUE	
SNU216_PC4_01	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	99.80%	2	2	2	0.01%	1.48%	DGQDAIAQSPEKESK	K	D	95.00%	3.55	0.383	0	1	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC4_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	4.11	0.518	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216_PC4_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	4.5	0.469	0	1	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.06%	19.30%	KAPKSPAK	K	A	95.00%	2.18	0.323	0	3	0	0	2	906.481	182	189	TRUE	
SNU216_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.06%	19.30%	KASGPPVSELITK	R	A	95.00%	3.26	0.44	0	1	1	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.06%	19.30%	SETAPAAPAAPAPAEKTPVK	-	K	95.00%	4.04	0.438	0	1	1	0	2	1,983.98	1	20	TRUE	
SNU216_PC4_01	Histone H1.4	IPI00217467	21,735.70	100.00%	4	7	9	0.06%	19.30%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.16	0.505	0	1	1	0	2	2,112.07	1	21	TRUE	
SNU216_PC4_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GSGSGSHNWGTVKDELTESPK	R	Y	95.00%	5.1	0.472	0	1	0	0	2	2,165.95	217	236	TRUE	
SNU216_PC4_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	GSGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	5.45	0.358	0	0	1	1	2	2,698.25	217	240	TRUE	
SNU216_PC4_01	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	5	5	0.03%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.5	0.482	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216_PC4_01	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	IGHHSTSDDSSAYR	R	S	95.00%	2.92	0.416	0	1	1	0	2	1,612.64	367	380	TRUE	
SNU216_PC4_01	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDK	R	Q	95.00%	2.4	0.419	0	1	0	0	2	1,334.53	381	390	TRUE	
SNU216_PC4_01	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDKQDHPISR	R	L	95.00%	4.46	0.493	0	1	1	0	2	2,167.94	381	397	TRUE	
SNU216_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	5.25%	DMESPTKLDVTLAK	K	D	95.00%	3.81	0.293	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	5.25%	ETERASPIKMDLAPSK	K	D	95.00%	3.12	0.214	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	5.25%	RASPSKPASAPASR	K	S	95.00%	2.97	0.47	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC4_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	5	5	0.03%	5.25%	VGSLDNVGHLPAGGAVK	K	I	95.00%	2.97	0.364	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216_PC4_01	Hypothetical protein	IPI00014197	27,334.70	99.80%	1	1	1	0.01%	6.98%	VQAMQISSEKEEDDNEKR	R	Q	95.00%	3.47	0.271	0	0	1	0	2	2,215.95	100	117	TRUE	
SNU216_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	5.21%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.44	0.217	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	5.21%	DNSPPPAFKPEPPK	R	A	88.00%	2.01	0.261	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	5.21%	ERPSSREDTPSR	K	L	95.00%	2.45	0.353	0	1	0	0	2	1,496.65	437	448	TRUE	
SNU216_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	5.21%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.51	0.484	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216_PC4_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	5	5	5	0.03%	5.21%	SRSWEDSPER	R	G	95.00%	2.33	0.324	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216_PC4_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	3	3	4	0.02%	15.10%	GRESDEDTEDASETDLAK	R	H	95.00%	2.44	0.358	0	1	0	0	2	2,207.73	42	59	TRUE	
SNU216_PC4_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	3	3	4	0.02%	15.10%	GRESDEDTEDASETDLAKHDEEDYVEMK	R	E	95.00%	3.78	0.457	0	0	1	0	2	3,483.24	42	69	TRUE	
SNU216_PC4_01	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	3	3	4	0.02%	15.10%	RPASPSSPEHLPATPAESPAQR	K	F	95.00%	3.86	0.254	0	0	2	0	2	2,363.11	235	256	TRUE	
SNU216_PC4_01	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	GDSESEEDEDLEVPVPSR	K	F	95.00%	3.62	0.493	0	1	0	0	2	2,148.79	75	92	TRUE	
SNU216_PC4_01	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	4.27	0.487	0	2	1	0	2	2,553.09	70	92	TRUE	
SNU216_PC4_01	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.06	0.455	0	1	0	0	2	1,872.96	270	286	TRUE	
SNU216_PC4_01	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	SASSDTSEELNSQDSPPK	R	Q	92.90%	4.17	0.0091	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.57	0.34	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVIC	K	H	95.00%	3.37	0.213	0	0	1	0	2	4,001.82	363	400	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	3.03	0.348	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC4_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.32%	KAEPSEVDMNSPK	K	S	95.00%	3.64	0.355	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216_PC4_01	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.32%	KKEEPSQNDISPK	K	T	95.00%	3.54	0.417	0	0	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	4	5	6	0.04%	19.20%	AALEDTLAETEAR	K	F	95.00%	2.29	0.337	0	1	0	0	2	1,469.65	318	330	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	4	5	6	0.04%	19.20%	FVSSSSSGGYGGGVGGVLTASDGLLAGNEK	R	L	95.00%	3.87	0.448	0	2	1	0	2	2,874.28	52	81	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	4	5	6	0.04%	19.20%	QSSATSSFGGLGGGSVR	R	F	86.30%	3.29	0.0609	0	1	0	0	2	1,634.72	8	24	TRUE	
SNU216_PC4_01	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	4	5	6	0.04%	19.20%	SLLEGQEDHYNNLSASK	R	V	95.00%	3.16	0.274	0	1	0	0	2	1,984.86	382	398	TRUE	
SNU216_PC4_01	Matrin-3	IPI00017297	94,626.70	99.80%	1	2	2	0.01%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.25	0.43	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216_PC4_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	5	5	0.03%	6.08%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	5.61	0.554	0	1	1	0	2	2,669.00	89	113	TRUE	
SNU216_PC4_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	5	5	0.03%	6.08%	GNDSDGEGESDDPEK	K	K	95.00%	3.52	0.585	0	1	0	0	2	1,630.54	99	113	TRUE	
SNU216_PC4_01	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	3	5	5	0.03%	6.08%	GNDSDGEGESDDPEKKK	K	L	95.00%	3.47	0.327	0	1	1	0	2	1,886.73	99	115	TRUE	
SNU216_PC4_01	Histone RNA hairpin-binding protein	IPI00031015	31,286.00	99.80%	1	1	1	0.01%	4.07%	QPGIHPKTPNK	R	F	95.00%	2.31	0.346	0	0	1	0	2	1,296.65	164	174	TRUE	
SNU216_PC4_01	26 kDa protein	IPI00217978	26,288.40	99.80%	2	2	2	0.01%	16.00%	NRHSPDHPGMGSSQASSSSSLR	K	-	95.00%	3.62	0.3	0	0	1	0	2	2,377.99	223	244	TRUE	
SNU216_PC4_01	26 kDa protein	IPI00217978	26,288.40	99.80%	2	2	2	0.01%	16.00%	TQDPVPPETPSDSDHKK	R	K	95.00%	3.51	0.275	0	0	1	0	2	1,957.85	184	200	TRUE	
SNU216_PC4_01	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	1	1	1	0.01%	3.32%	MDSPSATVVSAVQSR	R	C	95.00%	2.96	0.504	0	1	0	0	2	1,614.72	394	408	TRUE	
SNU216_PC4_01	ELAV-like protein 1	IPI00301936	36,092.60	100.00%	1	1	1	0.01%	4.29%	NVALLSQLYHSPAR	K	R	95.00%	3.26	0.238	0	1	0	0	2	1,648.82	192	205	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	programmed cell death 4 isoform 2	IPI00240675,IPI00290110,IP	50,577.40	99.70%	1	1	1	0.01%	2.18%	SGLTVPTSPK	R	G	93.40%	1.74	0.277	0	1	0	0	2	1,066.52	76	85	TRUE	
SNU216_PC4_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.70%	2	2	2	0.01%	1.90%	STLTYQR	R	N	95.00%	1.48	0.251	1	0	0	0	2	948.4187	461	467	TRUE	
SNU216_PC4_01	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.70%	2	2	2	0.01%	1.90%	VASPSQGQVGSSSPKR	R	S	95.00%	2.33	0.215	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216_PC4_01	Isoform 1 of Actin-like protein 6A	IPI00003627,IPI00216622	47,461.10	100.00%	1	1	1	0.01%	2.80%	EAVREGSPANWK	K	R	95.00%	2.41	0.219	0	1	0	0	2	1,423.64	227	238	TRUE	
SNU216_PC4_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	4	4	0.02%	9.38%	GPGQPSSPQRLDR	K	L	95.00%	2.41	0.259	0	1	0	0	2	1,474.68	189	201	TRUE	
SNU216_PC4_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	4	4	0.02%	9.38%	HSLDSDEEEDDDDGGSSK	K	Y	95.00%	3.74	0.4	0	1	0	0	2	2,016.68	45	62	TRUE	
SNU216_PC4_01	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	4	4	0.02%	9.38%	KGPGQPSSPQRLDR	R	L	92.00%	2.23	0.251	0	1	1	0	2	1,602.78	188	201	TRUE	
SNU216_PC4_01	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	1	1	1	0.01%	1.85%	SPVPSPGSSSPQLQVK	R	S	95.00%	3.21	0.492	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216_PC4_01	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	98.90%	1	1	1	0.01%	0.96%	DSEDVSERDSDKEMATK	R	S	95.00%	3.08	0.226	0	0	1	0	2	2,021.80	111	127	TRUE	
SNU216_PC4_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	7	0.04%	10.40%	RPHTPTPGIYMGR	K	P	95.00%	3.66	0.496	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216_PC4_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	7	0.04%	10.40%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.54	0.358	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216_PC4_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	7	0.04%	10.40%	RRSPSPYYSR	R	D	95.00%	2.61	0.208	0	0	1	0	2	1,348.62	262	271	TRUE	IPI00013891
SNU216_PC4_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	7	0.04%	10.40%	RSPSPYYSR	R	D	87.50%	2.63	0.128	1	2	0	0	2	1,192.51	263	271	TRUE	IPI00013891
SNU216_PC4_01	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	83.70%	1.98	0.217	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216_PC4_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.80%	2	2	2	0.01%	3.20%	KTESPIKLSPATPSR	K	K	95.00%	3.26	0.282	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC4_01	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.80%	2	2	2	0.01%	3.20%	SVAVSDEEEVEEEAER	R	R	95.00%	3.95	0.331	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC4_01	Isoform 2 of Alkylated repair protein alkB homolo	IPI00413659,IPI00759562	52,460.30	98.90%	1	1	2	0.01%	5.14%	YQEDSDPERSDYEEQQLQKEEEAR	K	K	95.00%	4.52	0.41	0	0	2	0	2	3,081.26	60	83	TRUE	
SNU216_PC4_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.80%	2	2	4	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.13	0.317	0	0	2	0	2	2,926.25	191	216	TRUE	
SNU216_PC4_01	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.80%	2	2	4	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	4.41	0.18	0	0	2	0	2	3,082.36	191	217	TRUE	
SNU216_PC4_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	99.80%	2	2	2	0.01%	5.11%	DLTHSDSESSLHMSDR	R	Q	95.00%	2.6	0.214	0	0	1	0	2	1,896.74	515	530	TRUE	
SNU216_PC4_01	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	99.80%	2	2	2	0.01%	5.11%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	3	0.38	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216_PC4_01	Transaldolase	IPI00744692	37,541.70	100.00%	1	1	1	0.01%	2.67%	TIVMGASFR	K	N	95.00%	1.83	0.3	0	1	0	0	2	1,061.49	231	239	TRUE	
SNU216_PC4_01	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	2	4	0.02%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	2.66	0.405	0	3	0	0	2	1,593.72	221	235	TRUE	
SNU216_PC4_01	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	2	4	0.02%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.83	0.406	0	0	1	0	2	1,721.82	221	236	TRUE	
SNU216_PC4_01	Gastric-associated differentially-expressed protein	IPI00386208	14,866.80	100.00%	1	1	1	0.01%	11.00%	AAAYNIVPSSTGAAK	R	A	95.00%	3.06	0.301	0	1	0	0	2	1,500.71	26	40	TRUE	
SNU216_PC4_01	Isoform 2 of DNA-binding protein A	IPI00219147	31,946.60	99.80%	1	1	1	0.01%	6.27%	AGEAPTENPAPPTQQSSAE	K	-	95.00%	2.8	0.236	0	1	0	0	2	1,961.81	285	303	TRUE	
SNU216_PC4_01	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.02%	10.70%	RASLSDLTDLEDIEGLTVR	R	Q	95.00%	4.59	0.536	0	1	1	0	2	2,183.06	238	256	TRUE	
SNU216_PC4_01	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.02%	10.70%	VPAEDETQSIDSEDSFVPGR	R	R	95.00%	3.68	0.328	0	2	0	0	2	2,257.95	218	237	TRUE	
SNU216_PC4_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	7	0.04%	11.00%	DDGDEEGLLTHSEEELEHSQDTDADDGALC	R	-	95.00%	5.78	0.379	0	0	1	0	2	3,350.30	261	290	TRUE	
SNU216_PC4_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	7	0.04%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	6.31	0.529	0	0	4	2	2	3,607.45	259	290	TRUE	
SNU216_PC4_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.90%	2	2	2	0.01%	7.85%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.98	0.268	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC4_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.90%	2	2	2	0.01%	7.85%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.35	0.415	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC4_01	5'-AMP-activated protein kinase subunit beta-2	IPI00013905	30,302.60	99.80%	2	2	2	0.01%	13.60%	DLSSSPPGPYGQEMYAFR	R	S	95.00%	3.13	0.381	0	1	0	0	2	2,081.87	180	197	TRUE	
SNU216_PC4_01	5'-AMP-activated protein kinase subunit beta-2	IPI00013905	30,302.60	99.80%	2	2	2	0.01%	13.60%	SHNDFVAILDLPEGEHQYK	K	F	95.00%	3.27	0.202	0	0	1	0	2	2,292.03	108	126	TRUE	
SNU216_PC4_01	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEK	K	D	95.00%	3.19	0.266	0	1	0	0	2	1,508.74	197	210	TRUE	
SNU216_PC4_01	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEKDSVVSLESQK	K	T	95.00%	4.29	0.473	0	0	1	0	2	2,581.28	197	220	TRUE	
SNU216_PC4_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.80%	2	2	2	0.01%	2.50%	KMEESDEEAVQAK	K	V	95.00%	3.74	0.222	0	1	0	0	2	1,573.65	688	700	TRUE	
SNU216_PC4_01	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.80%	2	2	2	0.01%	2.50%	RYEDDGISDDEIEGKR	R	T	95.00%	2.72	0.202	0	0	1	0	2	1,976.82	21	36	TRUE	
SNU216_PC4_01	Stomatin-like protein 2	IPI00334190	38,534.50	100.00%	1	1	1	0.01%	4.49%	APVPGTPDSLSSGSSR	K	D	95.00%	2.38	0.397	0	1	0	0	2	1,594.71	322	337	TRUE	
SNU216_PC4_01	Cyclin-H	IPI00021305	37,644.90	100.00%	3	3	3	0.02%	5.57%	HEEEEWTDDDLVESL	K	-	95.00%	2.46	0.381	0	1	0	0	2	1,925.73	309	323	TRUE	
SNU216_PC4_01	Cyclin-H	IPI00021305	37,644.90	100.00%	3	3	3	0.02%	5.57%	KSKHEEEEWTDDDLVESL	K	-	95.00%	2.88	0.306	0	0	1	0	2	2,268.95	306	323	TRUE	
SNU216_PC4_01	Cyclin-H	IPI00021305	37,644.90	100.00%	3	3	3	0.02%	5.57%	SKHEEEEWTDDDLVESL	K	-	95.00%	3.24	0.184	0	1	0	0	2	2,140.86	307	323	TRUE	
SNU216_PC4_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.80%	2	3	3	0.02%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	6.18	0.212	0	0	1	0	2	4,104.59	78	115	TRUE	
SNU216_PC4_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.80%	2	3	3	0.02%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	6.63	0.187	0	0	1	1	2	4,260.69	78	116	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	ASLGSLEGEAEAESSPK	K	G	95.00%	4.4	0.53	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	ASLGSLEGEAEAESSPKGK	K	F	95.00%	3.59	0.313	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	FKAEAPLPSPK	K	L	95.00%	2.8	0.375	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	GGVTGSPEASISGSKGDLK	K	S	95.00%	2.87	0.29	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	GHYEVTGSDDETGK	K	L	95.00%	2.71	0.521	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.39	0.0935	0	1	0	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	GKGGVTGSPEASISGSK	K	G	95.00%	3.83	0.169	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	ISAPNVDFNLEGPK	R	V	95.00%	2.37	0.398	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	SKGHYEVTGSDDETGK	K	L	95.00%	2.46	0.302	0	1	0	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC4_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	11	13	0.08%	3.14%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.17	0.35	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC4_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	3	3	0.02%	4.02%	MEDLDQSPLVSSSDSPPRPQPAFK	-	Y	95.00%	2.43	0.268	0	1	0	0	2	2,804.19	1	24	FALSE	IPI00298289
SNU216_PC4_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	3	3	0.02%	4.02%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.89	0.459	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216_PC4_01	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	3	3	0.02%	4.02%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.12	0.43	0	0	1	1	2	2,595.29	178	201	TRUE	
SNU216_PC4_01	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	1	1	1	0.01%	8.75%	RKPVLPALTINPTIAEGPSPTSEGASEANLVD	R	K	95.00%	9.63	0.0246	0	0	1	0	2	3,693.91	5	39	TRUE	
SNU216_PC4_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	3	4	4	0.02%	13.00%	KKSPNELVDDLFK	R	G	95.00%	4.39	0.515	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC4_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	3	4	4	0.02%	13.00%	LGSTAPQVLSTSSPAQQAENEAK	K	A	95.00%	3.99	0.396	0	1	0	0	2	2,394.12	262	284	TRUE	
SNU216_PC4_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	3	4	4	0.02%	13.00%	VTKSPGETSKPR	R	P	95.00%	2.44	0.27	0	0	1	0	2	1,366.67	139	150	TRUE	
SNU216_PC4_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.02%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.75	0.355	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216_PC4_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.02%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE	K	G	95.00%	5.53	0.41	0	0	1	1	2	3,462.56	246	276	TRUE	
SNU216_PC4_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.02%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	3.22	0.414	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216_PC4_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,895.90	99.80%	2	2	2	0.01%	4.57%	RHSSDINHLVTQGR	R	E	95.00%	2.39	0.213	0	0	0	1	2	1,699.80	481	494	TRUE	
SNU216_PC4_01	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,895.90	99.80%	2	2	2	0.01%	4.57%	TISDGTISASK	R	Q	95.00%	2.07	0.412	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216_PC4_01	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	1	1	1	0.01%	7.27%	SKSPPKSPEEEGAVSS	R	-	95.00%	2.29	0.238	0	1	0	0	2	1,855.68	205	220	TRUE	
SNU216_PC4_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	RPESPSEISPIK	K	G	95.00%	2.74	0.311	0	1	0	0	2	1,419.69	262	273	TRUE	
SNU216_PC4_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	RPESPSEISPIKGSVR	K	T	88.90%	2.87	0.115	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216_PC4_01	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	3	3	3	0.02%	3.36%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	4.79	0.229	0	1	0	0	2	2,653.07	108	131	TRUE	
SNU216_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	10	0.06%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	5.03	0.446	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	10	0.06%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	3.62	0.357	0	1	3	0	2	3,118.29	334	362	TRUE	
SNU216_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	10	0.06%	15.10%	DLHQGIEAASDEEDLR	R	W	95.00%	3.07	0.353	0	1	0	0	2	1,877.79	267	282	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	10	0.06%	15.10%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	3.84	0.391	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216_PC4_01	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	10	0.06%	15.10%	GGRSPDEVTLTSIVPTR	K	D	95.00%	2.85	0.39	0	1	1	0	2	1,864.92	317	333	TRUE	
SNU216_PC4_01	Melanoma-associated antigen G1	IPI00217104	34,309.10	99.80%	1	1	1	0.01%	5.59%	GPGGSQGSQGPSPQGAR	R	R	95.00%	2.92	0.422	0	1	0	0	2	1,604.68	53	69	TRUE	
SNU216_PC4_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	99.80%	3	3	3	0.02%	4.05%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	79.90%	5.92	0.0197	0	0	1	0	2	4,094.96	1536	1574	TRUE	
SNU216_PC4_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	99.80%	3	3	3	0.02%	4.05%	NSLESISSIDR	R	E	84.40%	1.74	0.248	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216_PC4_01	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	99.80%	3	3	3	0.02%	4.05%	QSPASPPPLGGGAPVR	R	T	95.00%	2.69	0.408	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216_PC4_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	99.80%	2	2	2	0.01%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	3.25	0.269	0	1	0	0	2	2,319.81	56	73	TRUE	
SNU216_PC4_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	99.80%	2	2	2	0.01%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	3.11	0.546	0	1	0	0	2	2,347.81	57	74	TRUE	
SNU216_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	4.75%	DYDDMSPR	R	R	92.70%	1.55	0.196	1	0	0	0	2	1,078.35	279	286	TRUE	
SNU216_PC4_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	4.75%	IILDLISESPIKGR	K	A	95.00%	3.04	0.287	0	1	0	0	2	1,633.89	208	221	TRUE	
SNU216_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	3	3	3	0.02%	10.80%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	4.49	0.136	0	0	1	0	2	2,558.08	114	135	TRUE	
SNU216_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	3	3	3	0.02%	10.80%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	4.72	0.431	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216_PC4_01	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	3	3	3	0.02%	10.80%	TGVTSTSDSEEEGDDQEGEKKR	K	K	91.60%	3.95	0.0203	0	1	0	0	2	2,543.97	267	288	TRUE	
SNU216_PC4_01	Mitogen-activated protein kinase 1	IPI00003479	41,260.70	99.80%	1	1	1	0.01%	5.29%	VADPDHDHTGFLTEYVATR	R	W	95.00%	4.71	0.533	0	0	1	0	2	2,223.97	172	190	TRUE	
SNU216_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	11.80%	QSSPSGSEQLVR	R	R	95.00%	2.59	0.235	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	11.80%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	81.70%	7.08	0.0002	0	0	1	0	2	3,066.27	16	41	TRUE	
SNU216_PC4_01	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	11.80%	STGSPTQETQAPFIAK	K	R	95.00%	3.2	0.326	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216_PC4_01	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	1	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.79	0.536	0	1	0	0	2	2,323.85	116	134	TRUE	
SNU216_PC4_01	PDZ and LIM domain protein 5	IPI00007935	63,839.90	99.80%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	3.41	0.35	0	1	0	0	2	1,630.88	101	115	TRUE	
SNU216_PC4_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	2.08%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.07	0.488	0	1	0	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC4_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	2.08%	VPSSDEEVVEEPQSR	R	R	95.00%	3.62	0.452	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC4_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.80%	2	2	2	0.01%	3.63%	DKEVSDDEAEEK	R	E	95.00%	2.34	0.285	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC4_01	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	99.80%	2	2	2	0.01%	3.63%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	3.05	0.394	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.61	0.282	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SSPQLDPLR	R	K	95.00%	1.84	0.324	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SSPQLDPLRK	R	S	89.20%	1.91	0.264	0	1	0	0	2	1,220.60	182	191	TRUE	
SNU216_PC4_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	91.50%	3.65	0.161	0	0	0	1	2	3,491.75	182	214	TRUE	
SNU216_PC4_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	4	4	7	0.04%	13.00%	DYGHSSSRDDYPSR	R	G	95.00%	2.44	0.305	0	1	0	0	2	1,721.66	245	258	TRUE	
SNU216_PC4_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	4	4	7	0.04%	13.00%	GFAFVTFESPADAK	R	D	95.00%	1.91	0.335	0	1	0	0	2	1,566.69	50	63	TRUE	
SNU216_PC4_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	4	4	7	0.04%	13.00%	GLPPSMER	R	G	95.00%	1.48	0.353	0	4	0	0	2	966.4116	348	355	TRUE	
SNU216_PC4_01	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	4	4	7	0.04%	13.00%	RDVYLSPRDDGYSTK	R	D	95.00%	2.52	0.349	0	1	0	0	2	1,851.83	203	217	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	5	5	5	0.03%	12.90%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	4.81	0.48	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	5	5	5	0.03%	12.90%	DLKIESDVQEPTEPEDDLDIMLGNKK	K	K	95.00%	4.04	0.364	0	0	1	0	2	3,051.41	100	125	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	5	5	5	0.03%	12.90%	IESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	3.75	0.414	0	1	0	0	2	2,567.11	103	124	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	5	5	5	0.03%	12.90%	IESDVQEPTEPEDDLDIMLGNKK	K	K	95.00%	4.32	0.363	0	0	1	0	2	2,695.21	103	125	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	5	5	5	0.03%	12.90%	KKDASDDLDDLNFFNQK	R	K	95.00%	3.38	0.191	0	0	1	0	2	2,092.92	63	79	TRUE	
SNU216_PC4_01	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	EPAITSQNSPEAR	K	E	95.00%	2.66	0.387	0	1	0	0	2	1,479.65	92	104	TRUE	
SNU216_PC4_01	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	KEPAITSQNSPEAR	K	E	95.00%	2.94	0.131	0	1	0	0	2	1,607.74	91	104	TRUE	
SNU216_PC4_01	Isoform 1 of Transcription elongation factor A pro	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	KKEPAITSQNSPEAR	K	E	95.00%	3.83	0.396	0	1	1	0	2	1,735.84	90	104	TRUE	
SNU216_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	8	9	0.06%	16.30%	AEDGATPSPSNETPK	K	K	95.00%	2.76	0.388	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	8	9	0.06%	16.30%	AEDGATPSPSNETPKK	K	K	95.00%	3.31	0.318	0	2	1	0	2	1,708.74	137	152	TRUE	
SNU216_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	8	9	0.06%	16.30%	AEDGATPSPSNETPKKK	K	K	95.00%	3.2	0.298	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	8	9	0.06%	16.30%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.29	0.405	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC4_01	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	8	9	0.06%	16.30%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.83	0.414	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	4.38	0.561	0	1	1	0	2	2,506.85	272	293	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.66	0.5	0	3	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	4.22	0.691	0	4	2	0	2	2,858.93	238	262	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	6.73	0.447	0	0	1	0	2	3,790.49	238	271	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	6.31	0.629	0	0	4	4	2	4,293.68	238	275	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	NDKSEEEQSSSSVK	K	K	95.00%	3.03	0.434	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	4.31	0.376	0	2	2	0	2	2,320.00	211	230	TRUE	
SNU216_PC4_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	26	0.16%	28.30%	SEEEQSSSSVKKDETNVK	K	M	95.00%	4.13	0.0521	0	1	0	0	2	2,090.91	220	237	TRUE	
SNU216_PC4_01	40S ribosomal protein S6	IPI00021840	28,681.70	100.00%	1	1	1	0.01%	6.43%	LSSLRASTSKSESSQK	R	-	89.10%	2.42	0.173	0	1	0	0	2	1,775.85	234	249	TRUE	
SNU216_PC4_01	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	3	5	5	0.03%	8.98%	RPDPDSDEDEDYER	R	E	95.00%	4.02	0.607	0	1	1	0	2	1,817.65	150	163	TRUE	
SNU216_PC4_01	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	3	5	5	0.03%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	3.79	0.354	0	1	1	0	2	2,102.79	150	165	TRUE	
SNU216_PC4_01	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	3	5	5	0.03%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.51	0.51	0	1	0	0	2	2,052.92	222	241	TRUE	
SNU216_PC4_01	Junctional adhesion molecule A precursor	IPI00001754,IPI00069985,IP	28,231.40	99.80%	1	1	1	0.01%	5.02%	VIYSQPSARSEGEFK	K	Q	95.00%	2.9	0.351	0	1	0	0	2	1,777.82	239	253	TRUE	
SNU216_PC4_01	MSTP017	IPI00022305	48,164.00	99.80%	1	1	1	0.01%	4.77%	KFVEWLQNAEEESESEGEEN	K	-	95.00%	3.84	0.403	0	1	0	0	2	2,462.99	400	419	TRUE	
SNU216_PC4_01	Translocation protein SEC62	IPI00019004	45,863.10	98.60%	1	1	2	0.01%	4.01%	SQHSSGNGNDFEMITK	R	E	95.00%	3.44	0.543	0	2	0	0	2	1,831.73	353	368	TRUE	
SNU216_PC4_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	7	7	0.04%	4.25%	KLGAGEGGEASVSPEK	K	T	95.00%	3.14	0.312	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC4_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	7	7	0.04%	4.25%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.78	0.156	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC4_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	7	7	0.04%	4.25%	LGAGEGGEASVSPEK	K	T	95.00%	3.42	0.467	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC4_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	7	7	0.04%	4.25%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.94	0.325	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC4_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	7	7	0.04%	4.25%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.06	0.306	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC4_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	7	7	0.04%	4.25%	TSQVGAASAPAKESPR	K	K	95.00%	3.3	0.461	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216_PC4_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	7	7	0.04%	4.25%	TSQVGAASAPAKESPRK	K	G	95.00%	3.03	0.295	0	0	1	0	2	1,764.86	291	307	TRUE	
SNU216_PC4_01	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.00%	2	2	2	0.01%	10.50%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	4.51	0.533	0	0	1	0	2	2,916.11	144	170	TRUE	
SNU216_PC4_01	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.00%	2	2	2	0.01%	10.50%	AESPSPAPPPGLR	R	G	79.70%	2.14	0.193	0	1	0	0	2	1,355.64	306	318	TRUE	
SNU216_PC4_01	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAK	R	K	95.00%	3.59	0.303	0	1	1	0	2	1,435.68	24	35	TRUE	
SNU216_PC4_01	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAKK	R	L	95.00%	2.86	0.294	0	1	1	0	2	1,563.78	24	36	TRUE	
SNU216_PC4_01	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	99.80%	1	1	1	0.01%	6.32%	KPEDVLDDDDAGSAPLK	K	S	95.00%	3.39	0.211	0	1	0	0	2	1,864.82	234	250	TRUE	
SNU216_PC4_01	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	2	4	0.02%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	4.59	0.453	0	0	3	1	2	2,565.01	131	153	TRUE	
SNU216_PC4_01	plectin 1 isoform 6	IPI00186711	531,783.90	99.80%	2	3	3	0.02%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	2.59	0.342	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	plectin 1 isoform 6	IPI00186711	531,783.90	99.80%	2	3	3	0.02%	0.88%	SSSVGSSSSYPISPAVSR	R	T	91.00%	3.78	0.0505	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC4_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.90%	2	2	2	0.01%	7.93%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.24	0.502	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216_PC4_01	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	99.90%	2	2	2	0.01%	7.93%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.58	0.483	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC4_01	Septin-7	IPI00033025,IPI00552502	48,807.20	100.00%	1	1	1	0.01%	3.65%	GQLTKSPLAQMEEERR	K	E	92.90%	2.63	0.203	0	0	1	0	2	1,952.93	310	325	TRUE	
SNU216_PC4_01	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	3	3	3	0.02%	17.30%	ARSNENLDKIDMSLDDIIK	K	L	95.00%	4.92	0.352	0	0	1	0	2	2,270.07	21	39	TRUE	
SNU216_PC4_01	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	3	3	3	0.02%	17.30%	GISPMNRPPLSDKNIEQYFPVLK	K	R	95.00%	4.16	0.239	0	0	1	0	2	2,723.36	116	138	TRUE	
SNU216_PC4_01	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	3	3	3	0.02%	17.30%	LVGATATSSPPPK	R	A	93.90%	2.3	0.201	0	1	0	0	2	1,305.65	8	20	TRUE	
SNU216_PC4_01	Plakophilin-3	IPI00026952	87,084.70	99.90%	2	2	2	0.01%	4.89%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.54	0.223	0	1	0	0	2	2,142.05	308	326	TRUE	
SNU216_PC4_01	Plakophilin-3	IPI00026952	87,084.70	99.90%	2	2	2	0.01%	4.89%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	3.62	0.32	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216_PC4_01	Eukaryotic translation initiation factor 3 subunit 1	IPI00290461	29,063.30	99.80%	1	1	1	0.01%	5.04%	VLTPEEQLADKLR	K	L	95.00%	2.24	0.262	0	1	0	0	2	1,591.81	107	119	TRUE	
SNU216_PC4_01	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	4	6	0.04%	17.30%	APAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	4.27	0.593	0	2	1	0	2	2,414.09	51	73	TRUE	
SNU216_PC4_01	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	4	6	0.04%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	A	95.00%	4.33	0.488	0	0	0	1	2	3,018.46	20	50	TRUE	
SNU216_PC4_01	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	4	6	0.04%	17.30%	KAPAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	4.14	0.436	0	0	2	0	2	2,542.18	50	73	TRUE	
SNU216_PC4_01	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	99.80%	2	3	3	0.02%	22.40%	APPGAPGPGPGSGAPGSQEEEEEPGLVEGD	R	A	95.00%	4.33	0.326	0	0	1	0	2	4,385.95	79	123	TRUE	
SNU216_PC4_01	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	99.80%	2	3	3	0.02%	22.40%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	4	0.367	0	1	1	0	2	2,307.02	146	166	TRUE	
SNU216_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.60%	AHTPTPGIYMGR	R	P	95.00%	1.96	0.324	0	1	0	0	2	1,380.61	200	211	TRUE	
SNU216_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.60%	AHTPTPGIYMGRPTHSGGGGGGGGGGGGG	R	R	95.00%	4.26	0.359	0	0	1	1	2	2,871.25	200	232	TRUE	
SNU216_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.60%	RAHTPTPGIYMGRPTHSGGGGGGGGGGGG	K	R	95.00%	6.93	0.0739	0	0	0	1	2	3,027.35	199	232	TRUE	
SNU216_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.60%	RRSPSPYYSR	R	Y	95.00%	2.61	0.208	0	0	1	0	2	1,348.62	258	267	FALSE	IPI00555647,IPI00301503
SNU216_PC4_01	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	15.60%	RSPSPYYSR	R	Y	87.50%	2.63	0.128	1	2	0	0	2	1,192.51	259	267	FALSE	IPI00555647,IPI00301503
SNU216_PC4_01	Nibrin	IPI00299463,IPI00607775	75,970.60	99.80%	1	1	1	0.01%	2.12%	IPNYQLSPTKLPSINK	R	S	95.00%	3.17	0.25	0	1	0	0	2	1,892.99	344	359	TRUE	
SNU216_PC4_01	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	2	2	2	0.01%	3.77%	GKLEAIITPPPAK	K	K	95.00%	2.93	0.381	0	1	0	0	2	1,414.77	122	134	TRUE	
SNU216_PC4_01	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	2	2	2	0.01%	3.77%	GKLEAIITPPPAKK	K	A	95.00%	2.83	0.232	0	1	0	0	2	1,542.87	122	135	TRUE	
SNU216_PC4_01	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.37	0.251	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216_PC4_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.95	0.374	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC4_01	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	4	5	0.03%	14.50%	LNTSDFQK	R	L	95.00%	1.87	0.296	0	1	0	0	2	1,032.44	264	271	TRUE	
SNU216_PC4_01	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	4	5	0.03%	14.50%	SLPVSVPVWGFK	K	E	95.00%	1.97	0.396	0	1	0	0	2	1,395.71	203	214	TRUE	
SNU216_PC4_01	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	4	5	0.03%	14.50%	SSDEENGPPSSPDLDR	R	I	95.00%	2.91	0.298	0	2	0	0	2	1,781.69	222	237	TRUE	
SNU216_PC4_01	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	4	5	0.03%	14.50%	TEARSSDEENGPPSSPDLDR	R	I	95.00%	4.59	0.0061	0	1	0	0	2	2,318.88	218	237	TRUE	
SNU216_PC4_01	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	3	8	0.05%	7.59%	LGAGGGSPEKSPSAQELK	R	E	95.00%	3.9	0.375	0	3	0	0	2	1,792.85	13	30	TRUE	
SNU216_PC4_01	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	3	8	0.05%	7.59%	LGAGGGSPEKSPSAQELKEQGNR	R	L	95.00%	5.05	0.344	0	2	3	0	2	2,377.11	13	35	TRUE	
SNU216_PC4_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.79	0.373	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC4_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.61	0.476	0	0	0	1	2	2,990.55	202	227	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	KLENSPLGEALR	K	S	86.60%	2.6	0.118	0	1	0	0	2	1,406.70	104	115	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	LENSPLGEALR	K	S	95.00%	2.15	0.257	0	1	0	0	2	1,278.61	105	115	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	RSSPPGHYYQK	R	S	95.00%	2.91	0.271	0	1	1	0	2	1,399.62	121	131	TRUE	
SNU216_PC4_01	Protein C20orf77	IPI00009659	36,900.80	100.00%	4	5	6	0.04%	16.00%	LSMEDSKSPPPK	K	A	95.00%	3.05	0.454	0	2	0	0	2	1,395.62	127	138	TRUE	
SNU216_PC4_01	Protein C20orf77	IPI00009659	36,900.80	100.00%	4	5	6	0.04%	16.00%	LSMEDSKSPPPKATEEK	K	K	95.00%	2.65	0.196	0	1	0	0	2	1,953.89	127	143	TRUE	
SNU216_PC4_01	Protein C20orf77	IPI00009659	36,900.80	100.00%	4	5	6	0.04%	16.00%	RTFQQIQEEEDDDYPGSYSPQDPSAGPLLTE	K	A	95.00%	6.64	0.0454	0	0	1	0	2	4,075.83	148	182	TRUE	
SNU216_PC4_01	Protein C20orf77	IPI00009659	36,900.80	100.00%	4	5	6	0.04%	16.00%	TFQQIQEEEDDDYPGSYSPQDPSAGPLLTEE	R	A	95.00%	4.66	0.197	0	0	1	1	2	3,919.73	149	182	TRUE	
SNU216_PC4_01	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	1	2	5	0.03%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.99	0.515	0	2	3	0	2	1,917.95	294	311	TRUE	
SNU216_PC4_01	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	2	2	2	0.01%	11.70%	GALQNIIPASTGAAK	R	A	95.00%	2.83	0.201	0	1	0	0	2	1,491.76	200	214	TRUE	
SNU216_PC4_01	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	2	2	2	0.01%	11.70%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	3.91	0.307	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216_PC4_01	Small acidic protein	IPI00003419	20,332.70	100.00%	2	2	2	0.01%	13.10%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.34	0.645	0	1	0	0	2	2,514.99	15	37	TRUE	
SNU216_PC4_01	Small acidic protein	IPI00003419	20,332.70	100.00%	2	2	2	0.01%	13.10%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	4.84	0.566	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC4_01	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	1	1	1	0.01%	4.22%	KVSKQEEASGGPTAPK	R	A	95.00%	3.29	0.45	0	1	0	0	2	1,693.82	236	251	TRUE	
SNU216_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	7	10	10	0.06%	10.90%	ETQSPEQVKSEK	K	L	95.00%	2.84	0.334	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	7	10	10	0.06%	10.90%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	5.53	0.45	0	0	1	0	2	2,726.13	369	391	TRUE	
SNU216_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	7	10	10	0.06%	10.90%	KAEGEPQEESPLKSK	K	S	95.00%	4.54	0.457	0	1	0	0	2	1,736.81	168	182	TRUE	
SNU216_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	7	10	10	0.06%	10.90%	KETQSPEQVKSEK	K	L	95.00%	3.4	0.322	0	1	0	0	2	1,597.75	492	504	TRUE	
SNU216_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	7	10	10	0.06%	10.90%	LKDLFDYSPPLHK	K	N	95.00%	2.97	0.274	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	7	10	10	0.06%	10.90%	NTPSQHSHSIQHSPER	K	S	95.00%	3.16	0.329	0	1	1	1	2	1,921.83	256	271	TRUE	
SNU216_PC4_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	7	10	10	0.06%	10.90%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.7	0.439	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC4_01	Isoform 1 of Protein NDRG3	IPI00005605	41,408.90	100.00%	1	1	2	0.01%	4.53%	THSTSSSLGSGESPFSR	R	S	91.60%	2.95	0.118	0	2	0	0	2	1,803.75	329	345	TRUE	
SNU216_PC4_01	Isoform 3 of Anamorsin	IPI00025333,IPI00387130	33,583.00	99.80%	1	2	2	0.01%	5.35%	KSSPSVKPAVDPAAAK	K	L	95.00%	3.91	0.386	0	1	1	0	2	1,632.84	181	196	TRUE	
SNU216_PC4_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	5	0.03%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	4.24	0.461	0	2	1	0	2	1,885.89	8	24	TRUE	
SNU216_PC4_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	5	0.03%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.36	0.289	0	0	2	0	2	2,858.38	8	33	TRUE	
SNU216_PC4_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	99.90%	2	2	2	0.01%	2.38%	DKSDSDTEGLLFSR	R	D	95.00%	2.59	0.244	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC4_01	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	99.90%	2	2	2	0.01%	2.38%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.06	0.328	0	0	1	0	2	2,460.13	639	659	TRUE	
SNU216_PC4_01	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.70%	2	2	2	0.01%	14.60%	GSYNGQVGWFPSNYVTEEGDSPLGDHVGS	R	L	95.00%	5.25	0.0894	0	0	1	0	2	3,592.55	146	178	TRUE	
SNU216_PC4_01	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.70%	2	2	2	0.01%	14.60%	RKPSVPDSASPADDSFVDPGER	K	L	95.00%	4.36	0.333	0	0	1	1	2	2,409.07	82	103	TRUE	
SNU216_PC4_01	Fibrillarin	IPI00025039	33,784.10	100.00%	1	2	2	0.01%	4.36%	RVSISEGDDKIEYR	K	A	95.00%	4.3	0.522	0	1	1	0	2	1,746.81	122	135	TRUE	
SNU216_PC4_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	2	2	0.01%	4.20%	AHAWPSPYKDYEVK	R	K	95.00%	3.18	0.285	0	1	0	0	2	1,770.79	340	353	TRUE	
SNU216_PC4_01	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	2	2	0.01%	4.20%	AHAWPSPYKDYEVKK	K	E	95.00%	3.34	0.198	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216_PC4_01	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	DATPPVSPINMEDQER	R	I	95.00%	2.8	0.387	0	1	0	0	2	1,958.76	253	268	TRUE	
SNU216_PC4_01	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	SRDATPPVSPINMEDQER	R	I	95.00%	3.59	0.472	0	1	0	0	2	2,201.89	251	268	TRUE	
SNU216_PC4_01	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	99.80%	1	1	1	0.01%	1.68%	ERSPALKSPLQSVVVR	R	R	95.00%	3.68	0.418	0	0	1	0	2	1,845.99	246	261	TRUE	
SNU216_PC4_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	2	2	2	0.01%	6.12%	AAESETPGKSPEK	K	K	95.00%	2.91	0.405	0	1	0	0	2	1,410.62	418	430	TRUE	
SNU216_PC4_01	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	2	2	2	0.01%	6.12%	ATNESEDEIPQLVPIGK	K	K	84.60%	1.96	0.229	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216_PC4_01	DNA-repair protein XRCC1	IPI00002564	69,525.80	98.60%	1	1	1	0.01%	2.05%	AIGSTSKPQESPK	R	G	95.00%	2.28	0.315	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC4_01	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	5.35%	KRSVQEGENPDDGVR	R	G	95.00%	4.32	0.345	0	0	1	0	2	1,765.79	12	26	TRUE	
SNU216_PC4_01	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	5.35%	SVQEGENPDDGVRGSPPEDYR	R	L	95.00%	2.45	0.31	0	1	0	0	2	2,382.98	14	34	TRUE	
SNU216_PC4_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	3.63	0.444	0	1	0	0	2	1,529.66	311	325	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_01	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	3.95	0.406	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	6	8	11	0.07%	20.90%	AKKPAGATPK	K	K	83.20%	2.32	0.129	0	1	0	0	2	1,048.56	130	139	TRUE	
SNU216_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	6	8	11	0.07%	20.90%	ATKSPAKPK	K	A	95.00%	1.83	0.329	0	1	0	0	2	1,007.53	185	193	TRUE	
SNU216_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	6	8	11	0.07%	20.90%	AVKKTPK	K	K	94.20%	1.66	0.274	0	1	0	0	2	851.4752	150	156	TRUE	
SNU216_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	6	8	11	0.07%	20.90%	KPAGATPK	K	K	91.20%	1.89	0.216	0	1	0	0	2	849.4232	132	139	TRUE	
SNU216_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	6	8	11	0.07%	20.90%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.96	0.386	0	4	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC4_01	Histone H1.5	IPI00217468	22,450.50	100.00%	6	8	11	0.07%	20.90%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.36	0.403	0	1	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC4_01	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	99.80%	2	2	2	0.01%	3.20%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	2.5	0.247	0	0	1	0	2	1,957.90	293	311	TRUE	
SNU216_PC4_01	Isoform IIA of Myc box-dependent-interacting pr	IPI00186966,IPI00220587,IP	64,699.10	99.80%	2	2	2	0.01%	3.20%	SPSPPDGSPAATPEIR	K	V	95.00%	2.8	0.524	0	1	0	0	2	1,658.74	296	311	TRUE	
SNU216_PC4_01	Importin alpha-2 subunit	IPI00002214	57,862.50	99.80%	1	1	1	0.01%	3.21%	NVSSFPDDATSPLQENR	R	N	95.00%	4.11	0.549	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216_PC4_01	Calumenin precursor	IPI00014537	38,052.00	100.00%	2	3	3	0.02%	9.91%	VHHEPQLSDKVHNDAQSFDYDHDAFLGAI	R	T	95.00%	5.08	0.488	0	0	1	1	2	3,729.62	36	67	TRUE	
SNU216_PC4_01	Calumenin precursor	IPI00014537	38,052.00	100.00%	2	3	3	0.02%	9.91%	VHNDAQSFDYDHDAFLGAEEAK	K	T	95.00%	2.99	0.324	0	0	1	0	2	2,559.05	46	67	TRUE	
SNU216_PC4_01	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.50%	1	1	1	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	3.29	0.244	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216_PC5_01	Density-regulated protein	IPI00306280	22,285.70	100.00%	2	3	3	0.02%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	5.61	0.597	0	1	1	0	2	2,797.24	69	94	TRUE	
SNU216_PC5_01	Density-regulated protein	IPI00306280	22,285.70	100.00%	2	3	3	0.02%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEKK	K	K	95.00%	4.86	0.353	0	0	1	0	2	2,925.34	69	95	TRUE	
SNU216_PC5_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.80%	2	3	3	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.28	0.386	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216_PC5_01	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.80%	2	3	3	0.02%	10.10%	RSPSPYYSR	R	D	95.00%	2.22	0.227	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216_PC5_01	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	2.9	0.351	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216_PC5_01	Calponin-3	IPI00216682,IPI00642542	20,209.00	99.00%	1	1	1	0.01%	3.65%	RHLYDPKMQTDK	R	P	80.60%	2.06	0.239	0	0	1	0	2	1,707.70	145	156	TRUE	
SNU216_PC5_01	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	1	1	1	0.01%	6.54%	NLGSINTELQDVQR	R	I	95.00%	2.84	0.397	0	1	0	0	2	1,666.78	133	146	TRUE	
SNU216_PC5_01	Isoform 1 of Acidic leucine-rich nuclear phosphop	IPI00007423	28,788.70	99.80%	1	1	1	0.01%	4.38%	KRETDDEGEDD	R	-	95.00%	2.5	0.348	0	1	0	0	2	1,388.49	241	251	TRUE	
SNU216_PC5_01	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.63	0.324	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.99%	DNSPPPAFKPEPPK	R	A	95.00%	2.28	0.367	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.99%	GRSIDQDYER	R	A	95.00%	2.25	0.292	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.99%	GSYGSDAEEEEYR	R	Q	95.00%	2.46	0.367	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.99%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.57	0.249	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.99%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.12	0.491	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.99%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	3.03	0.224	0	0	1	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC5_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	7	7	7	0.04%	8.99%	SREHPHSRSPSPEPR	R	G	95.00%	1.76	0.346	0	1	0	0	2	1,995.76	286	300	TRUE	
SNU216_PC5_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	3.26%	IEEVLSPEGSPSKSPSKK	K	K	95.00%	3.86	0.328	0	0	1	0	2	1,978.97	636	653	TRUE	
SNU216_PC5_01	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	3.26%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	5.31	0.0378	0	1	0	0	2	2,292.10	632	652	TRUE	
SNU216_PC5_01	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	2	2	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	3.96	0.446	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216_PC5_01	Isoform B of Ras-related C3 botulinum toxin subs	IPI00219675	23,468.00	100.00%	1	1	1	0.01%	7.58%	LRPLSYPQTVGETYGK	R	D	95.00%	3.09	0.397	0	1	0	0	2	1,888.92	67	82	TRUE	
SNU216_PC5_01	RNA binding motif protein 25	IPI00004273	100,189.10	99.80%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVK	K	R	95.00%	3.12	0.344	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC5_01	RNA binding motif protein 25	IPI00004273	100,189.10	99.80%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVKR	K	K	95.00%	2.82	0.407	0	1	0	0	2	1,591.76	672	686	TRUE	
SNU216_PC5_01	MRG-binding protein	IPI00019451	22,416.80	99.80%	2	2	2	0.01%	9.80%	VLTANSNPSSPSAAKR	K	R	95.00%	3.37	0.488	0	1	0	0	2	1,679.81	186	201	TRUE	
SNU216_PC5_01	MRG-binding protein	IPI00019451	22,416.80	99.80%	2	2	2	0.01%	9.80%	VTDKVLTANSNPSSPSAAK	R	R	95.00%	4.63	0.328	0	1	0	0	2	1,966.95	182	200	TRUE	
SNU216_PC5_01	Cell division protein kinase 2	IPI00031681	33,930.70	99.80%	1	1	1	0.01%	4.03%	TYTHEVVTLWYR	R	A	95.00%	2.21	0.303	0	1	0	0	2	1,647.76	158	169	TRUE	
SNU216_PC5_01	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	90.40%	5.28	0.0646	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216_PC5_01	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	1	1	1	0.01%	3.66%	VWSPLVTEEGKR	K	H	95.00%	2.34	0.254	0	1	0	0	2	1,480.72	87	98	TRUE	
SNU216_PC5_01	Isoform 1 of RNA-binding protein 8A	IPI00001757	19,889.40	99.80%	1	2	3	0.02%	10.90%	MREDYDSVEQDGDEPGPQR	R	S	95.00%	4.09	0.482	0	1	2	0	2	2,302.89	50	68	TRUE	
SNU216_PC5_01	N-terminal acetyltransferase complex ARD1 subuı	IPI00013184	26,459.00	100.00%	1	1	1	0.01%	11.50%	GLAAEDSGGDSKDLSEVSETTESTDVK	K	D	95.00%	3.17	0.234	0	0	1	0	2	2,807.20	199	225	TRUE	
SNU216_PC5_01	Bcl2-antagonist of cell death	IPI00024291	18,391.90	99.80%	2	3	3	0.02%	20.20%	HSSYPAGTEDDEGMGEEPSPFR	R	G	95.00%	4.37	0.442	0	0	1	0	2	2,474.94	73	94	TRUE	
SNU216_PC5_01	Bcl2-antagonist of cell death	IPI00024291	18,391.90	99.80%	2	3	3	0.02%	20.20%	RMSDEFVDSFKK	R	G	95.00%	3.22	0.286	0	1	1	0	2	1,568.68	116	127	TRUE	
SNU216_PC5_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	24	0.14%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.65	0.624	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216_PC5_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	24	0.14%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	5.8	0.238	0	0	2	0	2	4,104.59	78	115	TRUE	
SNU216_PC5_01	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	24	0.14%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	7.59	0.251	0	0	9	11	2	4,260.69	78	116	TRUE	
SNU216_PC5_01	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	99.80%	2	3	3	0.02%	15.30%	EEDEENDNDNESDHDEADS	R	-	95.00%	3.02	0.632	0	1	0	0	2	2,287.69	113	131	TRUE	
SNU216_PC5_01	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	99.80%	2	3	3	0.02%	15.30%	REEDEENDNDNESDHDEADS	K	-	95.00%	4.42	0.57	0	1	1	0	2	2,443.79	112	131	TRUE	
SNU216_PC5_01	FK506-binding protein 3	IPI00024157	25,177.40	100.00%	1	1	1	0.01%	6.25%	ETKSEETLDEGPPK	K	Y	95.00%	2.79	0.285	0	1	0	0	2	1,639.71	97	110	TRUE	
SNU216_PC5_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	10	0.06%	60.00%	KEESEESDDDMGFGLFD	K	-	95.00%	3.5	0.543	0	8	0	0	2	2,029.73	99	115	TRUE	
SNU216_PC5_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	10	0.06%	60.00%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	2.61	0.316	0	0	1	0	2	2,854.40	62	94	TRUE	
SNU216_PC5_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	10	0.06%	60.00%	YVASYLLAALGGNSSPSAK	R	D	95.00%	2.78	0.337	0	1	0	0	2	1,948.94	3	21	TRUE	
SNU216_PC5_01	Proteasome subunit alpha type 5	IPI00291922	26,411.30	100.00%	1	1	1	0.01%	5.39%	ITSPLMEPSSIEK	R	I	95.00%	2.42	0.417	0	1	0	0	2	1,511.71	54	66	TRUE	
SNU216_PC5_01	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	5	5	0.03%	9.68%	KVMDSDEDDDY	R	-	95.00%	2.29	0.386	1	1	0	0	2	1,411.46	114	124	TRUE	
SNU216_PC5_01	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	5	5	0.03%	9.68%	RKVMDSDEDDDY	R	-	95.00%	2.12	0.246	0	1	0	0	2	1,567.56	113	124	TRUE	
SNU216_PC5_01	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	5	5	0.03%	9.68%	VMDSDEDDDY	K	-	95.00%	1.85	0.397	1	1	0	0	2	1,283.37	115	124	TRUE	
SNU216_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	5.60%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.46	0.392	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	5.60%	HGSDPAFAPGPR	R	G	95.00%	2.26	0.319	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	5.60%	RLSLGQGDSTEAATEER	R	G	95.00%	3.18	0.465	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC5_01	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.02%	5.60%	RLSLGQGDSTEAATEERGPR	R	A	91.80%	2.24	0.226	0	0	1	0	2	2,210.02	1001	1020	TRUE	
SNU216_PC5_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.80%	2	2	2	0.01%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	5.63	0.517	0	1	0	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC5_01	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.80%	2	2	2	0.01%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	2.88	0.17	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216_PC5_01	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	100.00%	1	1	3	0.02%	1.35%	QPTPPFFGR	R	D	95.00%	1.75	0.36	0	3	0	0	2	1,126.51	204	212	TRUE	
SNU216_PC5_01	SVH-B	IPI00420025,IPI00555667	33,851.10	99.80%	2	2	2	0.01%	7.79%	SAEDLTDGSYDDVLNAEQLQK	K	L	95.00%	5.43	0.594	0	1	0	0	2	2,391.02	45	65	TRUE	
SNU216_PC5_01	SVH-B	IPI00420025,IPI00555667	33,851.10	99.80%	2	2	2	0.01%	7.79%	SSKSAEDLTDGSYDDVLNAEQLQK	R	L	95.00%	6.61	0.0186	0	0	1	0	2	2,693.18	42	65	TRUE	
SNU216_PC5_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	3.99%	RPDPDSDEDEDYER	R	E	95.00%	4.08	0.569	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC5_01	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	3.99%	RPDPDSDEDEDYERER	R	R	95.00%	2.45	0.336	0	0	1	0	2	2,102.79	57	72	TRUE	
SNU216_PC5_01	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	2	2	0.01%	9.05%	GSPHYFSPFRPY	R	-	89.00%	1.9	0.248	0	1	0	0	2	1,534.65	210	221	TRUE	
SNU216_PC5_01	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	2	2	0.01%	9.05%	STSYGYSR	R	S	95.00%	2.31	0.394	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216_PC5_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.63	0.229	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216_PC5_01	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	3.44	0.371	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216_PC5_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	1	2	2	0.01%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.36	0.539	0	1	1	0	2	2,051.83	68	85	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	4	0.02%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.55	0.611	0	0	1	0	2	2,951.45	55	80	TRUE	
SNU216_PC5_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	4	0.02%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.7	0.379	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC5_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	4	0.02%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.87	0.624	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216_PC5_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.70%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	2.95	0.417	0	1	0	0	2	2,345.83	619	636	TRUE	
SNU216_PC5_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.70%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.07	0.349	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216_PC5_01	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	5.70%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	3.68	0.429	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC5_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.62%	NRSAEEGELAESK	R	S	95.00%	3.49	0.365	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC5_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.62%	VPSSDEEVVEEPQSR	R	R	95.00%	3.43	0.442	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC5_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	4	4	0.02%	19.80%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	5.85	0.388	0	0	1	0	2	3,790.49	238	271	TRUE	
SNU216_PC5_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	4	4	0.02%	19.80%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	7.55	0.546	0	0	1	0	2	4,277.68	238	275	TRUE	
SNU216_PC5_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	4	4	0.02%	19.80%	NDKSEEEQSSSSVK	K	K	95.00%	2.13	0.283	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216_PC5_01	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	4	4	4	0.02%	19.80%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	2.79	0.224	0	0	1	0	2	2,320.00	211	230	TRUE	
SNU216_PC5_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	GSDPASGEVEASQLR	R	R	95.00%	2.55	0.329	0	1	0	0	2	1,582.67	106	120	TRUE	
SNU216_PC5_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	4.13	0.453	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216_PC5_01	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	2.84	0.322	0	1	0	0	2	1,894.88	104	120	TRUE	
SNU216_PC5_01	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	99.00%	1	1	1	0.01%	1.90%	EDMDISKSAEEPQEK	R	V	80.30%	2.69	0.122	0	1	0	0	2	1,815.74	184	198	TRUE	
SNU216_PC5_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	5	8	32	0.19%	16.80%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.06	0.517	0	8	5	0	2	2,517.99	234	254	TRUE	
SNU216_PC5_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	5	8	32	0.19%	16.80%	QRSLGPSLATDKS	R	-	95.00%	2.76	0.395	0	1	0	0	2	1,439.69	268	280	TRUE	
SNU216_PC5_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	5	8	32	0.19%	16.80%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.89	0.624	0	14	1	0	2	2,389.89	235	254	TRUE	
SNU216_PC5_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	5	8	32	0.19%	16.80%	VEEEQEADEEDVSEEEAESKEGTNK	K	D	95.00%	4.43	0.423	0	0	1	0	2	2,919.14	235	259	TRUE	
SNU216_PC5_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	5	8	32	0.19%	16.80%	VEEEQEADEEDVSEEEAESKEGTNKDFPQN	K	Q	95.00%	5.61	0.417	0	0	1	1	2	3,860.61	235	267	TRUE	
SNU216_PC5_01	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	2	3	0.02%	11.80%	EPVADEEEEDSDDDVEPITEFR	K	F	95.00%	3.64	0.454	0	1	0	0	2	2,645.03	92	113	TRUE	
SNU216_PC5_01	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	2	3	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.07	0.612	0	0	2	0	2	3,394.35	86	113	TRUE	
SNU216_PC5_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	2	2	2	0.01%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.76	0.409	0	1	0	0	2	1,796.71	490	504	TRUE	
SNU216_PC5_01	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	2	2	2	0.01%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.17	0.211	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC5_01	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	2	2	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.43	0.537	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216_PC5_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	KSPRPAGPQLFLPDPDPQR	R	G	95.00%	4.02	0.401	0	0	1	0	2	2,196.10	151	169	TRUE	
SNU216_PC5_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	LAAAEETAVSPR	R	K	95.00%	2.78	0.408	0	1	0	0	2	1,294.60	139	150	TRUE	
SNU216_PC5_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	LAAAEETAVSPRKSPR	R	P	85.10%	2.05	0.225	0	1	0	0	2	1,842.85	139	154	TRUE	
SNU216_PC5_01	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	4	4	4	0.02%	15.70%	RLAAAEETAVSPR	R	K	95.00%	2.87	0.366	0	0	1	0	2	1,450.71	138	150	TRUE	
SNU216_PC5_01	40S ribosomal protein S17	IPI00221093	15,419.30	100.00%	1	2	2	0.01%	16.40%	LLDFGSLSNLQVTQPTVGMNFK	K	T	95.00%	4.41	0.405	0	1	1	0	2	2,489.21	107	128	TRUE	
SNU216_PC5_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	3	0.02%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.59	0.428	0	1	0	0	2	1,885.89	8	24	TRUE	
SNU216_PC5_01	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	3	3	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	94.10%	5.53	0.0678	0	0	1	1	2	2,858.38	8	33	TRUE	
SNU216_PC5_01	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	1	1	1	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.87	0.337	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC5_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	3	3	3	0.02%	22.80%	GLLSDSMTDVPVDTGVAAR	K	T	95.00%	3.84	0.49	0	1	0	0	2	1,983.91	16	34	TRUE	
SNU216_PC5_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	3	3	3	0.02%	22.80%	MDSAGQDINLNSPNKGLLSDSMTDVPVDT	-	T	95.00%	4.3	0.25	0	0	1	0	2	3,664.59	1	34	TRUE	
SNU216_PC5_01	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	3	3	3	0.02%	22.80%	SWHDVQVSSAYVK	R	T	95.00%	2.65	0.325	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216_PC5_01	Isoform 1 of PEST-containing nuclear protein	IPI00291608	18,925.40	99.80%	1	2	3	0.02%	13.50%	TLSVAAAFNEDEDSEPEEMPPEAK	K	M	95.00%	4.17	0.547	0	2	1	0	2	2,686.11	106	129	TRUE	
SNU216_PC5_01	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	1	1	1	0.01%	3.09%	IPSKEEEADMSSPTQR	K	T	85.40%	2.12	0.215	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC5_01	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	3.81	0.195	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216_PC5_01	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	5	5	6	0.03%	18.90%	IISTTASKTETPIVSK	K	S	95.00%	2.99	0.362	0	1	0	0	2	1,755.91	140	155	TRUE	
SNU216_PC5_01	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	5	5	6	0.03%	18.90%	KTVQSNSPISALAPTGK	R	E	95.00%	3.53	0.43	0	1	0	0	2	1,778.91	200	216	TRUE	
SNU216_PC5_01	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	5	5	6	0.03%	18.90%	SLSSSLDDTEVK	K	K	87.80%	1.87	0.291	0	1	0	0	2	1,360.59	156	167	TRUE	
SNU216_PC5_01	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	5	5	6	0.03%	18.90%	SLSSSLDDTEVKK	K	V	95.00%	2.81	0.354	0	2	0	0	2	1,488.68	156	168	TRUE	
SNU216_PC5_01	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	5	5	6	0.03%	18.90%	TVQSNSPISALAPTGK	K	E	80.50%	2.55	0.139	0	1	0	0	2	1,650.81	201	216	TRUE	
SNU216_PC5_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	202,867.80	99.90%	3	3	3	0.02%	1.59%	ARVDHGAEIITQSPGR	K	S	89.50%	3.64	0.142	0	0	1	0	2	1,786.86	1801	1816	TRUE	
SNU216_PC5_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	202,867.80	99.90%	3	3	3	0.02%	1.59%	DKVSDGVTKSPEK	K	R	88.90%	2.21	0.219	0	1	0	0	2	1,469.69	1525	1537	TRUE	
SNU216_PC5_01	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	202,867.80	99.90%	3	3	3	0.02%	1.59%	VDHGAEIITQSPGR	R	S	95.00%	3.81	0.48	0	1	0	0	2	1,559.72	1803	1816	TRUE	
SNU216_PC5_01	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	ADLNQGIGEPQSPSR	R	R	95.00%	2.99	0.335	0	1	0	0	2	1,648.73	63	77	TRUE	
SNU216_PC5_01	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSR	R	R	86.60%	2.45	0.225	0	1	0	0	2	1,804.83	62	77	TRUE	
SNU216_PC5_01	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSRR	R	V	95.00%	2.71	0.329	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.42	0.439	0	2	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.59	0.353	0	1	0	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	GGVTGSPEASISGSK	K	G	95.00%	2.27	0.332	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	GGVTGSPEASISGSKGDLK	K	S	95.00%	2.48	0.345	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	GHYEVTGSDDETGK	K	L	95.00%	2.59	0.489	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.99	0.485	0	1	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	GKGGVTGSPEASISGSK	K	G	95.00%	3.61	0.157	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	5.17	0.442	0	1	1	0	2	2,011.97	2795	2815	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	SKGHYEVTGSDDETGK	K	L	95.00%	2.13	0.29	0	1	0	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC5_01	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.08%	2.57%	SNSFSDER	R	E	95.00%	2.13	0.462	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216_PC5_01	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	99.90%	2	2	2	0.01%	12.60%	RGEAAGSPVPTPPRSPAQEEPTDFLSR	R	L	95.00%	4.01	0.294	0	0	1	0	2	3,089.32	107	133	TRUE	
SNU216_PC5_01	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	99.90%	2	2	2	0.01%	12.60%	SPPSPELQGPPSTEK	K	E	95.00%	2.59	0.308	0	1	0	0	2	1,630.74	192	206	TRUE	
SNU216_PC5_01	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	2	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.91	0.553	0	2	0	0	2	2,243.88	116	134	TRUE	
SNU216_PC5_01	Calnexin precursor	IPI00020984	67,570.20	99.90%	1	1	1	0.01%	3.21%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.64	0.336	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216_PC5_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	2	2	2	0.01%	3.15%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.9	0.528	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC5_01	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	2	2	2	0.01%	3.15%	KETQSPEQVKSEK	K	L	95.00%	2.66	0.399	0	1	0	0	2	1,597.75	492	504	TRUE	
SNU216_PC5_01	14-3-3 protein epsilon	IPI00000816	29,175.00	100.00%	1	1	1	0.01%	11.40%	AAFDDAIAELDTLSEESYKDSTLIMQLLR	K	D	95.00%	5.13	0.332	0	0	1	0	2	3,338.58	197	225	TRUE	
SNU216_PC5_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	14.60%	AGDLLEDSPKRPK	R	E	89.00%	2.56	0.151	0	1	0	0	2	1,505.74	158	170	TRUE	
SNU216_PC5_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	2.94	0.315	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216_PC5_01	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.15	0.22	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	19	0.11%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	3.59	0.363	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	19	0.11%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.52	0.582	0	2	2	0	2	2,375.94	172	191	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	19	0.11%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	3.81	0.417	0	1	1	1	2	2,504.04	172	192	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	19	0.11%	24.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	4.73	0.623	0	2	1	0	2	2,115.85	47	66	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	19	0.11%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	4.51	0.528	0	1	2	0	2	2,484.10	44	66	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	19	0.11%	24.20%	LLKEGEEPTVYSDEEEPK	K	D	95.00%	3.72	0.349	0	1	0	0	2	2,171.96	169	186	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	14	19	0.11%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.51	0.5	0	1	2	1	2	2,730.20	169	191	TRUE	
SNU216_PC5_01	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	2.24	0.347	0	1	0	0	2	1,936.80	562	578	TRUE	
SNU216_PC5_01	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	3.82	0.243	0	0	2	0	2	2,553.13	511	533	TRUE	
SNU216_PC5_01	septin 9	IPI00748715	63,634.10	99.80%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	95.00%	2.36	0.344	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216_PC5_01	septin 9	IPI00748715	63,634.10	99.80%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	4.08	0.51	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC5_01	Putative MAPK activating protein	IPI00470594	16,997.50	99.80%	2	2	2	0.01%	30.30%	ILGSASPEEEQEKPILDRPTR	R	I	95.00%	2.83	0.309	0	0	1	0	2	2,445.20	102	122	TRUE	
SNU216_PC5_01	Putative MAPK activating protein	IPI00470594	16,997.50	99.80%	2	2	2	0.01%	30.30%	SKSPPKVPIVIQDDSLPAGPPPQIR	K	I	95.00%	4.43	0.388	0	0	1	0	2	2,716.44	37	61	TRUE	
SNU216_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	8	9	0.05%	36.60%	DDSHSAEDSEDEKEDHKNVR	K	Q	93.20%	2.73	0.229	0	0	0	1	2	2,421.94	71	90	TRUE	
SNU216_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	8	9	0.05%	36.60%	EEDEEPESPPEKK	K	T	95.00%	2.5	0.265	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	8	9	0.05%	36.60%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	4.31	0.553	0	1	0	0	2	2,445.97	9	28	TRUE	
SNU216_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	8	9	0.05%	36.60%	LKATVTPSPVKGK	R	G	95.00%	3.21	0.463	0	1	1	0	2	1,405.78	174	186	TRUE	
SNU216_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	8	9	0.05%	36.60%	NSQEDSEDSEDKDVK	K	T	95.00%	3.52	0.422	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	8	9	0.05%	36.60%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	2.74	0.395	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216_PC5_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	8	9	0.05%	36.60%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.7	0.19	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216_PC5_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	3	3	0.02%	4.15%	EKEISDDEAEEEK	R	G	95.00%	2.85	0.321	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC5_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	3	3	0.02%	4.15%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.55	0.501	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC5_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	3	3	0.02%	4.15%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.32	0.418	0	1	0	0	2	1,945.79	249	265	TRUE	
SNU216_PC5_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELK	R	R	95.00%	5.08	0.0343	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216_PC5_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELKR	K	R	95.00%	6.15	0.0369	0	0	1	0	2	2,182.98	46	64	TRUE	
SNU216_PC5_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELK	R	R	95.00%	3.03	0.472	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216_PC5_01	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELKR	R	R	95.00%	3.06	0.347	0	1	0	0	2	1,811.78	49	64	TRUE	
SNU216_PC5_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	3	3	0.02%	13.20%	AQLGGPEAAKSDETAAK	R	-	95.00%	3.33	0.405	0	1	0	0	2	1,723.79	189	205	TRUE	
SNU216_PC5_01	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	3	3	0.02%	13.20%	QLSSGVSEIR	R	H	95.00%	2.28	0.318	1	1	0	0	2	1,155.54	80	89	TRUE	
SNU216_PC5_01	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	1	2	3	0.02%	5.82%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	4.53	0.454	0	0	1	2	2	2,333.13	446	466	TRUE	
SNU216_PC5_01	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	1	0.01%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.45	0.356	0	0	1	0	2	1,497.72	192	204	TRUE	
SNU216_PC5_01	NME2 protein	IPI00604590	32,642.20	100.00%	1	1	1	0.01%	5.82%	VMLGETNPADSKPGTIR	R	G	95.00%	2.52	0.352	0	1	0	0	2	1,865.88	114	130	TRUE	
SNU216_PC5_01	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSER	R	E	95.00%	2.8	0.474	0	1	0	0	2	1,418.54	194	207	TRUE	
SNU216_PC5_01	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	3	0.41	0	3	0	0	2	1,724.60	194	209	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	GLGAGAGAGEESPATSLPR	R	M	95.00%	3.72	0.402	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.67	0.536	0	1	1	0	2	2,159.93	200	217	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	2.92	0.393	0	0	2	0	2	2,734.12	200	221	TRUE	
SNU216_PC5_01	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	RGLGAGAGAGEESPATSLPR	R	M	95.00%	4	0.456	0	1	1	0	2	1,933.91	78	97	TRUE	
SNU216_PC5_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	4	0.02%	3.08%	EIQNGNLHESDSESVPR	K	D	95.00%	2.94	0.282	0	1	0	0	2	1,990.85	66	82	TRUE	
SNU216_PC5_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	4	0.02%	3.08%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.6	0.367	0	0	2	0	2	2,247.04	64	82	TRUE	
SNU216_PC5_01	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	4	0.02%	3.08%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.11	0.425	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216_PC5_01	Isoform Alpha of Caveolin-2	IPI00019870,IPI00386526	12,780.50	99.80%	1	1	2	0.01%	15.40%	ADVQLFMDDDSYSHHSGLEYADPEK	K	F	95.00%	4.03	0.28	0	0	2	0	2	2,965.19	8	32	TRUE	
SNU216_PC5_01	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	90.90%	6.23	0.0339	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216_PC5_01	Ras-related protein R-Ras	IPI00020418	23,480.50	100.00%	1	1	1	0.01%	7.34%	KYQEQELPPSPPSAPR	R	K	95.00%	2.56	0.353	0	1	0	0	2	1,903.90	192	207	TRUE	
SNU216_PC5_01	KIAA1143	IPI00410618	17,483.50	100.00%	2	2	2	0.01%	18.20%	IQPQPPDEDGDHSDKEDEQPQVVVLKK	R	G	95.00%	3.26	0.214	0	0	0	1	2	3,150.46	38	64	TRUE	
SNU216_PC5_01	KIAA1143	IPI00410618	17,483.50	100.00%	2	2	2	0.01%	18.20%	RIQPQPPDEDGDHSDKEDEQPQVVVLK	K	K	95.00%	4.93	0.465	0	0	0	1	2	3,178.47	37	63	TRUE	
SNU216_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	6	6	0.03%	26.60%	KVASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	5.02	0.463	0	0	1	0	2	2,986.57	103	133	TRUE	
SNU216_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	6	6	0.03%	26.60%	KVYEDSGIPLPAESPK	R	K	95.00%	4.86	0.389	0	1	0	0	2	1,809.87	83	98	TRUE	
SNU216_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	6	6	0.03%	26.60%	VASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	3.15	0.38	0	0	1	0	2	2,858.47	104	133	TRUE	
SNU216_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	6	6	0.03%	26.60%	VYEDSGIPLPAESPK	K	K	95.00%	3.41	0.451	0	1	0	0	2	1,681.77	84	98	TRUE	
SNU216_PC5_01	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	5	6	6	0.03%	26.60%	VYEDSGIPLPAESPKKGPK	K	K	95.00%	3.04	0.311	0	1	1	0	2	2,092.04	84	102	TRUE	
SNU216_PC5_01	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	99.80%	1	1	1	0.01%	10.00%	DIIRQPSEEEIIK	K	L	95.00%	2.94	0.192	0	1	0	0	2	1,649.81	131	143	TRUE	
SNU216_PC5_01	Small acidic protein	IPI00003419	20,332.70	100.00%	4	7	8	0.05%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.96	0.529	0	1	1	0	2	2,671.09	14	37	TRUE	
SNU216_PC5_01	Small acidic protein	IPI00003419	20,332.70	100.00%	4	7	8	0.05%	13.70%	RSASPDDDLGSSNWEAADLGNEERK	K	Q	95.00%	4.36	0.442	0	0	1	0	2	2,799.19	14	38	TRUE	
SNU216_PC5_01	Small acidic protein	IPI00003419	20,332.70	100.00%	4	7	8	0.05%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.41	0.636	0	2	1	0	2	2,514.99	15	37	TRUE	
SNU216_PC5_01	Small acidic protein	IPI00003419	20,332.70	100.00%	4	7	8	0.05%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	5.38	0.591	0	1	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC5_01	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	2	2	2	0.01%	32.30%	KVSSAEGAAKEEPK	R	R	95.00%	2.45	0.268	0	0	1	0	2	1,510.72	4	17	TRUE	
SNU216_PC5_01	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	2	2	2	0.01%	32.30%	TEESPASDEAGEKEAKSD	K	-	95.00%	3.69	0.499	0	1	0	0	2	1,959.77	82	99	TRUE	
SNU216_PC5_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	4	6	10	0.06%	21.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.43	0.317	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC5_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	4	6	10	0.06%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.99	0.545	0	0	4	2	2	3,657.52	143	174	TRUE	
SNU216_PC5_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	4	6	10	0.06%	21.40%	LNVLEKSSPGHR	R	A	95.00%	2.67	0.231	0	1	1	0	2	1,416.70	111	122	TRUE	
SNU216_PC5_01	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	4	6	10	0.06%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	L	95.00%	3.27	0.276	0	0	1	0	2	3,943.62	144	177	TRUE	
SNU216_PC5_01	BRCA1-associated RING domain protein 1	IPI00017746	86,621.50	99.20%	1	1	1	0.01%	2.19%	DNLIKLVTAGGGQILSR	K	K	95.00%	2.36	0.28	0	1	0	0	2	1,914.95	689	705	TRUE	
SNU216_PC5_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	2.69	0.287	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216_PC5_01	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.42	0.362	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC5_01	Prohibitin-2	IPI00027252	33,297.60	100.00%	1	1	1	0.01%	8.70%	IYLTADNLVLNLQDESFTRGSDSLIK	R	G	95.00%	3.91	0.188	0	0	1	0	2	3,005.49	271	296	TRUE	
SNU216_PC5_01	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	2	3	4	0.02%	13.60%	ERSPSPLRGNVVPSPLPTR	R	R	95.00%	3.68	0.474	0	1	1	0	2	2,299.04	28	46	TRUE	
SNU216_PC5_01	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	2	3	4	0.02%	13.60%	GNVVPSPLPTRR	R	T	95.00%	2.15	0.363	0	2	0	0	2	1,372.71	36	47	TRUE	
SNU216_PC5_01	40S ribosomal protein S10	IPI00008438	18,898.30	100.00%	1	1	1	0.01%	8.48%	AEAGAGSATEFQFR	K	G	95.00%	2.38	0.215	0	1	0	0	2	1,521.64	140	153	TRUE	
SNU216_PC5_01	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	1	1	1	0.01%	2.54%	LPSSPVYEDAASFK	R	A	95.00%	2.81	0.403	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC5_01	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	99.80%	1	1	1	0.01%	1.27%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.47	0.288	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC5_01	Isoform 1 of Presenilin-1	IPI00028077,IPI00219934	52,668.80	99.80%	2	3	5	0.03%	10.50%	AAVQELSSSILAGEDPEER	R	G	95.00%	4.2	0.46	0	3	1	0	2	2,080.94	359	377	TRUE	
SNU216_PC5_01	Isoform 1 of Presenilin-1	IPI00028077,IPI00219934	52,668.80	99.80%	2	3	5	0.03%	10.50%	ESQDTVAENDDGGFSEEWEAQRDSHLGPH	R	S	95.00%	4.79	0.364	0	0	0	1	2	3,478.42	323	352	TRUE	
SNU216_PC5_01	FLJ20625 protein	IPI00016670	17,725.30	100.00%	2	2	2	0.01%	17.40%	KLLLDPSSPPTK	R	A	95.00%	2.86	0.16	0	1	0	0	2	1,375.72	20	31	TRUE	
SNU216_PC5_01	FLJ20625 protein	IPI00016670	17,725.30	100.00%	2	2	2	0.01%	17.40%	MGCCYSSENEDSDQDR	-	E	95.00%	0.234	1	0	0	0	1	2	2,208.56	1	16	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_01	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	2	2	0.01%	12.00%	KLEDVKNSPTFK	K	S	95.00%	3.15	0.24	0	0	1	0	2	1,485.74	124	135	TRUE	
SNU216_PC5_01	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	2	2	0.01%	12.00%	NSPTFKSFEEKVENLK	K	S	95.00%	3.23	0.333	0	1	0	0	2	1,976.94	130	145	TRUE	
SNU216_PC5_01	TP53-regulating kinase	IPI00290305	28,161.20	99.80%	1	1	1	0.01%	8.30%	ATTPADGEEPAPEAEALAAAR	R	E	95.00%	3.67	0.372	0	1	0	0	2	2,117.94	6	26	TRUE	
SNU216_PC5_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.32	0.299	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC5_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.87	0.543	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216_PC5_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	5.38	0.0568	0	1	0	0	2	2,428.13	618	639	TRUE	
SNU216_PC5_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	NDSWGSFDLR	R	A	95.00%	2.02	0.337	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC5_01	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	RTSPQVLGSILK	K	S	95.00%	2.65	0.245	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC5_01	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	2	2	0.01%	2.39%	EQLQPHENGEGNSET	R	-	95.00%	3.34	0.521	0	1	0	0	2	1,748.68	1034	1048	TRUE	
SNU216_PC5_01	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	2	2	0.01%	2.39%	VRPPQEEQEREQLQPHENGEGNSET	R	-	95.00%	3.42	0.27	0	0	1	0	2	2,997.30	1024	1048	TRUE	
SNU216_PC5_01	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	95.00%	3.59	0.407	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216_PC5_01	Cell division protein kinase 7	IPI00000685	39,040.60	99.50%	1	1	1	0.01%	5.78%	PNCPVETLKEQSNPALAIKR	R	K	89.90%	2.68	0.234	0	0	1	0	2	2,345.17	310	329	TRUE	
SNU216_PC5_01	Isoform 1 of Myelin basic protein	IPI00021907,IPI00216474	33,117.70	99.80%	1	1	1	0.01%	10.50%	TTSEDNEVFGEADANQNNGTSSQDTAVTE	R	T	95.00%	4.44	0.535	0	0	1	0	2	3,468.43	38	69	TRUE	
SNU216_PC5_01	Methylated-DNA--protein-cysteine methyltransfer	IPI00028618	21,645.90	99.80%	2	2	2	0.01%	6.76%	GAGATSGSPPAGR	K	-	95.00%	2.45	0.376	0	1	0	0	2	1,165.50	194	206	TRUE	
SNU216_PC5_01	Methylated-DNA--protein-cysteine methyltransfer	IPI00028618	21,645.90	99.80%	2	2	2	0.01%	6.76%	GAGATSGSPPAGRN	K	-	95.00%	2.63	0.374	0	1	0	0	2	1,279.54	194	207	TRUE	
SNU216_PC5_01	GTP-binding protein SAR1a	IPI00015954	22,367.80	100.00%	1	1	1	0.01%	5.56%	IDRTDAISEEK	K	L	94.30%	2.36	0.188	0	1	0	0	2	1,356.60	136	146	TRUE	
SNU216_PC5_01	40S ribosomal protein S3a	IPI00419880	29,814.10	100.00%	1	1	1	0.01%	4.56%	ADGYEPPVQESV	R	-	82.90%	1.39	0.283	1	0	0	0	2	1,370.55	252	263	TRUE	
SNU216_PC5_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	2	0.01%	3.09%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	4.12	0.537	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216_PC5_01	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	99.80%	2	2	2	0.01%	3.09%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.96	0.316	0	0	1	0	2	3,443.49	112	140	TRUE	
SNU216_PC5_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	3	0.02%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	4.26	0.552	0	2	0	0	2	2,304.83	179	197	TRUE	
SNU216_PC5_01	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	3	0.02%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.44	0.491	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216_PC5_01	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	2	0.01%	24.40%	DHANYEEDENGDITPIK	R	A	95.00%	3.5	0.411	0	1	0	0	2	2,039.82	134	150	TRUE	
SNU216_PC5_01	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	2	0.01%	24.40%	HKAEEVEDETVELDVSDEEMAR	K	R	95.00%	5.82	0.417	0	0	1	0	2	2,640.10	95	116	TRUE	
SNU216_PC5_01	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	2	2	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE(	K	T	95.00%	7.32	0.0732	0	0	1	1	2	4,013.68	6	39	TRUE	
SNU216_PC5_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	7.00%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.57	0.183	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216_PC5_01	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	7.00%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.42	0.186	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	6	9	13	0.08%	23.00%	ASGQAFELILSPR	R	S	95.00%	2.84	0.488	0	1	0	0	2	1,468.72	14	26	TRUE	
SNU216_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	6	9	13	0.08%	23.00%	ELEKRASGQAFELILSPR	K	S	95.00%	3.83	0.444	0	0	1	0	2	2,124.09	9	26	TRUE	
SNU216_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	6	9	13	0.08%	23.00%	ESVPEFPLSPPK	K	K	95.00%	2.57	0.487	0	1	0	0	2	1,406.66	29	40	TRUE	
SNU216_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	6	9	13	0.08%	23.00%	ESVPEFPLSPPKKK	K	D	95.00%	2.62	0.347	0	1	1	0	2	1,662.85	29	42	TRUE	
SNU216_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	6	9	13	0.08%	23.00%	RASGQAFELILSPR	K	S	95.00%	3.57	0.34	0	1	3	0	2	1,624.82	13	26	TRUE	
SNU216_PC5_01	Stathmin	IPI00479997	17,171.80	100.00%	6	9	13	0.08%	23.00%	SKESVPEFPLSPPK	R	K	95.00%	3.35	0.46	0	2	2	0	2	1,621.79	27	40	TRUE	
SNU216_PC5_01	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	81.90%	1.61	0.188	1	0	0	0	2	1,044.38	133	139	TRUE	
SNU216_PC5_01	hematological and neurological expressed 1 isofo	IPI00007764,IPI00384857	16,014.60	100.00%	1	1	1	0.01%	9.74%	RNSSEASSGDFLDLK	R	G	95.00%	3.69	0.329	0	1	0	0	2	1,705.74	85	99	TRUE	
SNU216_PC5_01	Isoform 1 of Sodium channel protein type 8 alpha	REVERSE_IPI00183041-R,RE	225,276.20	99.80%	1	1	1	0.01%	1.21%	GESEEVTSHEDDAFENESGPDRFR	R	G	95.00%	1.95	0.3	0	0	1	0	2	2,979.04	1385	1408	TRUE	
SNU216_PC5_01	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	1	1	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	1.93	0.312	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216_PC5_01	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	5	5	0.03%	8.20%	RKSLSDSESDDSK	K	S	95.00%	2.75	0.3	0	1	1	0	2	1,533.64	91	103	TRUE	
SNU216_PC5_01	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	5	5	0.03%	8.20%	SLSDSESDDSK	K	S	95.00%	1.84	0.495	1	1	0	0	2	1,249.45	93	103	TRUE	
SNU216_PC5_01	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	5	5	0.03%	8.20%	SLSDSESDDSKSK	K	K	95.00%	2.16	0.306	0	1	0	0	2	1,464.57	93	105	TRUE	
SNU216_PC5_01	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	1	2	2	0.01%	20.00%	PGPTPSGTNVGSSGRSPSK	-	A	95.00%	3.53	0.356	0	1	1	0	2	1,849.84	1	19	TRUE	
SNU216_PC5_01	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	1	1	0.01%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	3.98	0.305	0	0	0	1	2	3,901.66	12	44	TRUE	
SNU216_PC5_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	2	2	2	0.01%	6.30%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.13	0.281	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216_PC5_01	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	2	2	2	0.01%	6.30%	PSSSPVIFAGGQDR	K	Y	95.00%	2.94	0.461	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216_PC5_01	Similar to Protein phosphatase 1 regulatory subu	IPI00398922	20,965.20	100.00%	1	1	1	0.01%	12.60%	VYFQSPPGAAGEGPGGADDEGPVRR	R	Q	95.00%	3.11	0.214	0	0	1	0	2	2,566.14	80	104	TRUE	
SNU216_PC5_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.54	0.533	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216_PC5_01	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	3.19	0.464	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216_PC5_01	START domain containing 10	IPI00186008,IPI00746279	40,446.50	99.30%	2	2	2	0.01%	11.10%	MGGAGGEGSDDDTSLT	R	-	85.30%	1.98	0.28	0	1	0	0	2	1,549.54	343	358	TRUE	
SNU216_PC5_01	START domain containing 10	IPI00186008,IPI00746279	40,446.50	99.30%	2	2	2	0.01%	11.10%	SWLPMGADYIIMNYSVKHPKYPPR	R	K	95.00%	3.24	0.294	0	0	0	1	2	3,023.38	202	225	TRUE	
SNU216_PC5_01	Isoform 1 of Receptor expression-enhancing prot	IPI00164434	29,264.70	99.80%	2	2	2	0.01%	20.00%	DGDEKTDEEAEGPYSDNEMLTHK	K	G	95.00%	3.05	0.222	0	0	1	0	2	2,770.01	196	218	TRUE	
SNU216_PC5_01	Isoform 1 of Receptor expression-enhancing prot	IPI00164434	29,264.70	99.80%	2	2	2	0.01%	20.00%	SFSMHDLTTIQGDEPVGQRPYQPLPEAK	R	K	95.00%	4.63	0.311	0	0	1	0	2	3,221.50	150	177	TRUE	
SNU216_PC5_01	Osteoclast-stimulating factor 1	IPI00414836	23,787.70	100.00%	1	1	1	0.01%	7.01%	TLSNAEDYLDDEDSD	R	-	95.00%	1.95	0.335	0	1	0	0	2	1,781.63	200	214	TRUE	
SNU216_PC5_01	golgi SNAP receptor complex member 1 isoform	IPI00477701	28,294.70	100.00%	2	2	2	0.01%	8.06%	DGRRDSSDTTPLLNGSSQDR	R	M	86.20%	2.48	0.217	0	0	1	0	2	2,256.98	44	63	TRUE	
SNU216_PC5_01	golgi SNAP receptor complex member 1 isoform	IPI00477701	28,294.70	100.00%	2	2	2	0.01%	8.06%	RDSSDTTPLLNGSSQDR	R	M	90.20%	3.7	0.0883	0	1	0	0	2	1,928.83	47	63	TRUE	
SNU216_PC5_01	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	88,946.20	99.80%	1	1	1	0.01%	2.46%	TNTMNGSKSPVISR	R	P	95.00%	2.58	0.249	0	1	0	0	2	1,571.72	747	760	TRUE	
SNU216_PC5_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	99.80%	2	3	3	0.02%	2.67%	RASPSKPASAPASR	K	S	95.00%	2.71	0.299	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC5_01	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	99.80%	2	3	3	0.02%	2.67%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.33	0.439	0	1	1	0	2	1,670.83	1099	1115	TRUE	
SNU216_PC5_01	76 kDa protein	IPI00743778	75,757.70	99.90%	2	3	3	0.02%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.99	0.583	0	1	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC5_01	76 kDa protein	IPI00743778	75,757.70	99.90%	2	3	3	0.02%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	5.67	0.519	0	0	1	0	2	2,836.13	300	324	TRUE	
SNU216_PC5_01	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	2	2	2	0.01%	9.39%	KLENSPLGEALR	K	S	95.00%	2.79	0.264	0	1	0	0	2	1,406.70	104	115	TRUE	
SNU216_PC5_01	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	2	2	2	0.01%	9.39%	RSSPPGHYYQK	R	S	95.00%	2.63	0.195	0	1	0	0	2	1,399.62	121	131	TRUE	
SNU216_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	7	0.04%	18.10%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	R	F	95.00%	5.42	0.48	0	0	1	0	2	3,671.51	94	122	TRUE	
SNU216_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	7	0.04%	18.10%	DWEDDSDEDMSNFDR	K	F	95.00%	4.07	0.413	0	5	0	0	2	1,955.63	108	122	TRUE	
SNU216_PC5_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	7	0.04%	18.10%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	3.83	0.352	0	0	1	0	2	3,472.37	96	122	TRUE	
SNU216_PC5_01	CDNA FLJ40432 fis, clone TESTI2039227	IPI00185371	33,453.40	99.30%	1	1	1	0.01%	4.15%	SFSADNFIGIQR	R	S	95.00%	2.59	0.316	0	1	0	0	2	1,434.64	272	283	TRUE	
SNU216_PC5_01	Protein C9orf78	IPI00550191	33,688.60	99.80%	2	3	4	0.02%	6.23%	RGDSESEEDEQDSEEVR	R	L	95.00%	2.8	0.504	0	2	0	0	2	2,155.73	12	28	TRUE	
SNU216_PC5_01	Protein C9orf78	IPI00550191	33,688.60	99.80%	2	3	4	0.02%	6.23%	RRGDSESEEDEQDSEEVR	R	L	95.00%	3.61	0.498	0	1	1	0	2	2,311.83	11	28	TRUE	
SNU216_PC5_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	2	0.01%	8.25%	IGEGTYGVVYKGR	K	H	95.00%	2.6	0.306	0	1	0	0	2	1,478.70	10	22	TRUE	
SNU216_PC5_01	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	2	0.01%	8.25%	VYTHEVVTLWYR	R	S	95.00%	2.62	0.341	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216_PC5_01	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	2	5	0.03%	41.10%	KLEKEEEGISQESSEEEQ	K	-	95.00%	3.2	0.557	0	4	0	0	2	2,396.93	89	107	TRUE	
SNU216_PC5_01	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	2	5	0.03%	41.10%	KQPPVSPGTALVGSQKEPSEVPTPK	R	R	95.00%	3.75	0.393	0	0	1	0	2	2,638.35	31	55	TRUE	
SNU216_PC5_01	Isoform 1 of FRAS1-related extracellular matrix pr	IPI00180707,IPI00640805	295,844.60	99.80%	1	1	1	0.01%	0.19%	YSDYDK	K	T	95.00%	0.838	0.647	1	0	0	0	2	1,030.22	2411	2416	TRUE	
SNU216_PC5_01	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	98.80%	1	1	1	0.01%	0.74%	VQEKPDSPGGSTQIQR	R	Y	95.00%	2.29	0.299	0	1	0	0	2	1,806.84	1284	1299	TRUE	
SNU216_PC5_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	5.02%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.21	0.473	0	1	0	0	2	1,772.77	403	420	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	5.02%	KLQLERPVSPETQADLQR	R	N	95.00%	4.05	0.421	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC5_01	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	3	3	3	0.02%	5.02%	KPSVGVPPPASPSYPR	R	A	95.00%	2.72	0.39	0	1	0	0	2	1,715.85	969	984	TRUE	
SNU216_PC5_01	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	3.31	0.288	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216_PC5_01	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	95.00%	2.66	0.381	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216_PC5_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	3	3	0.02%	8.17%	ETPHSPGVEDAPIAK	R	V	95.00%	3.26	0.496	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC5_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	3	3	0.02%	8.17%	SEVQQPVHPKPLSPDSR	K	A	95.00%	2.83	0.304	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC5_01	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	3	3	3	0.02%	8.17%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	5.7	0.378	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216_PC5_01	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.80%	1	1	1	0.01%	0.06%	SSISLGWKPPAKDGGSPIK	K	G	95.00%	3.1	0.248	0	1	0	0	2	2,084.98	16554	16572	TRUE	
SNU216_PC5_01	Cyclin-C	IPI00031076,IPI00554688	35,559.70	99.80%	1	1	1	0.01%	6.93%	VEEFGVVSNTRLIAAATSVLK	K	T	95.00%	3.14	0.304	0	1	0	0	2	2,284.19	117	137	TRUE	
SNU216_PC5_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	3	0.02%	14.50%	GRLSPVPVPR	R	A	81.80%	1.79	0.252	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216_PC5_01	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	3	0.02%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	4.43	0.446	0	0	1	1	2	3,607.45	259	290	TRUE	
SNU216_PC5_01	Eukaryotic translation initiation factor 1A, Y-chron	IPI00023004,IPI00232533	16,330.10	100.00%	1	1	1	0.01%	21.00%	TNETDTFGPGDDDEIQFDDIGDDDEDIDDI	K	-	95.00%	3.65	0.254	0	0	1	0	2	3,518.27	114	143	TRUE	
SNU216_PC5_01	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	1	1	1	0.01%	6.19%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.22	0.409	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216_PC5_01	Hypothetical protein LEO1	IPI00103090	75,405.30	99.50%	2	2	2	0.01%	4.50%	IYSSDSDEGSEEDKAQR	R	L	89.00%	2.28	0.22	0	1	0	0	2	1,995.78	605	621	TRUE	
SNU216_PC5_01	Hypothetical protein LEO1	IPI00103090	75,405.30	99.50%	2	2	2	0.01%	4.50%	KLTSDEEGEPSGK	K	R	95.00%	2.45	0.319	0	1	0	0	2	1,456.62	627	639	TRUE	
SNU216_PC5_01	26 kDa protein	IPI00748891	26,044.60	99.10%	1	1	1	0.01%	11.40%	RVIHFVSGETMEEYSTDEDEVDGLEKK	R	D	82.50%	5.79	0.0307	0	0	1	0	2	3,302.39	79	105	TRUE	
SNU216_PC5_01	Isoform 1 of Pinin	IPI00418458	81,613.20	99.50%	1	1	1	0.01%	3.35%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	3.16	0.32	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216_PC5_01	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	3	6	0.03%	8.70%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	5.12	0.398	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216_PC5_01	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	3	6	0.03%	8.70%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	4.26	0.393	0	2	3	0	2	2,497.08	117	137	TRUE	
SNU216_PC5_01	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	4	0.02%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.61	0.38	0	0	4	0	2	2,565.01	131	153	TRUE	
SNU216_PC5_01	c-Myc-responsive protein Rcl	IPI00007926	19,108.30	99.80%	1	1	1	0.01%	10.30%	YFEADPPGQVAASPDPTT	R	-	95.00%	3.01	0.517	0	1	0	0	2	1,942.81	157	174	TRUE	
SNU216_PC5_01	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.81	0.367	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC5_01	Ubiquitin domain containing 1 variant	IPI00017227	25,939.20	100.00%	2	2	2	0.01%	7.49%	DVRLSASLPDTVGQLKR	K	Q	95.00%	3.02	0.305	0	0	1	0	2	1,935.01	160	176	TRUE	
SNU216_PC5_01	Ubiquitin domain containing 1 variant	IPI00017227	25,939.20	100.00%	2	2	2	0.01%	7.49%	LSASLPDTVGQLKR	R	Q	95.00%	2.18	0.294	0	1	0	0	2	1,564.81	163	176	TRUE	
SNU216_PC5_01	MGC2477 protein	IPI00012200	18,396.30	99.80%	1	1	1	0.01%	8.81%	APQDVEMKDLEDES	K	-	95.00%	3.15	0.43	0	1	0	0	2	1,685.66	146	159	TRUE	
SNU216_PC5_01	Isoform 1 of Sorting nexin-12	IPI00438170,IPI00438171,IP	19,819.10	99.80%	1	1	1	0.01%	8.14%	RYSDFEWLKNELER	R	D	95.00%	3.39	0.151	0	0	1	0	2	1,964.89	71	84	TRUE	
SNU216_PC5_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	7	0.04%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	5.03	0.575	0	2	0	0	2	2,239.84	56	73	TRUE	
SNU216_PC5_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	7	0.04%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.61	0.593	0	2	0	0	2	2,111.75	57	73	TRUE	
SNU216_PC5_01	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	7	0.04%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	3.92	0.486	0	2	1	0	2	2,347.81	57	74	TRUE	
SNU216_PC5_01	Ubiquitin-conjugating enzyme E2 E2	IPI00102173	22,255.70	100.00%	1	1	1	0.01%	8.46%	VDDSPSTSGGSSDGDQR	R	E	95.00%	3.18	0.462	0	1	0	0	2	1,746.65	8	24	TRUE	
SNU216_PC5_01	Plakophilin-3	IPI00026952	87,084.70	99.80%	1	1	1	0.01%	2.01%	AGGLDWPEATEVSPSR	R	T	95.00%	3.02	0.244	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC5_01	Syntaxin-4	IPI00029730	34,179.70	99.80%	1	2	2	0.01%	6.40%	AIEPQKEEADENYNSVNTR	K	M	95.00%	3.89	0.344	0	1	1	0	2	2,286.99	103	121	TRUE	
SNU216_PC5_01	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	3	0.02%	18.00%	ELDEEGSDPPLPGR	R	A	95.00%	2.77	0.359	0	1	0	0	2	1,590.67	169	182	TRUE	
SNU216_PC5_01	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	3	3	0.02%	18.00%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.7	0.407	0	1	1	0	2	2,372.11	44	64	TRUE	
SNU216_PC5_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.70%	2	2	2	0.01%	6.42%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	4.05	0.409	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC5_01	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.70%	2	2	2	0.01%	6.42%	VSSPLSPLSPGIKSPTIPR	K	A	94.90%	4.17	0.108	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC5_01	Chromobox protein homolog 1	IPI00010320	21,418.10	100.00%	1	2	2	0.01%	8.11%	ADSDSEDKGEESKPK	K	K	95.00%	2.88	0.332	0	1	1	0	2	1,701.69	87	101	TRUE	
SNU216_PC5_01	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	100.00%	1	1	6	0.03%	5.67%	ESLKEEDESDDDNM	K	-	95.00%	4.19	0.467	0	6	0	0	2	1,751.58	242	255	TRUE	
SNU216_PC5_01	Cysteine and glycine-rich protein 1	IPI00442073	20,435.90	99.80%	1	1	1	0.01%	7.81%	GFGFGQGAGALVHSE	K	-	95.00%	2.54	0.429	0	1	0	0	2	1,513.65	178	192	TRUE	
SNU216_PC5_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.18	0.374	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC5_01	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.55	0.195	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216_PC5_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	6.91%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.83	0.302	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC5_01	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	6.91%	SSPQLDPLR	R	K	95.00%	1.77	0.319	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC5_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	2.69%	KLGAGEGGEASVSPEK	K	T	95.00%	3.04	0.207	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC5_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	2.69%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.08	0.219	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC5_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	2.69%	LGAGEGGEASVSPEK	K	T	95.00%	3.08	0.396	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC5_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	2.69%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.48	0.299	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC5_01	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	5	5	0.03%	2.69%	TSQVGAASAPAKESPR	K	K	95.00%	3.31	0.439	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216_PC5_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.00%	2	2	2	0.01%	5.14%	GDSLKEPTSIAESSR	R	H	79.50%	1.91	0.234	0	1	0	0	2	1,656.75	325	339	TRUE	
SNU216_PC5_01	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	99.00%	2	2	2	0.01%	5.14%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.04	0.39	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC5_01	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	3	0.02%	15.30%	RIDFTPVSPAPSPTR	K	G	95.00%	2.85	0.38	0	2	0	0	2	1,800.81	108	122	TRUE	
SNU216_PC5_01	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	3	0.02%	15.30%	SSSAPLIHGLSDLSQVFQPYTLR	R	T	95.00%	3.57	0.328	0	0	1	0	2	2,596.28	23	45	TRUE	
SNU216_PC6_01	Elongation factor 1-delta	IPI00023048,IPI00642971	71,408.30	100.00%	1	1	1	0.01%	11.40%	KPATPAEDDEDDDDILFGSDNEEEDKEAAQ	K	E	95.00%	6.1	0.517	0	0	1	0	2	3,657.52	510	541	TRUE	
SNU216_PC6_01	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	1	1	1	0.01%	7.09%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	K	E	92.60%	3.62	0.0965	0	0	1	0	2	2,919.35	51	81	TRUE	
SNU216_PC6_01	Guanine nucleotide-binding protein G(I)/G(S)/G(O	IPI00221232	7,875.40	100.00%	1	1	1	0.01%	15.50%	TASTNNIAQAR	K	R	95.00%	1.99	0.313	0	1	0	0	2	1,226.55	4	14	TRUE	
SNU216_PC6_01	Prostaglandin E synthase 3	IPI00015029	18,697.90	99.80%	1	1	2	0.02%	9.38%	DWEDDSDEDMSNFDR	K	F	95.00%	1.57	0.462	0	2	0	0	2	1,955.63	108	122	TRUE	
SNU216_PC6_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	2	0.02%	31.30%	KEESEESDDDMGFGLFD	K	-	95.00%	3.38	0.408	0	1	0	0	2	2,029.73	99	115	TRUE	
SNU216_PC6_01	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	2	0.02%	31.30%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.11	0.405	0	1	0	0	2	1,948.94	3	21	TRUE	
SNU216_PC6_01	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	3	3	3	0.03%	15.50%	DLLHPSPEEEK	K	R	95.00%	2.08	0.317	0	1	0	0	2	1,373.60	13	23	TRUE	
SNU216_PC6_01	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	3	3	3	0.03%	15.50%	DLLHPSPEEEKR	K	K	95.00%	2.14	0.248	0	0	1	0	2	1,529.70	13	24	TRUE	
SNU216_PC6_01	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	3	3	3	0.03%	15.50%	DLLHPSPEEEKRK	K	H	95.00%	2.59	0.164	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216_PC6_01	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	1.83	0.39	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC6_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.05%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.33	0.521	0	0	1	0	2	2,951.45	55	80	TRUE	
SNU216_PC6_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.05%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	K	V	95.00%	3.84	0.387	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC6_01	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.05%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	5.13	0.584	0	0	2	1	2	3,735.89	46	80	TRUE	
SNU216_PC6_01	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	99.80%	1	1	1	0.01%	2.21%	IEDVGSDEEDDSGKDK	K	K	95.00%	2.19	0.338	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC6_01	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	3.67	0.482	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216_PC6_01	40S ribosomal protein S29	IPI00182289,IPI00738810	6,737.90	100.00%	1	1	1	0.01%	20.00%	GHQQLYWSHPR	M	K	95.00%	1.81	0.233	0	0	1	0	2	1,488.65	2	12	TRUE	
SNU216_PC6_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	3	3	0.03%	8.44%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	1.85	0.378	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC6_01	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	3	3	0.03%	8.44%	SSSSGDR	R	K	95.00%	0.31	1	0	1	0	0	2	935.1944	292	298	TRUE	
SNU216_PC6_01	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	3	3	0.03%	31.60%	PGPTPSGTNVGSSGRSPSK	-	A	95.00%	2.67	0.241	0	1	1	0	2	1,849.84	1	19	TRUE	
SNU216_PC6_01	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	3	3	0.03%	31.60%	TTSAGTGGMWR	R	F	95.00%	1.86	0.471	0	1	0	0	2	1,204.48	46	56	TRUE	
SNU216_PC6_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	3	3	0.03%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	1.94	0.329	0	0	1	0	2	2,671.09	14	37	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC6_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	3	3	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	2.93	0.382	0	1	0	0	2	2,514.99	15	37	TRUE	
SNU216_PC6_01	Small acidic protein	IPI00003419	20,332.70	100.00%	3	3	3	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	2.18	0.261	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC6_01	Stathmin	IPI00479997	17,171.80	100.00%	2	2	2	0.02%	18.90%	RASGQAFELILSPR	K	S	95.00%	2.4	0.26	0	0	1	0	2	1,624.82	13	26	TRUE	
SNU216_PC6_01	Stathmin	IPI00479997	17,171.80	100.00%	2	2	2	0.02%	18.90%	SKESVPEFPLSPPK	R	K	95.00%	1.92	0.324	0	1	0	0	2	1,621.79	27	40	TRUE	
SNU216_PC6_01	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.80%	1	1	1	0.01%	1.09%	GSYGSDAEEEEYR	R	Q	95.00%	1.65	0.509	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC6_01	23 kDa protein	IPI00002821,IPI00069693,IP	23,401.10	100.00%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	95.00%	1.47	0.251	0	1	0	0	2	978.5385	133	141	TRUE	
SNU216_PC6_01	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	99.80%	1	1	1	0.01%	5.82%	SSGSPYGGGYGSGGGSGGYGSR	R	R	95.00%	1.77	0.424	0	1	0	0	2	1,990.76	355	376	TRUE	
SNU216_PC6_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.03%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	3.74	0.552	0	0	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC6_01	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.03%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	2.47	0.414	0	1	1	0	2	2,389.89	235	254	TRUE	
SNU216_PC6_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	2	2	0.02%	11.90%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	1.83	0.354	0	1	0	0	2	2,375.94	172	191	TRUE	
SNU216_PC6_01	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	2	2	0.02%	11.90%	LLKEGEEPTVYSDEEEPKDESAR	K	K	90.50%	2.15	0.217	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216_PC6_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.90%	2	3	3	0.03%	8.23%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	2.84	0.53	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216_PC6_01	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.90%	2	3	3	0.03%	8.23%	VVDYSQFQESDDADEDYGR	K	D	95.00%	2.37	0.509	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216_PC6_01	Hornerin	IPI00398625	282,372.70	100.00%	1	1	1	0.01%	0.35%	HGSRSGQSSR	K	S	95.00%	0.919	0.41	1	0	0	0	2	1,138.47	729	738	TRUE	
SNU216_PC6_01	BET1-like protein	IPI00009772,IPI00396263	11,137.60	99.80%	2	2	2	0.02%	15.30%	AQSPGAVEEILDR	R	E	95.00%	2.71	0.489	0	1	0	0	2	1,464.67	7	19	TRUE	
SNU216_PC6_01	BET1-like protein	IPI00009772,IPI00396263	11,137.60	99.80%	2	2	2	0.02%	15.30%	AQSPGAVEEILDRENKR	R	M	92.00%	2	0.197	0	0	1	0	2	1,991.95	7	23	TRUE	
SNU216_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	5	0.05%	2.03%	ASLGSLEGEAEAEASSPK	K	G	95.00%	2.74	0.463	0	1	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	5	0.05%	2.03%	GGVTGSPEASISGSK	K	G	95.00%	1.85	0.269	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	5	0.05%	2.03%	GHYEVTGSDDETGK	K	L	89.30%	1.57	0.242	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	5	0.05%	2.03%	SKGHYEVTGSDDETGK	K	L	95.00%	2.14	0.192	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC6_01	313 kDa protein	IPI00555610	312,537.10	100.00%	5	5	5	0.05%	2.03%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.78	0.383	0	0	0	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC6_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.46	0.566	0	1	0	0	2	1,964.90	230	247	TRUE	
SNU216_PC6_01	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	2.42	0.422	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC6_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.02%	1.97%	NRSAEEGELAESK	R	S	95.00%	2.1	0.185	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC6_01	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.02%	1.97%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	3.7	0.451	0	1	0	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC6_01	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	99.80%	1	1	1	0.01%	5.67%	ESLKEEDESDDDNM	K	-	95.00%	1.52	0.306	0	1	0	0	2	1,735.59	242	255	TRUE	
SNU216_PC6_01	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	1	1	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	2.93	0.507	0	1	0	0	2	1,622.85	54	68	TRUE	
SNU216_PC6_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	4.72	0.185	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216_PC6_01	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.03%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	2.37	0.428	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216_PC6_01	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	1	1	1	0.01%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	2.03	0.269	0	1	0	0	2	1,488.66	416	429	TRUE	
SNU216_PC6_01	Septin-2	IPI00014177	41,488.20	99.80%	1	1	1	0.01%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	2.43	0.28	0	0	1	0	2	2,517.05	210	229	TRUE	
SNU216_PC6_01	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	2	2	0.02%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	2.75	0.343	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	7.42%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	5.11	0.423	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	7.42%	RLLGPAPEDDGGHNDHSQPQASQDQDSH	R	-	95.00%	4.9	0.455	0	0	0	1	2	3,713.62	1234	1267	TRUE	
SNU216_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	7.42%	VKPPGGHSPQVNHLK	K	R	95.00%	2.47	0.294	0	0	1	0	2	1,674.85	1082	1096	TRUE	
SNU216_PC1_02	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	7.42%	VLHSSNPVPLYAPNLSPPADSR	K	I	95.00%	5.03	0.541	0	0	1	0	2	2,411.18	558	579	TRUE	
SNU216_PC1_02	Protein CASC3	IPI00289491	76,277.90	99.80%	2	3	3	0.02%	3.13%	QSGDGQESTEPVENK	R	V	95.00%	3.19	0.559	0	1	0	0	2	1,684.67	147	161	TRUE	
SNU216_PC1_02	Protein CASC3	IPI00289491	76,277.90	99.80%	2	3	3	0.02%	3.13%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	4.32	0.406	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216_PC1_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	AFVEDSEDEDGAGEGGSSLLQK	K	R	95.00%	4.34	0.589	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216_PC1_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	YVDEENSDGETSNHR	K	L	95.00%	3.35	0.464	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216_PC1_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	3	4	5	0.03%	6.12%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	4.97	0.465	0	0	1	0	2	4,118.93	479	519	TRUE	
SNU216_PC1_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	3	4	5	0.03%	6.12%	PMEEDGEEKSPSK	K	K	95.00%	2.51	0.459	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216_PC1_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	3	4	5	0.03%	6.12%	RPMEEDGEEKSPSK	K	K	95.00%	3.63	0.452	0	1	2	0	2	1,698.70	372	385	TRUE	
SNU216_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	6	8	8	0.05%	5.89%	DKVEENSVRSPR	R	K	95.00%	2.79	0.287	0	1	0	0	2	1,495.69	116	127	TRUE	
SNU216_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	6	8	8	0.05%	5.89%	HSDNEAESIADALSSTSNILASEFFEEEKQESI	R	S	95.00%	6.08	0.179	0	0	1	1	2	3,819.68	1147	1180	TRUE	
SNU216_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	6	8	8	0.05%	5.89%	KHSDNEAESIADALSSTSNILASEFFEEEKQES	R	S	95.00%	5.58	0.46	0	0	1	1	2	3,947.77	1146	1180	TRUE	
SNU216_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	6	8	8	0.05%	5.89%	MAPPVDDLSPK	R	K	95.00%	2.27	0.327	0	1	0	0	2	1,249.55	1125	1135	TRUE	
SNU216_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	6	8	8	0.05%	5.89%	STFSPAPRPEMPGTVEVESTFLAR	K	L	95.00%	3.13	0.323	0	0	1	0	2	2,686.26	1181	1204	TRUE	
SNU216_PC1_02	PHD finger protein 3	IPI00170770	229,481.10	100.00%	6	8	8	0.05%	5.89%	VAQNSPSVENIQTSQAEQAKPLQEDILMQI	K	R	95.00%	5.25	0.539	0	0	0	1	2	4,370.11	1718	1755	TRUE	
SNU216_PC1_02	Breakpoint cluster region protein	IPI00004497	142,809.60	99.20%	2	2	2	0.01%	4.33%	ASASRPQPAPADGADPPPAEEPEARPDGEC	R	A	95.00%	6.15	0.408	0	0	1	0	2	3,388.51	92	125	TRUE	
SNU216_PC1_02	Breakpoint cluster region protein	IPI00004497	142,809.60	99.20%	2	2	2	0.01%	4.33%	HQDGLPYIDDSPSSSPHLSSK	R	G	84.30%	4.53	0.0587	0	0	1	0	2	2,347.02	449	469	TRUE	
SNU216_PC1_02	Jumonji/ARID domain-containing protein 1A	IPI00021363,IPI00619935	196,357.70	100.00%	4	4	4	0.02%	2.67%	DLDLEPLSDLEEGLEETR	K	D	95.00%	4.09	0.491	0	1	0	0	2	2,152.95	1145	1162	TRUE	
SNU216_PC1_02	Jumonji/ARID domain-containing protein 1A	IPI00021363,IPI00619935	196,357.70	100.00%	4	4	4	0.02%	2.67%	EKDLDLEPLSDLEEGLEETR	K	D	95.00%	3.23	0.465	0	0	1	0	2	2,410.09	1143	1162	TRUE	
SNU216_PC1_02	Jumonji/ARID domain-containing protein 1A	IPI00021363,IPI00619935	196,357.70	100.00%	4	4	4	0.02%	2.67%	FLHIMEDDSMEEKPLK	R	V	83.70%	2.43	0.158	0	0	1	0	2	2,041.90	1521	1536	TRUE	
SNU216_PC1_02	Jumonji/ARID domain-containing protein 1A	IPI00021363,IPI00619935	196,357.70	100.00%	4	4	4	0.02%	2.67%	VVSSVSSSPR	R	Q	95.00%	2.07	0.387	0	1	0	0	2	1,084.50	1365	1374	TRUE	
SNU216_PC1_02	Protein kinase C iota type	IPI00016639	67,259.10	99.80%	2	3	3	0.02%	9.03%	ASSSLGLQDFDLLR	K	V	95.00%	3.05	0.424	0	1	0	0	2	1,601.76	236	249	TRUE	
SNU216_PC1_02	Protein kinase C iota type	IPI00016639	67,259.10	99.80%	2	3	3	0.02%	9.03%	QVVPPFKPNISGEFGLDNFDSQFTNEPVQL	K	K	95.00%	5.06	0.254	0	0	1	1	2	4,470.08	525	563	TRUE	
SNU216_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	4.56%	AAHVPENSDTEQDVLTVKPVR	R	K	95.00%	4.18	0.493	0	0	1	0	2	2,385.14	1363	1383	TRUE	
SNU216_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	4.56%	AAHVPENSDTEQDVLTVKPVRK	R	V	95.00%	3.64	0.349	0	0	0	1	2	2,513.24	1363	1384	TRUE	
SNU216_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	4.56%	LSFASETPLEKEPHSPADQPEQQAESTLTSAI	R	G	95.00%	5.12	0.436	0	0	1	1	2	3,791.73	1314	1347	TRUE	
SNU216_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	4.56%	RHSAQLSSDHIIPLMHLAK	R	D	95.00%	3.17	0.218	0	0	0	1	2	2,234.13	935	953	TRUE	
SNU216_PC1_02	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	4.56%	SLSESSVIMDR	R	A	95.00%	2.23	0.187	0	1	0	0	2	1,303.56	859	869	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	AAKLSEGSQPAEEEEDQETPSR	R	N	95.00%	3.94	0.625	0	2	1	0	2	2,468.05	236	257	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	AESPAEKVPEESVLPLVQK	K	S	95.00%	4.8	0.519	0	1	1	0	2	2,130.07	488	506	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	ASLVALPEQTASEEETPPPLLTK	K	E	95.00%	3.33	0.346	0	1	1	0	2	2,501.24	399	421	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	EASSPPPHPQLHSEEEIEPMEGPAPPVLIQLS	K	E	95.00%	4.69	0.351	0	0	0	1	2	4,490.09	422	462	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	GVPAGNSDTEGGQPGR	K	K	95.00%	3.06	0.529	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	GVPAGNSDTEGGQPGRK	K	R	95.00%	2.3	0.271	0	1	0	0	2	1,706.75	832	848	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	ISEDETERNGDDGTHDK	R	G	95.00%	2.06	0.29	0	1	0	0	2	1,997.77	897	913	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	LSEGSQPAEEEEDQETPSR	K	N	95.00%	3.27	0.536	0	2	0	0	2	2,277.84	239	257	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.89	0.401	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	SLSPGVSR	K	D	90.70%	1.32	0.335	0	1	0	0	2	962.3744	655	662	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	SSSISEEKGDSDDEKPR	K	K	95.00%	3.25	0.304	0	1	0	0	2	1,945.80	206	222	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	TAQVPSPPR	R	G	95.00%	2.42	0.472	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC1_02	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	13	17	20	0.12%	15.40%	TTSPLEEEER	K	E	90.50%	1.86	0.212	0	1	0	0	2	1,270.52	363	372	TRUE	
SNU216_PC1_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	3	4	4	0.02%	8.80%	RASDDGKLTDPSK	R	T	95.00%	2.58	0.221	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216_PC1_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	3	4	4	0.02%	8.80%	SRWSGSQQVEQPTGSVLWMAPEVIR	K	M	95.00%	4.34	0.47	0	0	1	0	2	2,908.38	494	518	TRUE	
SNU216_PC1_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	3	4	4	0.02%	8.80%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.53	0.449	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	99.50%	2	2	2	0.01%	2.19%	PRPATSTPDLASHR	R	H	95.00%	3.59	0.442	0	0	1	0	2	1,585.75	573	586	TRUE	
SNU216_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	99.50%	2	2	2	0.01%	2.19%	YVSGSSPDLVTR	K	K	90.60%	1.97	0.242	0	1	0	0	2	1,440.58	589	600	TRUE	
SNU216_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	AMVDSQQKSPVKR	R	R	95.00%	2.53	0.23	0	0	1	0	2	1,569.75	1374	1386	TRUE	
SNU216_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	ASDSK	E	G	87.70%	1.28	0.136	1	0	0	0	1	667.1736	3046	3050	TRUE	
SNU216_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	LLDPEDVDVSSPDEK	R	S	95.00%	2.99	0.254	0	1	0	0	2	1,737.75	227	241	TRUE	
SNU216_PC1_02	dystonin isoform 1	IPI00074148	629,787.60	100.00%	4	4	4	0.02%	0.82%	QKSFSEDVISHK	R	G	95.00%	2.16	0.273	0	0	1	0	2	1,484.68	1880	1891	TRUE	
SNU216_PC1_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	4.5	0.5	0	0	2	0	2	3,291.30	348	375	TRUE	
SNU216_PC1_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	MLAESDESGDEESVSQTDK	K	T	95.00%	2.42	0.344	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216_PC1_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	4	0.02%	6.82%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.72	0.172	0	0	1	0	2	3,172.29	186	212	TRUE	
SNU216_PC1_02	Epiplakin	IPI00010951	553,088.70	99.80%	1	1	1	0.01%	0.38%	QVSASELHTSGILGPETLR	R	D	95.00%	3.15	0.522	0	1	0	0	2	2,075.02	2689	2707	TRUE	
SNU216_PC1_02	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	99.80%	2	2	2	0.01%	2.09%	TASEGDGGAAAGAAAAGAR	R	P	95.00%	3.91	0.573	0	1	0	0	2	1,611.68	365	383	TRUE	
SNU216_PC1_02	Insulin receptor substrate 2 insertion mutant (Fra	IPI00464978	137,434.40	99.80%	2	2	2	0.01%	2.09%	TYSLTTPAR	R	Q	95.00%	2.22	0.316	0	1	0	0	2	1,089.50	577	585	TRUE	
SNU216_PC1_02	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDDVDGDVNVEK	R	N	95.00%	4.95	0.493	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216_PC1_02	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.60%	NPYLLSEEEDDDVDGDVNVEKNETEPPK	R	G	95.00%	6.66	0.415	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	APESDTGDEDQDQER	R	D	95.00%	3.43	0.521	0	3	0	0	2	1,771.63	575	589	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	DEDGESGGQRSEAEEGEVR	R	T	88.40%	2	0.208	0	1	0	0	2	2,195.78	456	474	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	DKSDSDTEGLLFSR	R	D	95.00%	2.78	0.31	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.42	0.352	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	PASVSENHDAGPDGDKR	R	D	95.00%	2.4	0.481	0	1	0	0	2	1,831.76	439	455	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	PASVSENHDAGPDGDKRDEDGESGGQR	R	S	95.00%	2.45	0.423	0	0	1	0	2	2,862.16	439	465	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	RLPSSPASPSPKGTPEK	R	A	95.00%	3.31	0.255	0	1	1	0	2	1,895.87	537	553	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	SDSDTEGLLFSR	K	D	95.00%	2.4	0.307	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	SEAEEGEVRTPTK	R	I	81.80%	2.13	0.155	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	SLDGAEFSR	R	P	95.00%	1.98	0.38	0	1	0	0	2	1,061.43	430	438	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.11	0.308	0	0	1	1	2	2,794.21	430	455	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.63	0.472	0	0	2	0	2	2,460.13	639	659	TRUE	
SNU216_PC1_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.11%	17.30%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	R	T	90.90%	6.55	0.0019	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	EHSPDSDAYNSGDDKNEK	R	H	95.00%	3.26	0.521	0	2	1	0	2	2,087.78	843	860	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	EVSPEVVR	K	S	95.00%	1.76	0.349	1	1	0	0	2	994.4605	196	203	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	GDSDISDEEAAQQSK	K	K	95.00%	3.17	0.4	0	1	0	0	2	1,659.64	1012	1026	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	GNIETTSEDGQVFSPK	R	K	95.00%	3.98	0.387	0	2	0	0	2	1,788.77	980	995	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	GPRTPSPPPPIPEDIALGK	K	K	95.00%	4.29	0.37	0	1	1	0	2	2,099.00	260	278	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	HHSSSSQSGSSIQRHSPSPR	R	R	81.70%	2.37	0.169	0	0	1	0	2	2,305.95	331	350	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	KEDTAFSDWSDEDVPDR	K	T	95.00%	3.52	0.425	0	1	0	0	2	2,091.82	1059	1075	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	KGPRTPSPPPPIPEDIALGK	K	K	95.00%	4.1	0.344	0	0	1	0	2	2,227.09	259	278	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	KTSAVSSPLLDQQR	R	N	92.10%	3.37	0.0412	0	1	0	0	2	1,689.76	236	249	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	REHSPDSDAYNSGDDKNEK	R	H	95.00%	2.51	0.244	0	0	2	0	2	2,323.85	842	860	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	SASPYPSHSLSSPQR	R	K	95.00%	2.62	0.372	0	1	0	0	2	1,680.74	370	384	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	SKGDSDISDEEAAQQSK	K	K	95.00%	4.19	0.47	0	3	0	0	2	1,874.77	1010	1026	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	SKLSPSPSLRK	R	S	86.90%	2.05	0.186	0	0	1	0	2	1,279.68	204	214	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	SLSPSHLTEDR	R	Q	95.00%	2.15	0.279	0	1	1	0	2	1,321.58	875	885	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	TPSPPPPIPEDIALGK	R	K	95.00%	2.75	0.271	0	1	0	0	2	1,788.82	263	278	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	TPSPPPPIPEDIALGKK	R	Y	95.00%	3.5	0.36	0	1	1	0	2	1,916.92	263	279	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	17	22	27	0.17%	11.00%	YRNEGSPSPRQSPK	R	R	93.60%	1.86	0.289	0	1	0	0	2	1,842.70	826	839	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	ATTPASTANSDVATIPTDTPLKEENEGFVK	K	V	83.20%	5.37	0.0225	0	0	1	0	2	3,184.49	260	289	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	4.36	0.488	0	0	2	0	2	2,585.34	199	222	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	LHQLSGSDQLESTAHSR	K	I	95.00%	5	0.469	0	2	2	0	2	1,945.88	179	195	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	NVSTGSAENEEK	R	S	95.00%	1.98	0.405	0	1	0	0	2	1,344.53	313	324	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	NVSTGSAENEEKSEVQAIIESTPELDMDKDL	R	G	81.80%	5.66	0.0157	0	0	0	1	2	3,893.75	313	347	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	SASQSSLDKLDQELK	R	E	95.00%	2.96	0.213	0	0	1	0	2	1,728.81	714	728	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	SASQSSLDKLDQELKEQQK	R	E	95.00%	3.97	0.342	0	0	1	0	2	2,242.06	714	732	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	SEVQAIIESTPELDMDKDLSGYK	K	G	95.00%	4.07	0.255	0	0	1	0	2	2,648.21	325	347	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	SHTSLKDELSDVSQGGSK	R	A	95.00%	3.42	0.342	0	0	1	0	2	1,954.88	242	259	TRUE	
SNU216_PC1_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	15.60%	TKLHQLSGSDQLESTAHSR	R	I	95.00%	4.42	0.49	0	0	1	1	2	2,175.02	177	195	TRUE	
SNU216_PC1_02	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	3.06	0.385	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216_PC1_02	HSPC121	IPI00008998	44,424.70	100.00%	2	3	6	0.04%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.4	0.401	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216_PC1_02	HSPC121	IPI00008998	44,424.70	100.00%	2	3	6	0.04%	6.17%	WLDESDAEMELR	R	A	95.00%	2.75	0.335	1	4	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC1_02	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	99.80%	2	2	2	0.01%	2.82%	KETSFGSSENITMTSLSK	K	V	95.00%	3.45	0.106	0	1	0	0	2	2,026.90	929	946	TRUE	
SNU216_PC1_02	Isoform 1 of AP1 gamma subunit-binding protein	IPI00297931,IPI00375252,IP	139,226.20	99.80%	2	2	2	0.01%	2.82%	SGSLDDSFSDFQELPASSK	K	T	95.00%	2.81	0.367	0	1	0	0	2	2,096.87	467	485	TRUE	
SNU216_PC1_02	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	ADAPDAGAQSDSELPSYHQNDVSLDR	R	G	95.00%	4.36	0.59	0	1	1	0	2	2,838.19	1289	1314	TRUE	
SNU216_PC1_02	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	GGQSDDDEDEGVPASYHTVSLQVSQDLLD	R	A	95.00%	6.28	0.227	0	0	0	1	2	4,145.84	1472	1508	TRUE	
SNU216_PC1_02	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	GYTSDSEVYTDHGR	R	P	95.00%	2.6	0.433	0	1	0	0	2	1,666.64	1315	1328	TRUE	
SNU216_PC1_02	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	4	5	5	0.03%	4.30%	GYTSDSEVYTDHGRPGK	R	I	95.00%	3.6	0.493	0	0	1	0	2	1,948.81	1315	1331	TRUE	
SNU216_PC1_02	hypothetical protein LOC55215	IPI00019447,IPI00477345	142,574.60	99.80%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	2.26	0.412	0	1	0	0	2	1,170.54	403	412	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	5.51%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.42	0.384	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	2	2	2	0.01%	5.51%	TQTPPLGQTPQLGLK	R	T	95.00%	2.7	0.309	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC1_02	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	99.80%	2	2	2	0.01%	3.19%	NSPAFLSTDLGDEDVGLGPPAPR	R	T	95.00%	4.44	0.467	0	1	0	0	2	2,405.10	503	525	TRUE	
SNU216_PC1_02	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	99.80%	2	2	2	0.01%	3.19%	TIVAVGSMEEAVILPFR	R	I	95.00%	2.84	0.532	0	1	0	0	2	1,911.97	779	795	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Nuclear receptor coactivator 5	IPI00288941	65,537.70	99.50%	2	2	2	0.01%	3.80%	DRSPIRGSPR	R	R	89.40%	1.8	0.22	0	1	0	0	2	1,300.56	27	36	TRUE	
SNU216_PC1_02	Nuclear receptor coactivator 5	IPI00288941	65,537.70	99.50%	2	2	2	0.01%	3.80%	SSTDSLPGPISR	R	Q	95.00%	2.26	0.291	0	1	0	0	2	1,296.58	377	388	TRUE	
SNU216_PC1_02	Kinesin family member 1B	IPI00029011,IPI00216252,IP	204,480.50	100.00%	2	3	3	0.02%	1.26%	GDSLILEHQWELEK	R	L	93.00%	2.71	0.157	0	1	0	0	2	1,776.82	1485	1498	TRUE	
SNU216_PC1_02	Kinesin family member 1B	IPI00029011,IPI00216252,IP	204,480.50	100.00%	2	3	3	0.02%	1.26%	GDSLILEHQWELEKLELLHEVEK	R	T	95.00%	4.46	0.476	0	0	1	1	2	2,867.42	1485	1507	TRUE	
SNU216_PC1_02	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	100.00%	1	1	1	0.01%	0.97%	SGSGISVISSTSVDQR	R	L	95.00%	2.34	0.282	0	1	0	0	2	1,659.76	313	328	TRUE	
SNU216_PC1_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	8	0.05%	8.20%	AAESPDQKDTEGGPK	K	E	95.00%	2.42	0.289	0	1	0	0	2	1,609.67	480	494	TRUE	
SNU216_PC1_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	8	0.05%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	5.4	0.487	0	3	0	0	2	2,279.96	480	500	TRUE	
SNU216_PC1_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	8	0.05%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.6	0.475	0	1	1	0	2	1,925.87	463	479	TRUE	
SNU216_PC1_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	4	6	8	0.05%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4.53	0.448	0	1	1	0	2	2,270.04	460	479	TRUE	
SNU216_PC1_02	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	98.70%	1	1	1	0.01%	1.56%	VQAYEEPSVASSPNGK	R	E	95.00%	3.72	0.506	0	1	0	0	2	1,742.76	719	734	TRUE	
SNU216_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	7	8	0.05%	6.03%	HDSSAPDPAPDSADEVMPEAVPEVASEPGI	K	T	95.00%	5.89	0.403	0	0	0	1	2	4,188.80	887	926	TRUE	
SNU216_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	7	8	0.05%	6.03%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.12	0.377	0	0	2	0	2	2,816.12	796	819	TRUE	
SNU216_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	7	8	0.05%	6.03%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	6.55	0.623	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	7	8	0.05%	6.03%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.34	0.105	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	7	8	0.05%	6.03%	SPPEGDTTLFLSR	R	L	95.00%	2.46	0.231	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	7	8	0.05%	6.03%	SSSPAGETEGDREPQAR	R	P	87.20%	1.92	0.217	0	1	0	0	2	1,853.77	1712	1728	TRUE	
SNU216_PC1_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	7	7	8	0.05%	6.03%	TASPLEHILQTLFGK	K	K	95.00%	3.46	0.38	0	1	0	0	2	1,734.88	1310	1324	TRUE	
SNU216_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	7	8	0.05%	40.80%	GHTASESDEQQWPEEK	R	R	95.00%	2.25	0.271	0	2	0	0	2	1,937.76	23	38	TRUE	
SNU216_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	7	8	0.05%	40.80%	KKSGPPAPEEEEEEER	K	Q	95.00%	3.94	0.331	0	0	1	0	2	1,920.82	87	102	TRUE	
SNU216_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	7	8	0.05%	40.80%	LKEDILENEDQNSPPK	R	K	95.00%	4.95	0.361	0	1	1	0	2	2,077.93	40	56	TRUE	
SNU216_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	7	8	0.05%	40.80%	LKEDILENEDQNSPPKK	R	G	95.00%	4.69	0.238	0	1	0	0	2	2,206.03	40	57	TRUE	
SNU216_PC1_02	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	5	7	8	0.05%	40.80%	RGHTASESDEQQWPEEK	K	R	95.00%	3.73	0.336	0	1	1	0	2	2,093.86	22	38	TRUE	
SNU216_PC1_02	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	3	4	4	0.02%	0.61%	ALSPVIPLIPR	R	D	95.00%	2.08	0.419	0	1	0	0	2	1,255.72	4461	4471	TRUE	
SNU216_PC1_02	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	3	4	4	0.02%	0.61%	LEGPVSPDVEPGKEETEESK	K	K	95.00%	3.83	0.492	0	1	1	0	2	2,235.99	1391	1410	TRUE	
SNU216_PC1_02	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	3	4	4	0.02%	0.61%	LEGPVSPDVEPGKEETEESKK	K	R	95.00%	3	0.356	0	0	1	0	2	2,364.09	1391	1411	TRUE	
SNU216_PC1_02	septin 9	IPI00748715	63,634.10	99.50%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	89.80%	2.05	0.181	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216_PC1_02	septin 9	IPI00748715	63,634.10	99.50%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.6	0.549	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC1_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	7	0.04%	2.91%	ENPPVEDSSDEDDKR	R	N	95.00%	2.46	0.335	0	2	1	0	2	1,891.66	491	505	TRUE	
SNU216_PC1_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	7	0.04%	2.91%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.99	0.315	0	1	2	0	2	2,824.10	491	513	TRUE	
SNU216_PC1_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	7	0.04%	2.91%	RENPPVEDSSDEDDKR	K	N	95.00%	3.65	0.403	0	1	0	0	2	2,047.76	490	505	TRUE	
SNU216_PC1_02	Gem-associated protein 5	IPI00291783	168,562.60	99.80%	1	1	2	0.01%	1.33%	ENSGPVENGVSDQEGEEQAR	K	E	95.00%	3.03	0.373	0	2	0	0	2	2,210.88	768	787	TRUE	
SNU216_PC1_02	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	2	2	2	0.01%	15.10%	GRESDEDTEDASETDLAKHDEEDYVEMK	R	E	95.00%	3.4	0.341	0	0	1	0	2	3,483.24	42	69	TRUE	
SNU216_PC1_02	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	2	2	2	0.01%	15.10%	RPASPSSPEHLPATPAESPAQR	K	F	95.00%	4.42	0.205	0	0	1	0	2	2,443.08	235	256	TRUE	
SNU216_PC1_02	Band 4.1-like protein 2	IPI00015973	112,587.80	99.70%	2	2	2	0.01%	3.38%	EVAENQQNQSSDPEEEK	K	G	93.30%	2.04	0.223	0	1	0	0	2	2,040.80	29	45	TRUE	
SNU216_PC1_02	Band 4.1-like protein 2	IPI00015973	112,587.80	99.70%	2	2	2	0.01%	3.38%	EVRSPTKAPHLQLEGK	R	K	95.00%	2.54	0.311	0	0	0	1	2	1,983.04	595	611	TRUE	
SNU216_PC1_02	Zinc finger protein 295	IPI00008137	118,871.60	100.00%	2	2	2	0.01%	3.28%	IKTEPSSPLSDPSDIIR	R	V	95.00%	3.24	0.129	0	1	0	0	2	1,934.95	429	445	TRUE	
SNU216_PC1_02	Zinc finger protein 295	IPI00008137	118,871.60	100.00%	2	2	2	0.01%	3.28%	SLSMDSQVPVYSPSIDLK	R	S	95.00%	2.9	0.119	0	1	0	0	2	2,045.95	343	360	TRUE	
SNU216_PC1_02	nuclear transcription factor, X-box binding-like 1	IPI00442274	101,334.90	99.80%	2	2	2	0.01%	1.98%	KASEIKEAEAK	R	A	95.00%	1.98	0.255	0	0	1	0	2	1,283.62	833	843	TRUE	
SNU216_PC1_02	nuclear transcription factor, X-box binding-like 1	IPI00442274	101,334.90	99.80%	2	2	2	0.01%	1.98%	YYCYCGK	R	V	95.00%	0.628	0.776	1	0	0	0	2	1,253.28	232	238	TRUE	
SNU216_PC1_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	3	0.02%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.42	0.327	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216_PC1_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	3	0.02%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.96	0.334	0	2	0	0	2	1,619.71	424	438	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	DSQSASGEERPPEADGK	R	K	95.00%	3.13	0.414	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	ERSDSGGSSSEPFDR	R	H	95.00%	2.25	0.249	0	1	0	0	2	1,772.62	757	771	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	GNSPNSEPPTPK	K	T	82.50%	2.31	0.163	0	1	0	0	2	1,304.55	378	389	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	LAWVGDVFTATPAEPRPLTSPLR	K	Q	95.00%	3.4	0.382	0	0	1	0	2	2,574.31	789	811	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	3.22	0.531	0	1	1	1	2	2,537.95	339	359	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	RKQSSSEISLAVER	R	A	95.00%	2.96	0.298	0	0	1	0	2	1,669.83	453	466	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	SEGSEYEEIPK	R	R	88.00%	1.98	0.187	0	1	0	0	2	1,347.54	1089	1099	TRUE	IPI00643923,IPI00741537
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	8	11	12	0.07%	5.29%	SEGSEYEEIPKR	R	R	95.00%	2.25	0.452	0	2	1	0	2	1,503.64	1089	1100	TRUE	IPI00643923,IPI00741537
SNU216_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	13	0.08%	14.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.39	0.5	0	0	3	0	2	3,217.28	668	695	TRUE	
SNU216_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	13	0.08%	14.90%	ETPHSPGVEDAPIAK	R	V	95.00%	2.93	0.4	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	13	0.08%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.84	0.531	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	13	0.08%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.62	0.526	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	13	0.08%	14.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.3	0.526	0	1	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	13	0.08%	14.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	7.3	0.49	0	0	3	1	2	3,432.41	666	695	TRUE	
SNU216_PC1_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	9	13	0.08%	14.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.2	0.283	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC1_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	7	0.04%	7.71%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	5.47	0.523	0	3	1	0	2	2,296.94	948	966	TRUE	
SNU216_PC1_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	7	0.04%	7.71%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	95.00%	6.52	0.0233	0	0	1	0	2	4,426.91	1057	1096	TRUE	
SNU216_PC1_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	7	0.04%	7.71%	NVHSEDFENR	R	I	80.40%	2.05	0.142	0	1	0	0	2	1,326.51	95	104	TRUE	
SNU216_PC1_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	5	7	0.04%	7.71%	VIPEDASESEEKLDQK	K	E	95.00%	2.7	0.362	0	1	0	0	2	1,896.85	915	930	TRUE	
SNU216_PC1_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	2	2	2	0.01%	3.20%	KTESPIKLSPATPSR	K	K	95.00%	3.78	0.232	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC1_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	2	2	2	0.01%	3.20%	SVAVSDEEEVEEEAER	R	R	95.00%	3.74	0.349	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC1_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	6	9	0.06%	5.82%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	4.23	0.42	0	2	2	0	2	2,882.10	701	724	TRUE	
SNU216_PC1_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	6	9	0.06%	5.82%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	4.91	0.454	0	0	1	0	2	2,764.06	667	688	TRUE	
SNU216_PC1_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	6	9	0.06%	5.82%	SEDESETEDEEEK	R	S	95.00%	2.82	0.354	0	2	0	0	2	1,635.54	668	680	TRUE	
SNU216_PC1_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	6	9	0.06%	5.82%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.05	0.533	0	1	0	0	2	2,607.96	668	688	TRUE	
SNU216_PC1_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	5	6	9	0.06%	5.82%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	6.15	0.589	0	0	1	0	2	2,764.06	668	689	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	P	95.00%	2.99	0.469	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.2	0.407	0	0	1	0	2	3,054.38	939	964	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.87%	RHDEDEDDSLKDR	R	E	95.00%	2.83	0.356	0	0	1	0	2	1,709.68	891	903	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.87%	RRSNTLDIMDGR	R	I	95.00%	3.09	0.29	0	0	1	0	2	1,513.69	1515	1526	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.87%	SNTLDIMDGR	R	I	95.00%	2.33	0.404	0	1	0	0	2	1,201.49	1517	1526	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	4	4	4	0.02%	1.87%	STGQLNLSTSPINSSSYLGYNSNAR	K	S	95.00%	5.36	0.0067	0	1	0	0	2	2,711.23	1474	1498	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	3.88	0.0545	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216_PC1_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	3.52	0.314	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216_PC1_02	RNA binding motif protein 15B	IPI00175136	97,208.40	99.90%	2	2	2	0.01%	2.81%	ASGDPGASGMSPR	K	A	95.00%	1.94	0.317	0	1	0	0	2	1,269.49	99	111	TRUE	
SNU216_PC1_02	RNA binding motif protein 15B	IPI00175136	97,208.40	99.90%	2	2	2	0.01%	2.81%	DRTPPHLLYSDR	R	D	95.00%	3.18	0.412	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216_PC1_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	4.4	0.501	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216_PC1_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	2.83	0.37	0	1	1	0	2	2,089.00	609	627	TRUE	
SNU216_PC1_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.33	0.459	0	0	2	0	2	3,072.32	1263	1291	TRUE	
SNU216_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	5	9	14	0.09%	1.23%	GAGDGSDEEVDGK	K	A	95.00%	2.27	0.458	1	1	0	0	2	1,315.47	1937	1949	TRUE	
SNU216_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	5	9	14	0.09%	1.23%	GAGDGSDEEVDGKADGAEAK	K	P	95.00%	3.19	0.366	0	1	0	0	2	1,957.77	1937	1956	TRUE	
SNU216_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	5	9	14	0.09%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.6	0.537	0	3	3	0	2	2,254.90	1937	1959	TRUE	
SNU216_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	5	9	14	0.09%	1.23%	KGAGDGSDEEVDGK	R	A	95.00%	3.31	0.528	0	1	1	0	2	1,443.56	1936	1949	TRUE	
SNU216_PC1_02	Myosin-9	IPI00019502	226,406.30	100.00%	5	9	14	0.09%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	4.18	0.542	0	2	1	0	2	2,085.86	1936	1956	TRUE	
SNU216_PC1_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	4.05	0.447	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	6	9	0.06%	3.49%	ADHRSSPNVANQPPSPGGK	R	S	95.00%	3.62	0.213	0	0	1	0	2	1,995.90	1167	1185	TRUE	
SNU216_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	6	9	0.06%	3.49%	SKSQDADSPGSSGAPENLTFK	R	E	95.00%	2.93	0.174	0	0	1	0	2	2,202.96	1782	1802	TRUE	
SNU216_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	6	9	0.06%	3.49%	SQDADSPGSSGAPENLTFK	K	E	95.00%	2.99	0.164	0	2	0	0	2	1,987.83	1784	1802	TRUE	
SNU216_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	6	9	0.06%	3.49%	SSPNVANQPPSPGGK	R	S	95.00%	3.4	0.45	0	3	0	0	2	1,596.65	1171	1185	TRUE	
SNU216_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	6	9	0.06%	3.49%	TQVLSPDSLFTAK	K	F	95.00%	2.22	0.291	0	1	0	0	2	1,486.72	1727	1739	TRUE	
SNU216_PC1_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	6	6	9	0.06%	3.49%	TSSVVTLEVAK	R	Q	95.00%	2.41	0.296	1	0	0	0	2	1,213.61	1080	1090	TRUE	
SNU216_PC1_02	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	99.10%	2	2	2	0.01%	2.37%	ESDKEDGRESPSYDTPSQR	K	V	95.00%	2.74	0.198	0	0	1	0	2	2,262.91	75	93	TRUE	
SNU216_PC1_02	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	99.10%	2	2	2	0.01%	2.37%	KHSDPHLLER	K	N	82.90%	2.18	0.159	0	0	1	0	2	1,311.62	240	249	TRUE	
SNU216_PC1_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	3	3	0.02%	14.60%	AGDLLEDSPKRPK	R	E	95.00%	2.74	0.163	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216_PC1_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.80%	2	3	3	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.39	0.223	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC1_02	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	NRPDSGVEEAWK	R	I	95.00%	3.78	0.46	0	1	0	0	2	1,467.63	883	894	TRUE	
SNU216_PC1_02	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	SIVVIHPDTGR	R	E	95.00%	2.83	0.293	0	1	0	0	2	1,273.63	1657	1667	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	4.3	0.418	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	DNSPPPAFKPEPPK	R	A	95.00%	2.88	0.533	0	3	1	0	2	1,600.74	984	997	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	GRSIDQDYER	R	A	95.00%	2.77	0.227	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	GSYGSDAEEEEYR	R	Q	95.00%	2.7	0.482	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.75	0.3	0	1	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	HQYSDYDYHSSSEK	R	L	95.00%	2.72	0.154	0	1	0	0	2	1,905.64	421	434	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.33	0.525	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	RHQYSDYDYHSSSEK	R	L	95.00%	3.78	0.331	0	0	1	1	2	1,981.77	420	434	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	SIDQDYER	R	A	95.00%	1.91	0.257	1	0	0	0	2	1,105.42	244	251	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	3.74	0.387	0	0	3	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC1_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	11	15	19	0.12%	10.90%	SREHPHSRSPSPEPR	R	G	95.00%	2.24	0.272	0	1	0	0	2	1,995.76	286	300	TRUE	
SNU216_PC1_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	100.00%	3	3	3	0.02%	4.65%	RSSDPVPGPPADTQPSASHPGGQSLK	R	L	95.00%	5.17	0.511	0	0	1	0	2	2,650.23	139	164	TRUE	
SNU216_PC1_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	100.00%	3	3	3	0.02%	4.65%	SESPSKDFGPTLGLK	K	K	95.00%	2.15	0.361	0	1	0	0	2	1,642.77	728	742	TRUE	
SNU216_PC1_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	100.00%	3	3	3	0.02%	4.65%	SSSLESLQTAVAEVR	K	K	95.00%	3.15	0.482	0	1	0	0	2	1,656.78	744	758	TRUE	
SNU216_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	4	4	0.02%	2.38%	LDVTILSPSR	K	K	95.00%	3.22	0.334	0	1	0	0	2	1,180.60	977	986	TRUE	
SNU216_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	4	4	0.02%	2.38%	LVSPGSANETSSILVESVTR	R	S	95.00%	4.44	0.17	0	1	0	0	2	2,126.04	2452	2471	TRUE	
SNU216_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	4	4	0.02%	2.38%	QKDFLDGVYAFEYYPSTPGR	K	Y	81.00%	2.88	0.166	0	0	1	0	2	2,433.08	503	522	TRUE	
SNU216_PC1_02	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	4	4	0.02%	2.38%	YADEEIPRSPFK	K	V	95.00%	3.14	0.219	0	1	0	0	2	1,531.68	1497	1508	TRUE	
SNU216_PC1_02	Cyclin G-associated kinase	IPI00298949	143,192.40	100.00%	1	1	1	0.01%	2.36%	ESESALMEDRDESEVSDEGGSPISSEGQEPR	K	A	95.00%	3.82	0.153	0	0	1	0	2	3,498.34	814	844	TRUE	
SNU216_PC1_02	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	3	4	4	0.02%	3.07%	AFKPEETSSNSDPPSPPVLNNSHPVPR	R	S	95.00%	4.15	0.359	0	0	1	0	2	2,980.38	641	667	TRUE	
SNU216_PC1_02	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	3	4	4	0.02%	3.07%	KPISDNSFSSDEEQSTGPIK	R	Y	95.00%	3.39	0.218	0	1	1	0	2	2,325.95	1295	1314	TRUE	
SNU216_PC1_02	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	3	4	4	0.02%	3.07%	SFLESNYFTKPNLK	R	H	80.60%	2.51	0.102	0	1	0	0	2	1,767.84	1046	1059	TRUE	
SNU216_PC1_02	E1A-associated protein p300	IPI00020985	264,138.50	99.80%	2	3	3	0.02%	1.24%	STELKTEIKEEEDQPSTSATQSSPAPGQSK	R	K	95.00%	7.22	0.0599	0	0	1	0	2	3,270.49	1016	1045	TRUE	
SNU216_PC1_02	E1A-associated protein p300	IPI00020985	264,138.50	99.80%	2	3	3	0.02%	1.24%	TEIKEEEDQPSTSATQSSPAPGQSK	K	K	95.00%	4.65	0.0322	0	1	1	0	2	2,712.19	1021	1045	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	APEGDDFLSLHAESDGEGALQVDLGEPAPA	R	W	95.00%	4.96	0.543	0	0	1	0	2	3,781.69	440	476	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	4.86	0.488	0	1	1	0	2	2,434.09	531	554	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	EVLYDSEGLSGEER	R	G	86.30%	2.14	0.224	0	1	0	0	2	1,742.66	729	742	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	4.77	0.415	0	1	1	0	2	2,741.18	225	247	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	GPSPAPASSPK	R	R	95.00%	2.24	0.294	0	1	0	0	2	1,075.48	717	727	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	GPSPAPASSPKR	R	E	95.00%	2.41	0.41	0	2	0	0	2	1,311.55	717	728	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.63	0.502	0	1	1	0	2	2,048.01	496	516	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	QRSPSPAPAPAPAAAAGPPTRK	R	K	95.00%	3.9	0.358	0	0	1	0	2	2,256.07	496	517	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	RRSASPPPATSSSSSSR	R	R	95.00%	3.43	0.419	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	SASPPPATSSSSSSR	R	R	95.00%	2.4	0.318	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	SPFLKPDER	R	A	95.00%	2.17	0.367	0	1	0	0	2	1,168.54	874	882	TRUE	
SNU216_PC1_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	12	15	16	0.10%	12.00%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.16	0.329	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216_PC1_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	8.18%	GEIKDSSPSSSPSPK	K	G	79.70%	2.8	0.0697	0	1	0	0	2	1,582.70	333	347	TRUE	
SNU216_PC1_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	8.18%	HLFSSTENLAAGSWKEPAEGGGLSSDR	K	Q	95.00%	5.06	0.408	0	0	1	0	2	2,883.29	353	379	TRUE	
SNU216_PC1_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	8.18%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	90.50%	6.5	0.015	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216_PC1_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	8.18%	RSSLLSLMTGK	R	K	95.00%	2.59	0.398	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC1_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	8.18%	SPIMADLNLSLPSIPEVASDDER	K	I	95.00%	4.77	0.485	0	0	1	0	2	2,549.18	949	971	TRUE	
SNU216_PC1_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	8	0.05%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	5.02	0.484	0	1	4	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC1_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	100.00%	2	3	8	0.05%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	3.73	0.45	0	3	0	0	2	1,834.79	2477	2491	TRUE	
SNU216_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	5	5	0.03%	15.70%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.27	0.0512	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	5	5	0.03%	15.70%	FMAQGKTGSSSPPGGPPK	G	P	95.00%	2.63	0.211	0	0	1	0	1	1,906.78	312	329	TRUE	
SNU216_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	5	5	0.03%	15.70%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ	R	V	95.00%	8.48	0.573	0	0	1	0	2	4,229.03	209	247	TRUE	
SNU216_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	5	5	0.03%	15.70%	ISASSATR	R	E	95.00%	1.67	0.363	0	1	0	0	2	872.3873	257	264	TRUE	
SNU216_PC1_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	5	5	5	0.03%	15.70%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.07	0.482	0	1	0	0	2	1,632.64	302	317	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	99.30%	2	2	2	0.01%	2.18%	HSSPTEERDEPAYPR	R	G	95.00%	2.66	0.239	0	0	1	0	2	1,850.77	1200	1214	TRUE	
SNU216_PC1_02	Isoform B of Mitogen-activated protein kinase kir	IPI00186536	176,956.20	99.30%	2	2	2	0.01%	2.18%	NLSDIGWPVFEIPSPRPSK	K	G	85.40%	2.18	0.204	0	0	1	0	2	2,219.09	418	436	TRUE	
SNU216_PC1_02	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.90%	2	2	2	0.01%	2.09%	KIPEPSPVTR	K	R	95.00%	1.97	0.317	0	1	0	0	2	1,203.61	1221	1230	TRUE	
SNU216_PC1_02	Isoform 4 of Kinesin family member 21A	IPI00425404,IPI00425405,IP	185,513.80	99.90%	2	2	2	0.01%	2.09%	KLSSSDAPAQDTGSSAAAVETDASR	R	T	95.00%	5.61	0.0062	0	1	0	0	2	2,502.10	838	862	TRUE	
SNU216_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	8	9	0.06%	12.50%	DLDEEGSEKELHENVLDK	K	E	95.00%	3.48	0.246	0	0	1	0	2	2,178.94	573	590	TRUE	
SNU216_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	8	9	0.06%	12.50%	EFDEDSDEKEEEEDTYEK	K	V	95.00%	4.8	0.463	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	8	9	0.06%	12.50%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.9	0.513	0	0	1	0	2	2,837.11	672	695	TRUE	
SNU216_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	8	9	0.06%	12.50%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.49	0.41	0	2	1	0	2	2,271.83	637	654	TRUE	
SNU216_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	8	9	0.06%	12.50%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.19	0.392	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC1_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	6	8	9	0.06%	12.50%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.67	0.259	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216_PC1_02	Protein capicua homolog	IPI00045360	163,789.70	99.90%	1	1	1	0.01%	0.56%	TQSLSALPK	R	E	95.00%	2.12	0.403	0	0	1	0	2	1,024.51	171	179	TRUE	
SNU216_PC1_02	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	99.80%	1	1	1	0.01%	2.12%	ETAAGGLTLKEERSPQTLAPVGEDAMK	K	T	95.00%	3.2	0.212	0	0	1	0	2	2,879.39	1098	1124	TRUE	
SNU216_PC1_02	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	GIGTPPNTTPIKNGSPEIK	K	L	95.00%	3.39	0.452	0	1	0	0	2	2,001.01	107	125	TRUE	
SNU216_PC1_02	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	IQDPTEDAEAEDTPR	R	K	95.00%	2.65	0.352	0	1	0	0	2	1,766.71	532	546	TRUE	
SNU216_PC1_02	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	4	4	0.02%	2.56%	RIQDPTEDAEAEDTPR	K	K	95.00%	3.67	0.326	0	1	1	0	2	1,922.81	531	546	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	ADEGKKETSPESSLIQDEIAVK	K	L	95.00%	4.59	0.312	0	0	1	0	2	2,454.17	1147	1168	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	DGSPEAPASPER	K	E	90.90%	1.99	0.221	0	1	0	0	2	1,372.48	1345	1356	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	DGSPEAPASPEREEVALSEYK	K	T	95.00%	4.14	0.459	0	2	1	0	2	2,341.02	1345	1365	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	ETSPESSLIQDEIAVK	K	L	95.00%	3.8	0.541	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	GHDLSPLASDILTNTSGSMDEGDDYLPATTI	R	A	94.70%	5.87	0.0371	0	0	1	0	2	3,711.66	721	755	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	4.34	0.445	0	1	1	0	2	2,144.06	275	293	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	RKSVPSETVVEDSR	R	T	95.00%	3.1	0.202	0	0	1	0	2	1,668.80	831	844	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	RLSNVSSSGSINLLESPQLATLAEDVTAALAK	R	Q	89.90%	6.23	0.0087	0	0	1	0	2	3,335.71	1793	1824	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	RPSPHDEEEFEVEEAAEAQAEPK	R	D	95.00%	6.73	0.436	0	0	1	0	2	2,704.14	1322	1344	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.77	0.0449	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	SVPSETVVEDSR	K	T	95.00%	2.1	0.287	0	1	0	0	2	1,384.60	833	844	TRUE	
SNU216_PC1_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	12	15	16	0.10%	11.20%	VDHGAEIITQSPGR	R	S	95.00%	3.55	0.478	0	1	1	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC1_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	3	6	0.04%	3.54%	SPSPEPIYNSEGK	R	R	92.70%	2.42	0.15	0	1	0	0	2	1,564.60	204	216	TRUE	
SNU216_PC1_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	3	6	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	4.35	0.381	0	0	2	0	2	2,926.25	191	216	TRUE	
SNU216_PC1_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	3	6	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.9	0.409	0	0	3	0	2	3,082.36	191	217	TRUE	
SNU216_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	231,249.90	100.00%	4	4	4	0.02%	4.12%	AQQELVPPQQQASPPQLPK	R	A	95.00%	3.27	0.414	0	0	1	0	2	2,164.08	879	897	TRUE	
SNU216_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	231,249.90	100.00%	4	4	4	0.02%	4.12%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.74	0.0072	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	231,249.90	100.00%	4	4	4	0.02%	4.12%	SNFSSGPGFPEYGYPADTVWPAMEQVSSRI	R	F	94.20%	6.7	0.0097	0	0	1	0	2	3,882.70	1232	1266	TRUE	
SNU216_PC1_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	231,249.90	100.00%	4	4	4	0.02%	4.12%	SSLSSHSHQSQIYR	R	S	95.00%	2.92	0.285	0	0	1	0	2	1,696.74	1190	1203	TRUE	
SNU216_PC1_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	100.00%	4	4	4	0.02%	4.10%	LQVGQELIDYFSDKQK	R	S	93.60%	2.28	0.224	0	0	0	1	2	1,990.95	21	36	TRUE	
SNU216_PC1_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	100.00%	4	4	4	0.02%	4.10%	NSSNTSVGSPSNTIGR	K	T	95.00%	3.74	0.0918	0	1	0	0	2	1,657.72	1055	1070	TRUE	
SNU216_PC1_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	100.00%	4	4	4	0.02%	4.10%	RQSSGSATNVASTPDNR	R	G	95.00%	3.85	0.533	0	1	0	0	2	1,827.80	644	660	TRUE	
SNU216_PC1_02	CLIP-associating protein 1	IPI00396279,IPI00645145	162,115.50	100.00%	4	4	4	0.02%	4.10%	SRSDIDVNAAASAK	R	S	95.00%	4.51	0.493	0	1	0	0	2	1,484.67	598	611	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.42%	DSALAEAPEGLSPAPPAR	R	S	95.00%	3.44	0.377	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.42%	RHDSVENSDSHVEK	R	K	95.00%	2.85	0.195	0	0	1	0	2	1,718.71	1163	1176	TRUE	
SNU216_PC1_02	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.07%	IIPELVGSPTQSTSSR	K	T	94.20%	2.49	0.162	0	1	0	0	2	1,751.86	1468	1483	TRUE	
SNU216_PC1_02	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.07%	LKAESISEEADSEPGR	K	S	95.00%	2.69	0.314	0	1	0	0	2	1,877.76	1782	1797	TRUE	
SNU216_PC1_02	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	3	4	4	0.02%	2.07%	RLSLDIQSPPNIGLR	R	R	95.00%	3.51	0.478	0	1	1	0	2	1,758.93	694	708	TRUE	
SNU216_PC1_02	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	99.80%	1	2	2	0.01%	1.45%	RDSPLQGSGQQNSQAGQR	R	N	95.00%	4.92	0.574	0	1	1	0	2	1,993.88	637	654	TRUE	
SNU216_PC1_02	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	3	3	0.02%	2.40%	DTPRPDHPPHDGHSPASR	R	E	95.00%	2.99	0.372	0	0	0	1	2	2,055.88	1197	1214	TRUE	
SNU216_PC1_02	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	3	3	0.02%	2.40%	SSSLDGEHHDGYHR	R	D	95.00%	2.55	0.302	0	1	1	0	2	1,676.65	1277	1290	TRUE	
SNU216_PC1_02	Probable helicase with zinc-finger domain	IPI00000897	218,973.20	99.80%	1	1	2	0.01%	1.34%	SPPAVPSPPSSTDHSSHFSNFNDNSR	R	D	95.00%	3.38	0.301	0	0	2	0	2	2,928.16	1614	1639	TRUE	
SNU216_PC1_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	3	3	0.02%	3.75%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	3.85	0.449	0	0	1	0	2	2,778.05	587	608	TRUE	
SNU216_PC1_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	3	3	0.02%	3.75%	STEDLSPQK	K	S	95.00%	1.83	0.397	0	1	0	0	2	1,084.46	852	860	TRUE	
SNU216_PC1_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	3	3	3	0.02%	3.75%	TEDVMFISDNESFNPSLWEEQR	R	K	95.00%	3.82	0.564	0	1	0	0	2	2,753.14	433	454	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	EHQEMDEGSQSLEK	K	L	95.00%	2.82	0.278	0	1	0	0	2	1,726.66	1296	1309	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	EVSPSDVR	R	E	95.00%	1.87	0.364	0	1	0	0	2	968.4085	1951	1958	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	ISFVEEDVHPK	R	W	95.00%	2.22	0.227	0	1	0	0	2	1,379.62	1240	1250	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	LISPLASPADGVK	R	S	91.90%	2.01	0.211	0	1	0	0	2	1,427.66	2229	2241	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	NLSFNELYPSGTLK	R	L	95.00%	2.81	0.422	0	1	0	0	2	1,662.78	1548	1561	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	SLPSSSQLKGSPQAISR	R	A	95.00%	3.78	0.371	0	1	1	0	2	1,822.91	1159	1175	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	STPLASPSPSPGRSPQR	R	L	95.00%	3.5	0.415	0	1	1	0	2	1,801.86	1218	1234	TRUE	
SNU216_PC1_02	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	8	10	10	0.06%	4.56%	TTSFFLNSPEKEHQEMDEGSQSLEK	R	L	95.00%	5.79	0.175	0	0	1	0	2	2,978.28	1285	1309	TRUE	
SNU216_PC1_02	Isoform Short of Adenomatous polyposis coli pro	IPI00215877	300,441.80	99.80%	2	2	2	0.01%	1.28%	DIQRPDSEHGLSPDSENFDWK	K	A	95.00%	3.09	0.234	0	0	1	0	2	2,552.07	1981	2001	TRUE	
SNU216_PC1_02	Isoform Short of Adenomatous polyposis coli pro	IPI00215877	300,441.80	99.80%	2	2	2	0.01%	1.28%	SKTPPPPPQTAQTK	R	R	95.00%	2.25	0.251	0	1	0	0	2	1,557.77	1335	1348	TRUE	
SNU216_PC1_02	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	2	2	2	0.01%	1.55%	AHTPLNTPDPSTK	R	L	95.00%	2.15	0.282	0	1	0	0	2	1,458.66	1348	1360	TRUE	
SNU216_PC1_02	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	2	2	2	0.01%	1.55%	KSESPFRETEPLVSPHQDK	K	L	95.00%	3.94	0.355	0	0	1	0	2	2,291.07	238	256	TRUE	IPI00442150
SNU216_PC1_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	4.21%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.94	0.461	0	1	0	0	2	2,114.05	687	705	TRUE	
SNU216_PC1_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	4.21%	GSHQISLDNPDYQQDFFPK	K	E	95.00%	4.07	0.475	0	1	1	0	2	2,316.00	1161	1179	TRUE	
SNU216_PC1_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	3	4	4	0.02%	4.21%	MHLPSPTDSNFYR	R	A	95.00%	2.44	0.278	0	1	0	0	2	1,644.69	987	999	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	AASPSPQSVR	K	R	95.00%	1.46	0.294	1	1	0	0	2	1,159.45	745	754	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	APQTSSSPPPVR	R	R	95.00%	2.4	0.227	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	EKTPELPEPSVK	K	V	95.00%	2.61	0.397	0	2	0	0	2	1,433.69	218	229	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	HRPSPPATPPPK	R	T	95.00%	2.66	0.362	0	3	3	0	2	1,361.67	394	405	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	KEKTPELPEPSVK	K	V	95.00%	2.77	0.2	0	0	1	0	2	1,561.79	217	229	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	KETESEAEDNLDDLEK	K	H	95.00%	4.81	0.508	0	2	2	0	2	1,944.80	879	894	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	5.44	0.516	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216_PC1_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.73	0.482	0	0	4	1	2	2,791.42	772	797	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	KVELSESEEDKGGK	R	M	95.00%	3.01	0.302	0	2	0	0	2	1,614.73	454	467	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	RESPSPAPKPR	K	K	95.00%	3.1	0.399	0	2	1	0	2	1,301.64	443	453	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	RQSPSPSTRPIR	R	R	95.00%	2.22	0.232	0	1	0	0	2	1,541.70	720	731	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	RRSPSPAPPPR	R	R	95.00%	3.33	0.421	0	0	1	0	2	1,297.65	567	577	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	RRSPSPPPTR	R	R	88.90%	2.17	0.208	0	0	1	0	2	1,230.61	556	565	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	RTASPPPPPK	R	R	95.00%	1.95	0.249	0	1	0	0	2	1,127.56	622	631	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	RTPTPPPR	R	R	85.10%	1.79	0.189	0	1	0	0	2	1,081.46	580	587	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	SVSGSPEPAAK	R	K	95.00%	2.31	0.348	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	TASPPPPPK	R	R	95.00%	2.16	0.479	0	1	0	0	2	1,051.43	623	631	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	TASPPPPPKR	R	R	95.00%	1.89	0.294	0	1	0	0	2	1,127.56	623	632	TRUE	
SNU216_PC1_02	Serine/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	19	26	40	0.25%	21.20%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.54	0.49	0	1	2	2	2	1,977.99	247	263	TRUE	
SNU216_PC1_02	Golgin subfamily B member 1	IPI00004671	376,075.90	100.00%	1	1	1	0.01%	0.52%	SAAQPSTSPAEVQSLKK	R	A	95.00%	2.74	0.387	0	1	0	0	2	1,808.88	2865	2881	TRUE	
SNU216_PC1_02	Isoform 1 of Rap guanine nucleotide exchange fa	IPI00008865,IPI00291839,IP	157,499.50	99.80%	2	2	2	0.01%	1.75%	LPEGPVDSEDDEEEEDEEIDR	R	T	95.00%	4.89	0.582	0	1	0	0	2	2,396.91	223	242	TRUE	
SNU216_PC1_02	Isoform 1 of Rap guanine nucleotide exchange fa	IPI00008865,IPI00291839,IP	157,499.50	99.80%	2	2	2	0.01%	1.75%	RSSLLNAK	R	K	95.00%	2.46	0.194	0	1	0	0	2	968.4925	1092	1099	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	4	4	0.02%	8.37%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	2.64	0.384	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	4	4	0.02%	8.37%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	3.53	0.47	0	1	1	0	2	2,008.94	381	399	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	4	4	0.02%	8.37%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	4.88	0.391	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC1_02	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	3	3	3	0.02%	2.69%	KASISLTDDEVDDEEETIEEEEANEGVVDHQ	R	E	95.00%	8.15	0.0219	0	0	1	0	2	4,490.90	902	940	TRUE	
SNU216_PC1_02	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	3	3	3	0.02%	2.69%	RSPPIKPLLGMNPFQK	K	N	95.00%	3.47	0.377	0	0	1	0	2	1,903.00	2438	2453	TRUE	
SNU216_PC1_02	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	3	3	3	0.02%	2.69%	VAVNALAVGEPGTASKPASPIGGPTQEEK	R	T	95.00%	4.53	0.45	0	0	1	0	2	2,855.42	1677	1705	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.14	0.316	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	ETQSPEQVKSEK	K	L	95.00%	2.92	0.416	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.25	0.583	0	3	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.7	0.527	0	0	2	1	2	2,726.13	369	391	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	KAEGEPQEESPLK	K	S	95.00%	3.17	0.305	0	1	1	0	2	1,521.68	168	180	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	KAEGEPQEESPLKSK	K	S	95.00%	3.99	0.429	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	KETQSPEQVKSEK	K	L	95.00%	3.39	0.355	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	LKDLFDYSPPLHK	K	N	95.00%	3.16	0.298	0	2	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	NTPSQHSHSIQHSPER	K	S	95.00%	3.09	0.149	0	1	2	0	2	1,921.83	256	271	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.92	0.564	0	3	1	0	2	2,257.84	392	409	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.16	0.424	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.77	0.391	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC1_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	19	26	0.16%	16.80%	YSPSQNSPIHHIPSR	R	R	95.00%	3.02	0.341	0	0	1	0	2	1,799.82	284	298	TRUE	
SNU216_PC1_02	Factor for adipocyte differentiation 104 variant (F	IPI00217490	132,879.60	99.80%	1	1	1	0.01%	0.83%	LNSPPSSIYK	R	S	95.00%	1.95	0.249	0	1	0	0	2	1,185.56	206	215	TRUE	
SNU216_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	5	6	7	0.04%	2.86%	ALQHTESPSETNKPHSK	K	S	95.00%	3.07	0.303	0	0	1	1	2	1,970.90	94	110	TRUE	
SNU216_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	5	6	7	0.04%	2.86%	ESTDDESNPLGR	R	A	95.00%	2.63	0.393	0	1	0	0	2	1,399.54	1375	1386	TRUE	
SNU216_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	5	6	7	0.04%	2.86%	HLAESESLLTSPPK	K	A	95.00%	2.7	0.433	0	1	0	0	2	1,588.76	932	945	TRUE	
SNU216_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	5	6	7	0.04%	2.86%	KRSESPPAELPSLR	K	R	95.00%	2.48	0.276	0	0	1	0	2	1,726.79	308	321	TRUE	
SNU216_PC1_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	5	6	7	0.04%	2.86%	SESPPAELPSLR	R	R	95.00%	2.44	0.525	0	2	0	0	2	1,362.63	310	321	TRUE	
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.38	0.426	0	1	1	0	2	2,438.12	4224	4246	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	AQLEPVASPAK	K	K	95.00%	2.17	0.215	1	1	0	0	2	1,190.58	1291	1301	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	ARSDEGQLSPATR	R	G	95.00%	3.1	0.312	0	0	1	0	2	1,467.66	575	587	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	GYYSPVSVSGSGSTAGSR	K	T	86.90%	3.67	0	0	2	0	0	2	1,862.76	4473	4490	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	KRTSSEDNLYLAVLR	R	A	95.00%	2.99	0.245	0	0	1	0	2	1,844.93	17	31	TRUE	
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	4.52	0.148	0	2	3	0	2	2,853.15	4503	4529	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	RTSSEDNLYLAVLR	K	A	95.00%	3.36	0.409	0	0	1	0	2	1,716.83	18	31	TRUE	
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	SDEGQLSPATR	R	G	95.00%	2.45	0.326	0	1	0	0	2	1,240.52	577	587	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	SLQEEHVAVAQLR	R	E	95.00%	2.07	0.244	0	1	0	0	2	1,559.76	1595	1607	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	SSSVGSSSSYPISPAVSR	R	T	95.00%	2.88	0.369	0	4	0	0	2	1,834.82	4247	4264	FALSE	IPI00398002,IPI00186711
SNU216_PC1_02	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	3	3	0.02%	3.03%	TSSEDNLYLAVLR	R	A	95.00%	3.17	0.401	0	1	0	0	2	1,560.73	19	31	TRUE	
SNU216_PC1_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	3	5	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	2.77	0.379	0	2	0	0	2	2,013.96	360	377	TRUE	
SNU216_PC1_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	3	5	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.08	0.469	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC1_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	3	5	0.03%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.07	0.389	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC1_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	99.10%	2	2	2	0.01%	4.44%	SHSGTSPDNTAPPPPPPRPQPSHSR	R	S	88.60%	2.71	0.208	0	0	1	0	2	2,681.22	483	507	TRUE	
SNU216_PC1_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	99.10%	2	2	2	0.01%	4.44%	SSSLDMNR	R	T	81.90%	1.84	0.169	0	1	0	0	2	989.3758	508	515	TRUE	
SNU216_PC1_02	Isoform 1 of Transcriptional-regulating factor 1	IPI00044583	132,255.20	99.20%	2	3	3	0.02%	4.58%	DKPASSMSDDEMPVLEIPR	R	K	95.00%	3.2	0.446	0	1	1	0	2	2,196.96	614	632	TRUE	
SNU216_PC1_02	Isoform 1 of Transcriptional-regulating factor 1	IPI00044583	132,255.20	99.20%	2	3	3	0.02%	4.58%	HRPEPLFIPPPPSYNPNPAASYSGATLYQSQ	R	V	83.50%	4.62	0.0447	0	0	0	1	2	4,086.00	656	691	TRUE	
SNU216_PC1_02	Myosin-10	IPI00397526	228,945.20	100.00%	1	2	2	0.01%	0.96%	QLHLEGASLELSDDDTESK	R	T	95.00%	3.5	0.261	0	1	1	0	2	2,166.94	1945	1963	TRUE	
SNU216_PC1_02	ankyrin repeat domain protein 17 isoform a	IPI00745557	275,075.90	99.70%	1	1	1	0.01%	0.84%	EHYPVSSPSSPSPPAQPGGVSR	K	N	94.30%	4.3	0	0	1	0	0	2	2,380.00	2042	2063	TRUE	
SNU216_PC1_02	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	2	2	2	0.01%	2.78%	LKGNKHDDGTQSDSENAGAHR	R	R	95.00%	2.38	0.221	0	0	1	0	2	2,317.00	369	389	TRUE	
SNU216_PC1_02	KARP-1-binding protein	IPI00186194	175,439.10	100.00%	2	2	2	0.01%	2.78%	QGSFTIEKPSPNIPIELIPHINK	R	Q	95.00%	3.08	0.246	0	0	1	0	2	2,652.38	837	859	TRUE	
SNU216_PC1_02	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	99.80%	1	1	1	0.01%	1.30%	KSPESEILSLHLLVEELR	R	L	95.00%	4.13	0.541	0	0	1	0	2	2,172.13	713	730	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	AADISLDNLVEGK	K	R	95.00%	2.54	0.373	0	1	0	0	2	1,424.67	1619	1631	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	EEKSVEYEGDLK	K	S	95.00%	3.36	0.439	0	1	0	0	2	1,505.64	811	822	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	95.00%	4.67	0.382	0	0	1	1	2	4,155.93	282	317	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	ETAVPGPLGIEDISPNLSPDDK	R	S	95.00%	3.42	0.476	0	2	1	0	2	2,344.10	1418	1439	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	ETAVPGPLGIEDISPNLSPDDKSFSR	R	V	95.00%	3.51	0.347	0	0	1	0	2	2,821.33	1418	1443	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	GNLLHFPSSQGEEEK	R	E	95.00%	2.48	0.203	0	1	0	0	2	1,751.76	1065	1079	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	GNLLHFPSSQGEEEKEK	R	L	82.10%	3.43	0.0859	0	0	1	0	2	2,008.90	1065	1081	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	95.00%	3.41	0.283	0	0	0	2	2	4,330.76	1206	1243	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	4.32	0.441	0	3	1	0	2	2,657.12	541	563	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	KNGSTAVAESVASPQK	R	T	95.00%	3.44	0.438	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	LAILDQELEHKEQEAWEEATSEDSSVVIVDV	K	V	95.00%	6.38	0.412	0	0	0	1	2	4,286.04	736	772	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	LDTKEEKSVEYEGDLK	R	S	95.00%	3.5	0.319	0	1	1	0	2	1,962.89	807	822	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	LITSEEERSPAK	K	R	81.20%	2.27	0.124	0	1	0	0	2	1,439.68	1675	1686	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.43	0.583	0	1	2	0	2	2,539.15	1112	1134	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	7.15	0.59	0	1	3	0	2	2,881.31	1112	1137	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	NGSTAVAESVASPQK	K	T	95.00%	3.77	0.37	0	1	0	0	2	1,525.69	1022	1036	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	4.81	0.406	0	1	3	0	2	2,457.22	1090	1111	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.37	0.48	0	0	2	0	2	3,282.51	1464	1495	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	SDSPEIPFQAAAGPSDGLDASSPGNSFVGLF	R	V	95.00%	4.37	0.366	0	0	1	0	2	3,126.41	1465	1495	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	SEDMPFSPK	R	A	95.00%	2.17	0.288	0	2	0	0	2	1,133.42	264	272	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	SGTAETEPVEQDSSQPSLPLVR	K	A	95.00%	4.22	0.52	0	1	1	0	2	2,407.10	823	844	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	SKLPDGPTGSSEEEEEFLEIPPFNK	K	Q	95.00%	3.54	0.241	0	0	1	0	2	2,856.29	1754	1778	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	SNVSSPATPTASSSSSTTPTR	R	K	91.30%	3.97	-0.0086	0	1	0	0	2	2,102.92	1636	1656	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	SPEPEVLSTQEDLFDQSNK	K	T	95.00%	4.42	0.566	0	1	0	0	2	2,242.98	299	317	TRUE	
SNU216_PC1_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	25	33	45	0.28%	20.70%	TSSGTSLSAMHSSGSSGK	R	G	87.10%	3.45	0.0209	0	2	0	0	2	1,748.72	1320	1337	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	DKDVTLSPVK	K	A	95.00%	2.69	0.256	0	1	0	0	2	1,181.58	1525	1534	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	EQESDEEEEEEEEEDEPSGATTR	K	S	95.00%	4.8	0.671	0	1	0	0	2	2,633.94	2983	3004	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	KEQESDEEEEEEEEEDEPSGATTR	K	S	95.00%	5	0.551	0	0	1	0	2	2,762.03	2982	3004	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	3.33	0.249	0	0	2	0	2	2,539.06	2774	2794	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	QHYLSSEDEPDDNPDVLDSR	K	I	95.00%	3.56	0.506	0	1	1	0	2	2,490.93	2775	2794	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	4.22	0.413	0	0	1	1	2	3,718.48	2973	3004	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	TDTGIVTVEQSPSSSK	K	L	95.00%	3.52	0.306	0	1	0	0	2	1,715.77	2895	2910	TRUE	
SNU216_PC1_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	8	10	11	0.07%	3.05%	YYSDSDDELTVEQR	K	R	95.00%	3.33	0.527	0	1	0	0	2	1,799.70	480	493	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.63	0.5	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	TGSESSQTGTSTTSSR	R	N	92.40%	3.47	0.0412	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC1_02	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	100.00%	1	2	2	0.01%	1.63%	ASPSPQPSSQPLQIHR	R	Q	95.00%	3	0.327	0	1	1	0	2	1,809.86	143	158	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.00%	1	1	1	0.01%	1.60%	APSPPLSQVFQTR	R	A	95.00%	2.46	0.236	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216_PC1_02	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	100.00%	3	4	4	0.02%	4.89%	ENDLYVLPPLQEEEKHSSEEEDEKEWQER	R	M	95.00%	3.51	0.297	0	0	1	0	2	3,774.57	140	168	TRUE	
SNU216_PC1_02	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	100.00%	3	4	4	0.02%	4.89%	LKTEKEPDATPPSPR	K	T	95.00%	2.98	0.269	0	1	1	0	2	1,745.85	329	343	TRUE	
SNU216_PC1_02	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	100.00%	3	4	4	0.02%	4.89%	NAPAAVDEGSISPR	R	T	95.00%	3.41	0.386	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216_PC1_02	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	IRAEEEDLAAVPFLASDNEEEEDEKGNSGSLI	R	K	95.00%	7.29	0.543	0	0	1	1	2	3,712.69	2913	2945	TRUE	
SNU216_PC1_02	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	KDEEETPAPIYR	K	A	94.50%	2.21	0.229	0	1	0	0	2	1,527.67	82	93	TRUE	
SNU216_PC1_02	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	KQSPVPALPIVVQLMEMGFSR	R	R	95.00%	6.11	0.53	0	0	1	0	2	2,407.23	2452	2472	TRUE	
SNU216_PC1_02	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	5	5	0.03%	1.39%	RKQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.26	0.474	0	0	1	0	2	2,563.33	2451	2472	TRUE	
SNU216_PC1_02	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.00%	2	3	3	0.02%	4.40%	GISPIVFDR	R	S	80.40%	1.62	0.225	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216_PC1_02	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	99.00%	2	3	3	0.02%	4.40%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.35	0.415	0	0	1	1	2	2,465.14	415	437	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	ASPGHSPHYFAASSPTSPNALPPAR	R	K	95.00%	3.57	0.362	0	0	1	0	2	2,597.19	1851	1875	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	DLAVPAALTPR	R	A	95.00%	2.67	0.443	0	1	0	0	2	1,203.61	1840	1850	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	3	3	3	0.02%	2.75%	KASPPSGLWSPAYASH	R	-	95.00%	2.86	0.312	0	0	1	0	2	1,735.78	1876	1891	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.80%	2	2	2	0.01%	2.71%	AHFNAMFQPSSPTR	R	R	95.00%	4.18	0.444	0	1	0	0	2	1,670.71	894	907	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.80%	2	2	2	0.01%	2.71%	DLDRPESQSPK	K	R	95.00%	2.19	0.238	0	1	0	0	2	1,351.59	170	180	TRUE	
SNU216_PC1_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.80%	2	2	2	0.01%	4.07%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.77	0.496	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216_PC1_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	99.80%	2	2	2	0.01%	4.07%	GLWSTDSAEEDKETK	R	R	95.00%	2.68	0.188	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216_PC1_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	7.82%	NPSDSAVHSPFTK	K	R	95.00%	3.37	0.55	0	1	0	0	2	1,466.63	410	422	TRUE	
SNU216_PC1_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	7.82%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.73	0.307	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216_PC1_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	7.82%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.28	0.378	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216_PC1_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	7.82%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	93.50%	3.53	0.0423	0	1	0	0	2	2,612.09	462	486	TRUE	
SNU216_PC1_02	Isoform 1 of YEATS domain-containing protein 2	IPI00008200	150,780.00	99.50%	2	2	2	0.01%	2.11%	GGHMIAVSPQK	K	Q	90.30%	1.82	0.244	0	1	0	0	2	1,204.55	620	630	TRUE	
SNU216_PC1_02	Isoform 1 of YEATS domain-containing protein 2	IPI00008200	150,780.00	99.50%	2	2	2	0.01%	2.11%	QPGQVIGATTPSTGSPTNK	K	I	94.40%	2.58	0.17	0	1	0	0	2	1,920.91	505	523	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	ASPEPPGPESSSR	R	W	93.80%	2.01	0.24	0	1	0	0	2	1,377.57	671	683	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	DAELQDQEFGKRDSLGTYSSR	R	D	95.00%	3.57	0.136	0	1	0	0	2	2,482.09	859	879	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	4.2	0.347	0	0	1	1	2	2,929.37	1015	1043	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	DSLGAYASQDANEQGQDLGK	R	R	95.00%	3.52	0.521	0	1	0	0	2	2,146.89	892	911	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	DVSLGDWEFGKRDSLGAYASQDANEQGQ	R	R	95.00%	6.1	0.485	0	0	1	0	2	3,536.56	880	911	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	EAAFSPGQQDWSR	R	D	95.00%	2.61	0.34	0	1	0	0	2	1,558.63	1099	1111	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	FSEGVLQSPSQDQEK	R	L	95.00%	2.8	0.195	0	1	0	0	2	1,758.76	428	442	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.08	0.324	0	1	2	0	2	2,090.97	1023	1043	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	KEVLASPDR	R	L	86.60%	2.07	0.164	0	1	0	0	2	1,094.52	173	181	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	LDSPPPSPITEASEAAEAAEAGNLAVSSR	R	E	95.00%	4.47	0.408	0	0	1	0	2	2,917.35	492	520	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	6.75	0.563	0	1	0	0	2	2,302.99	891	911	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	3.67	0.132	0	1	0	0	2	2,459.10	891	912	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	SAEEGELAESK	R	S	95.00%	2.2	0.379	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	SFGTRPLSSGFSPEEAQQQDEEFEK	R	K	84.70%	4.54	0.0579	0	0	1	0	2	2,910.25	976	1000	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	4.3	0.519	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	SQEADVQDWEFR	R	K	95.00%	3.09	0.448	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	TTAGSVDWTDQLGLR	K	N	95.00%	2.69	0.317	0	1	0	0	2	1,699.77	1154	1168	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	VPSSDEEVVEEPQSR	R	R	95.00%	4.42	0.509	0	3	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	VSGAGFSPSSK	R	M	95.00%	1.98	0.334	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	WLDDLLASPPPSGGGAR	R	R	95.00%	3.28	0.326	0	1	0	0	2	1,788.83	684	700	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	WSDQGPAQTSR	R	R	95.00%	2.41	0.429	0	1	0	0	2	1,312.53	1532	1542	TRUE	
SNU216_PC1_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	22	26	29	0.18%	18.40%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.57	0.582	0	1	1	0	2	2,166.01	590	608	TRUE	
SNU216_PC1_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	1	2	3	0.02%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.36	0.533	0	2	1	0	2	2,238.86	634	651	TRUE	
SNU216_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	5	6	0.04%	2.27%	EKKPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.49	0.419	0	0	1	1	2	2,717.25	518	542	TRUE	
SNU216_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	5	6	0.04%	2.27%	KPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.09	0.405	0	0	2	0	2	2,460.11	520	542	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	5	6	0.04%	2.27%	SSPVKKPSLLK	K	A	95.00%	2.23	0.229	0	0	1	0	2	1,263.71	556	566	TRUE	
SNU216_PC1_02	80 kda MCM3-associated protein	IPI00028954	218,405.30	100.00%	4	5	6	0.04%	2.27%	TGASSLLNKSSPVK	R	K	95.00%	3.14	0.306	0	1	0	0	2	1,468.74	547	560	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	90.20%	3.72	0.0079	0	1	0	0	2	2,784.31	1467	1492	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.98	0.423	0	2	1	0	2	2,366.08	1320	1340	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	KIKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.29	0.291	0	0	1	0	2	2,494.17	1319	1340	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	KPSTSDDSDSNFEK	R	I	95.00%	2.58	0.185	0	1	0	0	2	1,636.64	1548	1561	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	KTQMAEVLPSPR	K	G	95.00%	2.92	0.458	0	1	0	0	2	1,436.70	1285	1296	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	NENTEGSPQEDGVELEGLK	K	Q	95.00%	2.78	0.248	0	1	0	0	2	2,124.90	1322	1340	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	SKGESDDFHMDFDSAVAPR	K	A	95.00%	3.05	0.326	0	0	1	0	2	2,190.88	1572	1590	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	SVVSDLEADDVK	K	G	95.00%	2.4	0.398	0	2	0	0	2	1,356.59	1455	1466	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	SVVSDLEADDVKGSVPLSSSPPATHFPDETE	K	K	95.00%	5.16	0.384	0	0	3	2	2	4,041.92	1455	1492	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	TQMAEVLPSPR	K	G	95.00%	2.86	0.424	0	1	0	0	2	1,308.60	1286	1296	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	VPDEEENEESDNEK	K	E	95.00%	2.4	0.254	0	1	0	0	2	1,742.63	1178	1191	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	VPDEEENEESDNEKETEK	K	S	95.00%	3.81	0.493	0	2	1	0	2	2,229.86	1178	1195	TRUE	
SNU216_PC1_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	13	16	22	0.14%	8.55%	YLEESDEDDLF	K	-	95.00%	2.2	0.259	0	1	0	0	2	1,454.52	1602	1612	TRUE	
SNU216_PC1_02	374 kDa protein	IPI00470478,IPI00642126	373,852.30	99.80%	1	1	1	0.01%	0.49%	DFATPSLHTSDQSPGK	R	H	95.00%	3.1	0.333	0	1	0	0	2	1,767.76	334	349	TRUE	
SNU216_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.50%	AAVLSDSEDEEKASAK	K	K	95.00%	2.26	0.242	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.50%	EAEDSDSDDNIKR	K	G	95.00%	2.4	0.217	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.50%	HQASDSENEELPKPR	R	I	95.00%	2.48	0.335	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.50%	MDSDEDEKEGEEEK	K	V	95.00%	2.88	0.373	0	1	0	0	2	1,749.60	375	388	TRUE	
SNU216_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.50%	NQASDSENEELPKPR	R	V	95.00%	2.4	0.35	0	1	0	0	2	1,873.74	284	298	TRUE	
SNU216_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.50%	TIASDSEEEAGKELSDKK	K	N	91.30%	2.08	0.249	0	1	0	0	2	2,096.87	435	452	TRUE	
SNU216_PC1_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	7	7	7	0.04%	12.50%	VSDSESEGPQK	R	G	92.00%	1.69	0.291	0	1	0	0	2	1,242.49	299	309	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.89	0.164	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	DMESPTKLDVTLAK	K	D	95.00%	3.95	0.361	0	3	1	0	2	1,627.77	305	318	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	DMSPLSETEMALGK	K	D	95.00%	2.66	0.524	0	5	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.68	0.476	0	0	4	0	2	3,106.50	533	560	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	DVTPPPETEVVLIK	K	N	95.00%	2.19	0.206	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	ETERASPIKMDLAPSK	K	D	95.00%	3.13	0.268	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	6.85	0.0415	0	0	1	0	2	3,569.64	628	661	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	6.04	0.0376	0	0	0	1	2	3,697.73	628	662	TRUE	
SNU216_PC1_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	9	11	20	0.12%	12.00%	SPSTLLPK	R	K	95.00%	1.81	0.282	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216_PC1_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.80%	2	2	2	0.01%	3.54%	SPDEATAADQESEDDLSASR	K	T	95.00%	6.1	0.57	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216_PC1_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	99.80%	2	2	2	0.01%	3.54%	SSSPAPEFLASSPPDNK	K	S	95.00%	2.66	0.226	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216_PC1_02	Cleavage and polyadenylation specificity factor, 1	IPI00026219	160,885.90	100.00%	2	2	3	0.02%	2.70%	SGPEAEGLGSETSPTVDDEEEMLYGDSGSLF	R	E	95.00%	3.44	0.315	0	0	1	0	2	3,700.53	725	759	TRUE	
SNU216_PC1_02	Cleavage and polyadenylation specificity factor, 1	IPI00026219	160,885.90	100.00%	2	2	3	0.02%	2.70%	SGPEAEGLGSETSPTVDDEEEMLYGDSGSLF	R	R	95.00%	6.15	0.0539	0	0	2	0	2	4,169.75	725	763	TRUE	
SNU216_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	7	7	10	0.06%	7.19%	DSEDVSERDSDKEMATK	R	S	95.00%	3.11	0.341	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	7	7	10	0.06%	7.19%	EGVTPWASFKK	R	M	95.00%	2.42	0.24	0	1	0	0	2	1,329.62	604	614	TRUE	
SNU216_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	7	7	10	0.06%	7.19%	GLAEVQQDGEAEEGATSDGEK	K	K	95.00%	2.98	0.342	0	3	0	0	2	2,199.89	581	601	TRUE	
SNU216_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	7	7	10	0.06%	7.19%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	4.47	0.502	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	7	7	10	0.06%	7.19%	RPSESDKEDELDK	R	V	95.00%	2.2	0.325	0	2	0	0	2	1,627.69	624	636	TRUE	
SNU216_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	7	7	10	0.06%	7.19%	SPPSPVER	K	E	85.70%	1.46	0.275	0	1	0	0	2	948.4187	1327	1334	TRUE	
SNU216_PC1_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	7	7	10	0.06%	7.19%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	4.82	0.479	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	2	2	2	0.01%	3.29%	AESGDSLGSEDRDLLYSIDAYR	R	S	95.00%	2.49	0.208	0	0	1	0	2	2,512.09	656	677	TRUE	
SNU216_PC1_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	2	2	2	0.01%	3.29%	ATSPVKSTTSITDAK	K	S	95.00%	3	0.453	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC1_02	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	3	3	3	0.02%	2.77%	SMSGGHGLR	R	V	95.00%	2.04	0.416	0	1	0	0	2	981.3973	1130	1138	TRUE	
SNU216_PC1_02	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	3	3	3	0.02%	2.77%	SQSGTLDGESAAWSASGEDSR	R	G	95.00%	4.81	0.582	0	1	0	0	2	2,177.86	1418	1438	TRUE	
SNU216_PC1_02	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	100.00%	3	3	3	0.02%	2.77%	SSSSPELQTLQDILGDPGDK	K	A	95.00%	3.91	0.0629	0	1	0	0	2	2,166.98	1385	1404	TRUE	
SNU216_PC1_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	1	1	1	0.01%	2.95%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.09	0.464	0	0	1	0	2	2,204.91	309	328	TRUE	
SNU216_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.00%	2	2	2	0.01%	2.98%	DGLLMPSMSESDLTTSGR	R	Y	80.90%	1.98	0.23	0	1	0	0	2	1,976.83	789	806	TRUE	
SNU216_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.00%	2	2	2	0.01%	2.98%	RNSIEVAGLSHGLEGLR	K	L	95.00%	5.2	0.446	0	0	1	0	2	1,887.94	635	651	TRUE	
SNU216_PC1_02	Isoform 1 of Neurabin-1	IPI00008144	123,343.60	99.30%	1	1	1	0.01%	1.73%	RTSLGEVSKGDTMENLDGK	R	Q	95.00%	4.67	0.415	0	0	1	0	2	2,116.96	838	856	TRUE	
SNU216_PC1_02	Isoform Alpha of Caveolin-2	IPI00019870,IPI00386526	18,291.60	99.80%	1	1	3	0.02%	15.40%	ADVQLFMDDDSYSHHSGLEYADPEK	K	F	95.00%	3.28	0.2	0	0	3	0	2	2,949.19	8	32	TRUE	
SNU216_PC1_02	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	3	3	3	0.02%	3.53%	EIKDSTSQHDDDNISTTSGFSSR	K	A	95.00%	2.69	0.202	0	0	1	0	2	2,607.08	168	190	TRUE	
SNU216_PC1_02	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	3	3	3	0.02%	3.53%	NTSLPPLWSPEAER	K	S	95.00%	2.25	0.288	0	1	0	0	2	1,676.77	201	214	TRUE	
SNU216_PC1_02	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	100.00%	3	3	3	0.02%	3.53%	VQMTSPSSTGSPMFK	K	F	95.00%	2.72	0.264	0	1	0	0	2	1,664.71	512	526	TRUE	
SNU216_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	7	8	0.05%	12.40%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	5.39	0.358	0	0	0	1	2	3,065.37	341	365	TRUE	
SNU216_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	7	8	0.05%	12.40%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.38	0.469	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	7	8	0.05%	12.40%	QESDPEDDDVK	R	K	95.00%	3.01	0.44	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	7	8	0.05%	12.40%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.29	0.431	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	7	8	0.05%	12.40%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.5	0.432	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216_PC1_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	6	7	8	0.05%	12.40%	SLSPGKENVSALDMEK	K	E	95.00%	3.53	0.493	0	2	0	0	2	1,784.81	441	456	TRUE	
SNU216_PC1_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.51	0.36	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC1_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	K	L	95.00%	4.3	0.511	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC1_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	2.66	0.527	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	AFLAELEQNSPK	K	I	95.00%	2.94	0.335	0	1	0	0	2	1,426.66	2389	2400	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	MLSSSDAITQEFMDLR	R	T	95.00%	4	0.57	0	1	0	0	2	1,923.82	1339	1354	TRUE	
SNU216_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	QGSFSEDVISHK	K	G	95.00%	3.22	0.425	0	1	0	0	2	1,413.60	1823	1834	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	RQGSFSEDVISHK	K	G	95.00%	2.77	0.236	0	0	1	0	2	1,569.71	1822	1834	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	SLLEILNSAADILIINSSEADEDGIRDEK	R	A	95.00%	6.16	0.446	0	0	1	0	2	3,110.48	2839	2866	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	SMDAMSSPTK	K	T	95.00%	2.61	0.482	0	1	0	0	2	1,134.42	2367	2376	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_02	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	614,149.30	100.00%	7	7	7	0.04%	1.55%	SMDAMSSPTKTETVK	K	A	85.20%	2.81	0.0834	0	1	0	0	2	1,708.72	2367	2381	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_02	Calmin	IPI00101942	111,652.50	99.80%	2	2	2	0.01%	4.09%	HDEESHSLSPPGENTVMADSFQIK	R	V	95.00%	3	0.266	0	0	1	0	2	2,735.17	518	541	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Calmin	IPI00101942	111,652.50	99.80%	2	2	2	0.01%	4.09%	TSDISEPSPESSILSSR	K	K	95.00%	2.9	0.272	0	1	0	0	2	1,871.83	395	411	TRUE	
SNU216_PC1_02	WW domain-containing transcription regulator pr	IPI00180266	44,101.00	99.70%	1	1	1	0.01%	7.00%	SHSSPASLQLGTGAGAAGSPAQQHAHLR	R	Q	94.40%	6.16	0.0145	0	0	0	1	2	2,774.31	87	114	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	AHSEKDQPPFGDSDDSVEADK	R	S	95.00%	3.62	0.398	0	0	1	0	2	2,353.95	483	503	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	3.92	0.296	0	0	1	0	2	2,433.10	784	805	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	AQPFGFIDSDTDAEEER	R	I	95.00%	2.88	0.392	0	1	0	0	2	2,006.80	321	337	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	AQPFGFIDSDTDAEEERIPATPVVIPMK	R	K	95.00%	3.03	0.236	0	0	1	0	2	3,153.49	321	348	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	AQPFGFIDSDTDAEEERIPATPVVIPMKK	R	R	95.00%	3.83	0.431	0	0	1	0	2	3,281.58	321	349	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	DSDTDVEEEELPVENR	R	E	95.00%	3.7	0.515	0	1	0	0	2	1,955.78	452	467	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	GPGAPGLAHLQESQAGSDTDVEEGK	R	A	95.00%	3.3	0.438	0	1	0	0	2	2,530.11	360	384	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	GPGAPGLAHLQESQAGSDTDVEEGKAPQA	R	S	95.00%	4.85	0.368	0	0	1	1	2	3,463.64	360	393	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	LLLAEDSEEEVDFLSER	R	R	95.00%	3.72	0.427	0	1	0	0	2	2,073.93	162	178	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	SQTTTERDSDTDVEEEELPVENR	R	E	95.00%	4.12	0.0897	0	1	1	0	2	2,839.12	445	467	TRUE	
SNU216_PC1_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	11	13	13	0.08%	8.38%	SSVKTPEPVVPTAPEPHPTTSTDQPVTPK	R	L	95.00%	4.07	0.287	0	0	1	0	2	3,104.52	1604	1632	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain-containing protein 4	IPI00440727	152,216.90	100.00%	1	1	1	0.01%	2.35%	EAPSPLMIHSPQMSQFQSLTHQSPPQQNV	R	K	95.00%	4.43	0.211	0	0	0	1	2	3,677.72	1061	1092	TRUE	
SNU216_PC1_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	2	2	0.01%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	2.77	0.455	0	1	0	0	2	2,304.83	162	180	TRUE	
SNU216_PC1_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	2	2	0.01%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.1	0.47	0	1	0	0	2	1,999.83	181	198	TRUE	
SNU216_PC1_02	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	100.00%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	4.69	0.154	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216_PC1_02	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	100.00%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	R	L	95.00%	4.96	0.492	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216_PC1_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	4	0.02%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.12	0.345	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC1_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	4	0.02%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.69	0.623	0	2	0	0	2	2,188.85	552	570	TRUE	
SNU216_PC1_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	4	0.02%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.24	0.167	0	0	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC1_02	Condensin complex subunit 1	IPI00299524	157,173.30	99.70%	1	1	1	0.01%	1.36%	YQPLASTASDNDFVTPEPR	R	R	95.00%	3.75	0.436	0	1	0	0	2	2,187.96	1325	1343	TRUE	
SNU216_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	5	6	6	0.04%	2.36%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	2.62	0.288	0	1	0	0	2	1,983.92	2451	2470	TRUE	
SNU216_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	5	6	6	0.04%	2.36%	GAANASGSSPDAPAK	K	D	95.00%	3.03	0.309	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	5	6	6	0.04%	2.36%	KGAANASGSSPDAPAK	R	D	95.00%	4.39	0.454	0	1	0	0	2	1,508.67	2420	2435	TRUE	
SNU216_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	5	6	6	0.04%	2.36%	LLVRPTSSETPSAAELVSAIEELVK	R	S	85.30%	6.17	0	0	0	1	0	2	2,719.42	1894	1918	TRUE	
SNU216_PC1_02	triple functional domain	IPI00657953	346,902.60	100.00%	5	6	6	0.04%	2.36%	SSMEMEGIFNHK	R	D	95.00%	3.27	0.303	0	1	1	0	2	1,489.59	1723	1734	TRUE	
SNU216_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	7	8	0.05%	3.75%	ASESSSEEKDDYEIFVK	R	V	95.00%	3.38	0.223	0	1	0	0	2	2,042.85	1779	1795	TRUE	
SNU216_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	7	8	0.05%	3.75%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	6.43	0.582	0	1	2	0	2	2,461.21	1678	1699	TRUE	
SNU216_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	7	8	0.05%	3.75%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.64	0.285	0	0	0	1	2	3,457.49	2117	2144	TRUE	
SNU216_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	7	8	0.05%	3.75%	ESDQTLAALLSPK	K	E	95.00%	2.59	0.163	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	7	8	0.05%	3.75%	SAASPVVSSMPER	R	A	95.00%	2.56	0.492	0	1	0	0	2	1,397.61	1766	1778	TRUE	
SNU216_PC1_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	6	7	8	0.05%	3.75%	SVESTSPEPSK	K	I	95.00%	1.78	0.332	0	1	0	0	2	1,227.51	278	288	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	AQLSPGIYDDTSAR	K	R	94.80%	1.99	0.255	0	1	0	0	2	1,573.69	1469	1482	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	MPIEDSSPEK	R	G	95.00%	2.23	0.214	0	1	0	0	2	1,212.49	1190	1199	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	MPIEDSSPEKGR	R	E	95.00%	3.54	0.409	0	1	0	0	2	1,425.61	1190	1201	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	MPIEDSSPEKGREEAASK	R	G	95.00%	2.61	0.29	0	1	0	0	2	2,040.89	1190	1207	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	NDARSPGSISYLPSFFTK	R	L	95.00%	3.59	0.316	0	0	1	0	2	2,066.96	2180	2197	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	4.17	0.263	0	0	1	0	2	2,989.46	206	231	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	5.47	0.55	0	0	1	0	2	2,522.20	2140	2161	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	SPGSISYLPSFFTK	R	L	95.00%	2.85	0.347	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	9	9	9	0.06%	5.04%	SPNREWEVLQPAPHQVITNLPEGVR	K	L	95.00%	4.5	0.352	0	0	1	0	2	2,946.46	999	1023	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	4.44	0.09	0	1	0	0	2	2,897.99	1234	1256	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	IESDEEEDFENVGK	K	V	95.00%	3.42	0.407	0	2	0	0	2	1,719.66	1302	1315	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	KPDSPPKVLEPENK	K	Q	95.00%	4.48	0.472	0	1	1	0	2	1,657.82	704	717	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	KPYRIESDEEEEDFENVGK	K	V	95.00%	4.11	0.3	0	0	1	0	2	2,263.98	1298	1315	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	LSPIPEEVPK	R	S	95.00%	1.98	0.295	0	1	0	0	2	1,188.59	562	571	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	STDEYSEADEEEEEEEGKPSR	R	K	95.00%	3.74	0.528	0	2	0	0	2	2,524.94	1236	1256	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	TFLDKDAQRLSPIPEEVPK	K	S	95.00%	3.68	0.344	0	0	1	1	2	2,263.14	553	571	TRUE	
SNU216_PC1_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	8	10	14	0.09%	6.66%	VGSPLDYSLVDLPSTNGQSPGK	K	A	95.00%	2.8	0.333	0	3	0	0	2	2,311.09	1316	1337	TRUE	
SNU216_PC1_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	5	6	0.04%	3.98%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	3.54	0.488	0	2	1	0	2	2,075.92	342	359	TRUE	
SNU216_PC1_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	5	6	0.04%	3.98%	KRSPSPSPTPEAK	R	K	85.20%	1.81	0.221	0	1	0	0	2	1,621.64	300	312	TRUE	
SNU216_PC1_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	5	6	0.04%	3.98%	RSPSPSPTPEAK	K	K	95.00%	2.3	0.262	0	1	0	0	2	1,413.58	301	312	TRUE	
SNU216_PC1_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	4	5	6	0.04%	3.98%	TLTDEVNSPDSDRR	K	D	95.00%	3.54	0.372	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216_PC1_02	Talin-1	IPI00298994	271,170.80	100.00%	3	3	3	0.02%	0.94%	DHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	4.28	0.392	0	0	1	0	2	2,530.07	407	428	TRUE	
SNU216_PC1_02	Talin-1	IPI00298994	271,170.80	100.00%	3	3	3	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPK	K	K	95.00%	5.35	0.394	0	0	1	0	2	2,617.10	405	427	TRUE	
SNU216_PC1_02	Talin-1	IPI00298994	271,170.80	100.00%	3	3	3	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	3.63	0.238	0	0	0	1	2	2,745.20	405	428	TRUE	
SNU216_PC1_02	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	4	4	5	0.03%	3.13%	AQENYEGSEEVSPPQTK	R	D	95.00%	2.51	0.22	0	1	0	0	2	1,972.82	2552	2568	TRUE	
SNU216_PC1_02	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	4	4	5	0.03%	3.13%	NGILAIEGTGSDVDDDMSGDEK	R	Q	95.00%	3.11	0.265	0	1	0	0	2	2,317.94	1583	1604	TRUE	
SNU216_PC1_02	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	4	4	5	0.03%	3.13%	NGILAIEGTGSDVDDDMSGDEKQDNESNV	R	D	95.00%	3.75	0.233	0	0	1	0	2	3,472.43	1583	1614	TRUE	
SNU216_PC1_02	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	4	4	5	0.03%	3.13%	RPYTGNPQYTYNNWSPPVQSNETSNGYFL	R	S	95.00%	5.76	0.14	0	0	2	0	2	3,759.65	2429	2459	TRUE	
SNU216_PC1_02	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	GRNDSGEENVPLDLTR	R	E	95.00%	3.12	0.334	0	1	0	0	2	1,851.82	17	32	TRUE	
SNU216_PC1_02	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	3.37	0.378	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216_PC1_02	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	2	2	2	0.01%	2.69%	SKATEDGEEDEVSAGEK	K	E	95.00%	2.9	0.32	0	1	0	0	2	1,860.74	1423	1439	TRUE	
SNU216_PC1_02	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	2	2	2	0.01%	2.69%	SQNSQESTADESEDDMSSQASK	K	S	95.00%	4.62	0.185	0	1	0	0	2	2,440.89	1401	1422	TRUE	
SNU216_PC1_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	4.11	0.537	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216_PC1_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	95.00%	2.86	0.384	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216_PC1_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	4	4	0.02%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.86	0.546	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216_PC1_02	U5 small nuclear ribonucleoprotein 200 kDa helic	IPI00420014	244,513.80	100.00%	1	2	4	0.02%	0.75%	EEASDDDMEGDEAVVR	R	C	95.00%	4.09	0.595	0	3	1	0	2	1,862.66	222	237	TRUE	
SNU216_PC1_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.46	0.425	0	1	1	0	2	1,656.70	340	354	TRUE	
SNU216_PC1_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	3	3	0.02%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.34	0.388	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	ALSSAVQASPTSPGGSPSSPSSGQR	K	S	95.00%	5.47	0.0203	0	1	0	0	2	2,460.04	3500	3524	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	AQGQESDSSETSVR	K	G	95.00%	2.93	0.459	0	2	0	0	2	1,560.62	1051	1064	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	DKEGTPPLTK	K	E	89.40%	2.12	0.175	0	1	0	0	2	1,165.55	333	342	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	GPGEPDSPTPLHPPTPPILSTDR	K	S	95.00%	3.97	0.359	0	0	1	0	2	2,458.17	1831	1853	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	NDRDQHTDSTQSANSSPDEDTEVK	R	T	95.00%	5.52	0.179	0	0	1	0	2	2,836.06	2377	2400	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	SASPSVPGPTKPK	R	P	95.00%	2.29	0.341	0	1	0	0	2	1,332.66	3525	3537	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	SASPSVPGPTKPKPK	R	T	95.00%	3.37	0.368	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	SSIAGSEDAEPLAPPIKPIKPVTR	K	N	95.00%	2.47	0.294	0	0	1	0	2	2,553.33	1114	1137	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	9	10	11	0.07%	3.78%	TIAHSPTSFTESSSK	R	E	95.00%	3.5	0.232	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216_PC1_02	U3 small nucleolar ribonucleoprotein protein MPF	IPI00012149	78,866.80	99.80%	1	1	1	0.01%	4.41%	KDDNDEEEEDIDFFEDIDSDEDEGGLFGSK	R	K	95.00%	5.34	0.564	0	0	1	0	2	3,533.34	224	253	TRUE	
SNU216_PC1_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.90%	2	3	3	0.02%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	6.09	0.466	0	0	1	1	2	3,538.48	736	766	TRUE	
SNU216_PC1_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.90%	2	3	3	0.02%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	4.53	0.459	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216_PC1_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	2	3	3	0.02%	7.44%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.87	0.49	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC1_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	2	3	3	0.02%	7.44%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.28	0.305	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216_PC1_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	5.94%	EESEESEAEPVQR	R	T	95.00%	2.43	0.192	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC1_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	99.80%	2	2	2	0.01%	5.94%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.84	0.192	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC1_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	3	3	3	0.02%	3.94%	EAALPPVSPLK	R	A	95.00%	2.47	0.233	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216_PC1_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	3	3	3	0.02%	3.94%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	R	P	95.00%	4.46	0.466	0	0	1	0	2	3,174.59	306	333	TRUE	
SNU216_PC1_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	3	3	3	0.02%	3.94%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	3.79	0.194	0	0	1	0	2	2,623.30	1073	1096	TRUE	
SNU216_PC1_02	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	2	2	0.01%	3.54%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	3.99	0.329	0	0	0	1	2	2,851.43	615	639	TRUE	
SNU216_PC1_02	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	2	2	0.01%	3.54%	RESPSEERLEPK	R	R	95.00%	2.65	0.249	0	0	1	0	2	1,536.71	921	932	TRUE	
SNU216_PC1_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	2.93	0.433	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216_PC1_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	3.38	0.431	0	0	1	0	2	1,915.77	775	790	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	7	7	7	0.04%	7.79%	EPVEETTKSPSDVNISAQPALSNFISQLEPEV	R	I	95.00%	4.55	0.436	0	0	0	1	2	4,224.06	748	785	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	7	7	7	0.04%	7.79%	GGNLPPVSPNDSGAK	K	I	95.00%	3.19	0.519	0	1	0	0	2	1,489.67	659	673	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	7	7	7	0.04%	7.79%	KKSVGGDSDTEDMR	R	S	95.00%	2.35	0.424	0	1	0	0	2	1,684.63	296	309	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	7	7	7	0.04%	7.79%	LIPITGGNARSPEDQLGK	K	H	95.00%	3.51	0.46	0	1	0	0	2	1,945.97	521	538	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	7	7	7	0.04%	7.79%	SPEDQLGK	R	H	95.00%	1.93	0.333	1	0	0	0	2	953.3978	531	538	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	7	7	7	0.04%	7.79%	SSHSLDYDKDR	R	V	95.00%	2.11	0.3	0	1	0	0	2	1,402.56	274	284	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	7	7	7	0.04%	7.79%	SVGGDSDTEDMR	K	S	95.00%	1.95	0.368	0	1	0	0	2	1,348.47	298	309	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	4	0.02%	5.13%	AHLSENELEALK	R	N	95.00%	3	0.275	0	1	0	0	2	1,562.71	859	871	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	4	0.02%	5.13%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	3.68	0.263	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	4	0.02%	5.13%	GLVAAYSGESDSEEEQER	R	G	95.00%	3.84	0.421	0	1	0	0	2	2,035.81	792	809	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	4	0.02%	5.13%	HRHSPTGPPGFPR	R	D	95.00%	2.76	0.295	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216_PC1_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	99.80%	2	2	2	0.01%	3.92%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.04	0.369	0	0	0	1	2	2,581.18	462	485	TRUE	
SNU216_PC1_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	99.80%	2	2	2	0.01%	3.92%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	95.00%	5.12	0.0884	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216_PC1_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	1.63%	AQGEPVAGHESPK	R	I	95.00%	2.86	0.442	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216_PC1_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	1.63%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.66	0.559	0	1	0	0	2	2,016.94	789	806	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	99.80%	2	2	2	0.01%	6.11%	KINSSPNVNTTASGVEDLNIIQVTIPDDDNE	R	L	95.00%	3.44	0.159	0	0	1	0	2	3,548.68	786	817	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	99.80%	2	2	2	0.01%	6.11%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.27	0.348	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216_PC1_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	99.80%	1	1	1	0.01%	4.41%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	4.74	0.427	0	0	1	0	2	2,873.37	59	85	TRUE	
SNU216_PC1_02	Transcriptional activator SRCAP	IPI00009101,IPI00444046,IP	327,839.00	100.00%	2	2	2	0.01%	1.06%	NPPSPRPSQLPVLDR	K	D	95.00%	2.64	0.335	0	0	1	0	2	1,752.88	2855	2869	TRUE	
SNU216_PC1_02	Transcriptional activator SRCAP	IPI00009101,IPI00444046,IP	327,839.00	100.00%	2	2	2	0.01%	1.06%	SGPPSPPSTATSFGGPR	R	P	95.00%	2.55	0.315	0	1	0	0	2	1,679.74	1697	1713	TRUE	
SNU216_PC1_02	Nardilysin	IPI00243221,IPI00747052	139,417.50	99.60%	1	1	1	0.01%	0.82%	MSSTLLVETR	K	N	92.90%	2.14	0.213	0	0	1	0	2	1,216.56	235	244	TRUE	
SNU216_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	6	0.04%	7.87%	AGAEDDEEKGEGTPR	K	E	95.00%	3.04	0.472	0	1	0	0	2	1,640.64	150	164	TRUE	
SNU216_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	6	0.04%	7.87%	ASDLEDEESAAR	R	G	95.00%	2.56	0.4	0	1	0	0	2	1,372.53	45	56	TRUE	
SNU216_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	6	0.04%	7.87%	DSGSDQDLDGAGVRASDLEDEESAAR	R	G	95.00%	3.65	0.308	0	0	1	0	2	2,745.11	31	56	TRUE	
SNU216_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	6	0.04%	7.87%	GPSQEEEDNHSDEEDR	R	A	95.00%	4.47	0.522	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	6	0.04%	7.87%	GPSQEEEDNHSDEEDRASEPK	R	S	94.30%	3	0.157	0	0	1	0	2	2,464.94	57	77	TRUE	
SNU216_PC1_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	6	6	6	0.04%	7.87%	GPSQEEEDNHSDEEDRASEPKSQDQDSEVI	R	G	95.00%	2.7	0.371	0	0	0	1	2	4,112.52	57	90	TRUE	
SNU216_PC1_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	99.80%	2	2	2	0.01%	1.82%	AEEEHLSSSGGLAK	R	N	95.00%	2.05	0.248	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216_PC1_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	99.80%	2	2	2	0.01%	1.82%	ATSFEESER	R	K	95.00%	1.87	0.227	0	1	0	0	2	1,135.43	947	955	TRUE	
SNU216_PC1_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	21.40%	EEDEEPESPPEKK	K	T	95.00%	2.89	0.341	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC1_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	21.40%	NSQEDSEDSEDKDVK	K	T	95.00%	3.32	0.38	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC1_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	21.40%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.78	0.19	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216_PC1_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	21.40%	VVDYSQFQESDDADEDYGR	K	D	95.00%	2.75	0.285	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	7	9	9	0.06%	5.49%	GSVILDSGHLSTASSSDDLKGEEGSFR	R	G	93.90%	4.51	0.0847	0	0	1	0	2	2,831.27	88	114	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	7	9	9	0.06%	5.49%	IGDLQAAIEDEMESDENEDLINSLQDMVTK	R	Y	95.00%	4.29	0.521	0	0	1	0	2	3,445.49	1932	1961	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	7	9	9	0.06%	5.49%	NKLEGDSDVDSELEDR	K	V	95.00%	3.17	0.291	0	1	0	0	2	1,900.78	1967	1982	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	7	9	9	0.06%	5.49%	NKLEGDSDVDSELEDRVDGVK	K	S	95.00%	3.85	0.451	0	1	1	0	2	2,479.03	1967	1987	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	7	9	9	0.06%	5.49%	SLAPDRSDDEHDPLDNTSR	K	P	95.00%	3.15	0.305	0	0	1	0	2	2,219.92	2017	2035	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	7	9	9	0.06%	5.49%	SLAPDRSDDEHDPLDNTSRPR	K	Y	95.00%	2.92	0.286	0	1	0	1	2	2,473.07	2017	2037	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	7	9	9	0.06%	5.49%	YSHSYLSDSDTEAK	R	L	84.90%	2.95	0.0585	0	1	0	0	2	1,682.66	2038	2051	TRUE	
SNU216_PC1_02	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	3.69	0.434	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	4	4	4	0.02%	7.90%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	3.52	0.284	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	4	4	4	0.02%	7.90%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	4.05	0.252	0	0	1	0	2	2,359.11	279	299	TRUE	
SNU216_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	4	4	4	0.02%	7.90%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	4.54	0.476	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216_PC1_02	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	4	4	4	0.02%	7.90%	MEVDRSPGLPMSDLK	R	T	95.00%	2.75	0.139	0	1	0	0	2	1,754.79	614	628	TRUE	
SNU216_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	8.89%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7.06	0.647	0	0	1	0	2	3,607.53	769	801	TRUE	
SNU216_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	8.89%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.74	0.287	0	0	1	0	2	2,234.95	5	25	TRUE	
SNU216_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	8.89%	EIPSATQSPISK	K	K	95.00%	2.31	0.224	0	1	0	0	2	1,337.64	1156	1167	TRUE	
SNU216_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	8.89%	KGVLGKSPLSALAR	K	K	95.00%	2.6	0.392	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	8.89%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.19	0.333	0	0	1	0	2	2,300.10	1254	1275	TRUE	
SNU216_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	8.89%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.97	0.356	0	2	2	0	2	2,172.01	1255	1275	TRUE	
SNU216_PC1_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	7	8	10	0.06%	8.89%	SPAPGAPTRSPSTPAK	K	S	95.00%	3.14	0.467	0	1	0	0	2	1,601.77	1232	1247	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	3	3	0.02%	2.97%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	3.82	0.527	0	1	1	0	2	2,816.14	239	264	TRUE	
SNU216_PC1_02	WD-repeat protein 3	IPI00009471	106,102.50	99.80%	2	3	3	0.02%	2.97%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.98	0.465	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216_PC1_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	2.67	0.222	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216_PC1_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	5.3	0.428	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC1_02	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	2	0.01%	2.47%	ELEQHIQTSDPENFQSEER	R	S	95.00%	4.31	0.489	0	0	1	0	2	2,396.00	837	855	TRUE	
SNU216_PC1_02	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	2	0.01%	2.47%	LFVLLPEQSPVSYSK	R	R	95.00%	2.88	0.429	0	1	0	0	2	1,786.90	736	750	TRUE	
SNU216_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	7	0.04%	3.52%	KNSLISSLEEEVSILNR	R	Q	95.00%	4.38	0.43	0	1	1	0	2	2,011.01	1223	1239	TRUE	
SNU216_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	7	0.04%	3.52%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	3.04	0.347	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	7	0.04%	3.52%	RVSLEPHQGPGTPESK	K	K	95.00%	2.63	0.197	0	0	1	0	2	1,798.85	1989	2004	TRUE	
SNU216_PC1_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	7	0.04%	3.52%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.38	0.503	0	2	1	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC1_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	99.80%	1	1	1	0.01%	2.98%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	3.47	0.368	0	0	1	0	2	2,322.91	616	635	TRUE	
SNU216_PC1_02	Midasin	IPI00167941	632,826.30	100.00%	3	4	4	0.02%	1.05%	AEENTDQASPQEDYAGFER	K	L	95.00%	4.6	0.557	0	1	1	0	2	2,236.87	4530	4548	TRUE	
SNU216_PC1_02	Midasin	IPI00167941	632,826.30	100.00%	3	4	4	0.02%	1.05%	EDSDTEEQVPEALER	R	K	95.00%	3.12	0.482	0	1	0	0	2	1,826.73	5013	5027	TRUE	
SNU216_PC1_02	Midasin	IPI00167941	632,826.30	100.00%	3	4	4	0.02%	1.05%	MHDGELEEQEEDDEKSDSEGGDLDK	K	H	95.00%	5.44	0.608	0	0	1	0	2	2,916.09	4737	4761	TRUE	
SNU216_PC1_02	Isoform 1 of Eukaryotic translation initiation facto	IPI00163851,IPI00456685	186,842.60	98.80%	1	1	1	0.01%	1.52%	MPLVEQSPEDSGGQDYVETVIPSNR	K	L	95.00%	4.55	0.514	0	1	0	0	2	2,827.25	545	569	TRUE	
SNU216_PC1_02	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	99.30%	2	2	2	0.01%	2.10%	GRPPAEKLSPNPPK	R	L	85.90%	2.8	0.154	0	0	1	0	2	1,567.80	1369	1382	TRUE	
SNU216_PC1_02	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	99.30%	2	2	2	0.01%	2.10%	ISPIQKPQGLDPVEILQER	R	E	95.00%	3.04	0.436	0	0	1	0	2	2,240.17	328	346	TRUE	
SNU216_PC1_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.30%	1	1	1	0.01%	1.88%	RGLLYDSDEEDEERPAR	R	K	86.50%	2.7	0.145	0	0	1	0	2	2,129.91	133	149	TRUE	
SNU216_PC1_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	1	1	2	0.01%	3.81%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.25	0.462	0	0	2	0	2	3,586.35	473	502	TRUE	
SNU216_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	7	0.04%	7.51%	HSQPSPEPHSPTEPPAWGSSIVK	K	V	95.00%	3.92	0.307	0	0	2	0	2	2,532.16	728	750	TRUE	
SNU216_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	7	0.04%	7.51%	KSSTGSISNVLFSTQDPVEDAVFGEATNLKK	R	N	91.40%	6.53	0.0044	0	0	1	0	2	3,349.62	762	792	TRUE	
SNU216_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	7	0.04%	7.51%	NLADEIESYMNLKSPLGSK	R	S	95.00%	2.76	0.437	0	1	1	0	2	2,189.02	995	1013	TRUE	
SNU216_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	7	0.04%	7.51%	RSSLPLDHGSPAQENPESEK	R	S	95.00%	4.25	0.356	0	0	1	0	2	2,258.01	1040	1059	TRUE	
SNU216_PC1_02	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	5	6	7	0.04%	7.51%	SSPVPEMLEESQELLEPVVDDVPK	R	T	95.00%	4.35	0.508	0	1	0	0	2	2,746.28	889	912	TRUE	
SNU216_PC1_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	8	0.05%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.25	0.375	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC1_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	8	0.05%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.05	0.576	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC1_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	8	0.05%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4.55	0.19	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC1_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	8	0.05%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	8.24	0.657	0	0	1	3	2	3,735.89	46	80	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	ANTSGDFEKDDDAYK	K	T	95.00%	3.5	0.461	0	1	0	0	2	1,755.67	1990	2004	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	ANTSGDFEKDDDAYKTEDSDDIHFEPVVQK	K	V	86.70%	2.82	0.185	0	0	0	1	2	3,852.61	1990	2022	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	AVVSPPKFVFGSESVK	K	S	95.00%	2.96	0.441	0	0	1	0	2	1,757.89	2507	2522	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	EDALDDSVSSSSVHASPLASSPVR	R	K	95.00%	3.55	0.331	0	0	1	0	2	2,493.11	2231	2254	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	KKPEDSPSDDDVLIVYELTPTAEQK	K	A	95.00%	5.87	0.315	0	0	1	0	2	2,897.37	2621	2645	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	KQSLPATSIPTPASFK	R	F	95.00%	3.5	0.419	0	1	0	0	2	1,752.89	1507	1522	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	NADSEIKHSTPSPTR	R	Y	95.00%	2.63	0.261	0	1	0	0	2	1,719.77	770	784	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	I	93.60%	2.91	0.168	0	0	1	1	2	3,149.28	1153	1181	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	NHETDGGSAHGDDDDDGPHFEPVVPLPDI	K	T	95.00%	4.08	0.453	0	0	1	1	2	3,618.57	1153	1185	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.63	0.396	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	NRPDYVSEEEEDDEDFETAVK	K	K	95.00%	5.26	0.674	0	1	0	0	2	2,596.02	2662	2682	TRUE	
SNU216_PC1_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	15	15	0.09%	7.35%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	5.15	0.474	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216_PC1_02	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	3	0.02%	5.09%	KEDSDEEEDDDSEEDEEEDDEDEDEDEDEIEF	K	A	95.00%	6.44	0.717	0	0	3	0	2	4,199.41	119	153	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	5.31%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.71	0.581	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	5.31%	TEDGGWEWSDDEFDEESEEGKAAISQLR	K	S	95.00%	4.99	0.435	0	0	1	0	2	3,295.32	331	358	TRUE	
SNU216_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	6	9	0.06%	7.22%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	3.15	0.292	0	3	1	0	2	2,392.99	538	560	TRUE	
SNU216_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	6	9	0.06%	7.22%	LSASTASELSPK	R	S	95.00%	2.61	0.324	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	6	9	0.06%	7.22%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.15	0.331	0	2	1	0	2	1,989.93	111	129	TRUE	
SNU216_PC1_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	6	9	0.06%	7.22%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.36	0.35	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC1_02	UNC93 homolog B1	IPI00008490	66,633.10	100.00%	2	3	6	0.04%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.72	0.652	0	0	2	0	2	3,332.21	541	570	TRUE	
SNU216_PC1_02	UNC93 homolog B1	IPI00008490	66,633.10	100.00%	2	3	6	0.04%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	4.87	0.306	0	0	1	3	2	4,183.73	541	580	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	ESKGSPVFLPR	K	K	95.00%	2.42	0.303	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	95.00%	3.27	0.307	0	0	1	0	2	2,545.18	1069	1093	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	4.34	0.446	0	0	2	0	2	2,891.35	664	689	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.82	0.43	0	0	2	0	2	2,300.18	381	401	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	3.78	0.445	0	0	1	0	2	2,673.28	1068	1093	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	LYNSEESRPYTNK	R	V	95.00%	2.53	0.17	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	NSSPAPPQPAPGK	K	V	95.00%	2.76	0.445	0	1	0	0	2	1,327.60	1081	1093	TRUE	
SNU216_PC1_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	8	8	11	0.07%	7.79%	RQSVSPPYKEPSAYQSSTR	R	S	95.00%	3.41	0.323	0	0	2	0	2	2,328.01	272	290	TRUE	
SNU216_PC1_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	2	2	0.01%	5.82%	EPTPSIASDISLPIATQELR	K	Q	95.00%	2.87	0.41	0	1	0	0	2	2,218.10	723	742	TRUE	
SNU216_PC1_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	2	2	0.01%	5.82%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	6	0.0448	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216_PC1_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.73%	DKSDSPAIQLR	R	L	92.60%	2.07	0.191	0	1	0	0	2	1,309.62	936	946	TRUE	
SNU216_PC1_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.73%	GDLSDVEEEEEEEEMDVDEATGAVK	R	K	95.00%	5.05	0.439	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216_PC1_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.73%	GDLSDVEEEEEEEEMDVDEATGAVKK	R	H	95.00%	5.08	0.445	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216_PC1_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	4	6	6	0.04%	5.73%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	5.59	0.0557	0	0	1	0	2	4,089.02	277	313	TRUE	
SNU216_PC1_02	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	1	1	1	0.01%	0.63%	LTAGVPDTPTR	R	L	95.00%	2.52	0.165	0	1	0	0	2	1,207.57	1453	1463	TRUE	
SNU216_PC1_02	Isoform 1 of Dynamin-binding protein	IPI00174025	177,350.00	99.80%	1	1	1	0.01%	1.46%	SHSDASVGSHSSTESEHGSSSPR	R	F	95.00%	2.91	0.38	0	0	0	1	2	2,391.94	1351	1373	TRUE	
SNU216_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	5	5	6	0.04%	4.24%	AASSPSNPAALPVASDSSPMGSK	K	T	95.00%	3.92	0.367	0	2	0	0	2	2,208.98	1056	1078	TRUE	
SNU216_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	5	5	6	0.04%	4.24%	DFSPGLFEDPSVAFATPDPK	K	K	95.00%	3.56	0.396	0	1	0	0	2	2,216.98	632	651	TRUE	
SNU216_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	5	5	6	0.04%	4.24%	ETDSPSTPGKDQR	K	S	95.00%	2.81	0.333	0	1	0	0	2	1,497.62	1081	1093	TRUE	
SNU216_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	5	5	6	0.04%	4.24%	GAGGSPVGVEEGLVNVGTGQK	K	L	95.00%	3.62	0.536	0	1	0	0	2	1,991.94	1321	1341	TRUE	
SNU216_PC1_02	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	5	5	6	0.04%	4.24%	TKETDSPSTPGKDQR	K	S	94.80%	2.19	0.209	0	1	0	0	2	1,806.73	1079	1093	TRUE	
SNU216_PC1_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.3	0.236	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216_PC1_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	SSDGSLSHEEDLAK	R	V	95.00%	2.56	0.327	0	1	0	0	2	1,554.63	238	251	TRUE	
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	DASLHGLSQYNSL	R	-	95.00%	2.7	0.358	0	1	0	0	2	1,484.64	1593	1605	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	DHAPSIPTSPFGDSLESSTELR	R	R	95.00%	3.58	0.492	0	0	1	0	2	2,423.08	249	270	TRUE	
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	EDVTPPLSPDDLK	K	Y	95.00%	2.37	0.362	0	2	0	0	2	1,585.64	1049	1061	TRUE	
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	EGPVGGESDSEEMFEK	R	T	95.00%	3.34	0.436	0	1	0	0	2	1,806.68	404	419	TRUE	
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	GLPSTSSKEDVTPPLSPDDLK	K	Y	95.00%	3.07	0.344	0	1	0	0	2	2,343.04	1041	1061	TRUE	
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	REGPVGGESDSEEMFEK	K	T	95.00%	4.12	0.421	0	1	1	0	2	1,962.78	403	419	TRUE	
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	SLYGDVDSPLPTGEAGGPPSTR	K	E	95.00%	4.63	0.559	0	1	0	0	2	2,253.01	177	198	TRUE	
SNU216_PC1_02	KIAA0802 protein	IPI00411635	179,577.30	100.00%	8	9	10	0.06%	8.10%	WAPHSPTASQPQSPGDPTSLEEHGGEEPPE	R	D	88.00%	5.52	0.0186	0	0	0	1	2	3,958.63	1558	1592	TRUE	
SNU216_PC1_02	Absent in melanoma 1 protein	IPI00294840	188,677.20	99.80%	2	2	2	0.01%	2.26%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	3.72	0.0713	0	1	0	0	2	2,157.95	64	85	TRUE	
SNU216_PC1_02	Absent in melanoma 1 protein	IPI00294840	188,677.20	99.80%	2	2	2	0.01%	2.26%	STDSPGADAELPESAAR	K	D	95.00%	3.71	0.512	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216_PC1_02	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	1	1	1	0.01%	0.85%	EENPESDGEPVVEDGTSVK	K	T	95.00%	3.88	0.4	0	1	0	0	2	2,096.85	261	279	TRUE	
SNU216_PC1_02	Hypothetical protein LEO1	IPI00103090	75,405.30	99.80%	2	2	2	0.01%	4.65%	AQGSDEDKLQNSDDDEK	R	M	95.00%	2.44	0.264	0	1	0	0	2	2,053.73	168	184	TRUE	
SNU216_PC1_02	Hypothetical protein LEO1	IPI00103090	75,405.30	99.80%	2	2	2	0.01%	4.65%	KLTSDEEGEPSGKR	K	K	95.00%	2.73	0.255	0	0	1	0	2	1,612.72	627	640	TRUE	
SNU216_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	6	0.04%	1.45%	KHSPSPPPPTPTESR	R	K	95.00%	3.37	0.482	0	2	3	0	2	1,774.76	326	340	TRUE	
SNU216_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	6	0.04%	1.45%	RKHSPSPPPPTPTESR	K	K	95.00%	3.53	0.324	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.24%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.09	0.249	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.24%	ARHDTPDPSPLR	R	G	93.00%	2.05	0.203	0	1	0	0	2	1,521.62	155	166	TRUE	
SNU216_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.24%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.56	0.416	0	1	0	0	2	1,861.85	269	284	TRUE	
SNU216_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.24%	HDSPDPSPPR	R	R	95.00%	1.72	0.268	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216_PC1_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	8.24%	YEYDPDISPPR	K	K	95.00%	2.34	0.308	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216_PC1_02	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	HPEPVPEEGSEDELPPQVHKV	R	-	95.00%	4.37	0.384	0	0	2	0	2	2,429.10	819	839	TRUE	
SNU216_PC1_02	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	LEASYSDSPPGEEDLLVHVAEGSK	R	S	95.00%	3.38	0.244	0	0	1	0	2	2,609.17	11	34	TRUE	
SNU216_PC1_02	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	RESDESGESAPDEGGEGAR	R	A	95.00%	4.25	0.555	0	1	0	0	2	2,014.76	733	751	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	AAFGISDSYVDGSSFDPQR	R	R	95.00%	3.35	0.351	0	1	0	0	2	2,098.88	137	155	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	AGMSSNQSISSPVLDAVPR	K	T	95.00%	3.41	0.493	0	3	0	0	2	1,995.92	1394	1412	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	AGMSSNQSISSPVLDAVPRTPSR	K	E	95.00%	5.21	0.387	0	0	1	0	2	2,437.15	1394	1416	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	AGMSSNQSISSPVLDAVPRTPSRER	K	S	85.90%	3.3	0.123	0	0	1	0	2	2,802.26	1394	1418	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	DKFSPFPVQDRPESSLVFK	K	D	82.50%	2.11	0.19	0	1	0	0	2	2,303.11	1185	1203	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.71	0.443	0	0	4	0	2	2,259.04	1316	1334	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	ENSFGSPLEFR	R	N	95.00%	2.56	0.474	0	2	0	0	2	1,362.57	1324	1334	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	EQNSALPTSSQDEELMEVVEK	K	S	95.00%	4.21	0.456	0	1	1	0	2	2,443.06	1224	1244	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	FQSDSSSYPTVDSNSLLGQSR	R	L	91.90%	3.82	0.0075	0	1	0	0	2	2,355.01	1138	1158	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	4.95	0.0278	0	2	0	0	2	2,715.18	304	329	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	GPSPEGSSSTESSPEHPPK	R	S	83.00%	3.27	0.0264	0	2	0	0	2	1,973.81	1646	1664	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	GRSPSPKPR	R	G	95.00%	1.77	0.303	0	1	0	0	2	1,141.49	1760	1768	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.73	0.399	0	4	2	0	2	1,976.90	433	451	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	3.84	0.4	0	0	1	0	2	2,932.38	374	401	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	MALPPQEDATASPPR	K	Q	95.00%	2.92	0.453	0	5	1	0	2	1,660.74	1168	1182	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	MALPPQEDATASPPRQK	K	D	95.00%	2.65	0.291	0	0	1	0	2	1,916.89	1168	1184	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	NHSGSRTPPVALNSSR	R	M	95.00%	2.4	0.331	0	3	1	0	2	1,839.79	2098	2113	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	PSMSPTPLDR	R	C	91.80%	1.8	0.231	0	1	0	0	2	1,180.51	2120	2129	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	QGSITSPQANEQSVTPQR	R	R	95.00%	3.84	0.475	0	3	0	0	2	2,007.91	852	869	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	QGSITSPQANEQSVTPQRR	R	S	95.00%	2.64	0.301	0	1	1	0	2	2,164.01	852	870	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	QPSSPYEDKDK	K	D	95.00%	2.44	0.338	0	1	0	0	2	1,373.56	330	340	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	QPSSPYEDKDKDK	K	K	95.00%	3.16	0.466	0	1	1	0	2	1,616.68	330	342	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	QSHSESPSLQSK	R	S	95.00%	2.97	0.0949	0	1	0	0	2	1,394.59	1078	1089	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	RGEGDAPFSEPGTTSTQRPSSPETATK	R	Q	82.10%	3.76	-0.0039	0	1	0	0	2	2,871.28	303	329	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	RSPSVSSPEPAEK	R	S	95.00%	2.66	0.239	0	2	0	0	2	1,530.62	1726	1738	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	RVPSPTPAPK	K	E	95.00%	2.35	0.207	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SATRPSPSPER	K	S	95.00%	2.87	0.313	0	0	1	0	2	1,264.57	346	356	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SGSSQELDVKPSASPQER	R	S	95.00%	3.29	0.347	0	3	2	0	2	2,061.85	1539	1556	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SLSYSPVER	R	R	95.00%	2.12	0.286	0	2	0	0	2	1,117.49	2690	2698	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SPGMLEPLGSSR	R	T	95.00%	2.04	0.378	0	1	0	0	2	1,310.58	2132	2143	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SPSSPELNNK	R	C	95.00%	2.59	0.356	0	1	0	0	2	1,152.49	1499	1508	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SPVPSAFSDQSR	R	C	95.00%	2.23	0.315	0	1	0	0	2	1,357.58	2449	2460	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SRSPSSPELNNK	R	C	95.00%	2.72	0.336	0	3	0	0	2	1,395.63	1497	1508	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SRSSSPVTELASR	R	S	95.00%	3.23	0.297	0	2	0	0	2	1,456.68	1099	1111	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SRTSPAPWK	R	R	95.00%	2.17	0.176	0	1	0	0	2	1,109.51	1854	1862	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SSGHSSSELSPDAVEK	R	A	95.00%	3.59	0.37	0	4	0	0	2	1,696.71	1378	1393	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SSSPVTELASR	R	S	95.00%	2	0.361	0	2	0	0	2	1,293.51	1101	1111	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SSTGPEPPAPTPLLAER	R	H	95.00%	2.44	0.262	0	1	0	0	2	1,799.86	357	373	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	SSTPPGESYFGVSSLQLK	K	G	85.70%	3.46	0.0153	0	1	0	0	2	1,963.91	1041	1058	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	THTTALAGRSPSPASGR	K	R	95.00%	2.61	0.287	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	TPAAAAAMNLASPR	R	T	95.00%	4.25	0.517	0	1	0	0	2	1,421.66	2261	2274	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	TPPVALNSSR	R	M	95.00%	1.96	0.393	0	1	0	0	2	1,121.54	2104	2113	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	TPQAPASANLVGPR	R	S	95.00%	2.88	0.383	0	1	0	0	2	1,458.71	2329	2342	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	TSPAPWK	R	R	93.70%	1.47	0.299	0	1	0	0	2	866.3809	1856	1862	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	TVARTPLGQR	K	S	95.00%	2.22	0.204	0	1	0	0	2	1,178.60	1527	1536	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	VKAQTPPGPSLSGSK	K	S	95.00%	3.67	0.384	0	1	1	0	2	1,533.77	999	1013	TRUE	
SNU216_PC1_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	47	55	87	0.53%	20.10%	VPSPTPAPK	R	E	95.00%	1.43	0.309	1	0	0	0	2	973.4756	2579	2587	TRUE	
SNU216_PC1_02	Isoform 1 of Transformation/transcription domain	IPI00069084,IPI00394732	434,399.80	99.80%	1	1	1	0.01%	0.73%	ERENSESKEEDVEIDIELAPGDQTSTPK	R	T	95.00%	4.31	0.397	0	0	1	0	2	3,225.43	2530	2557	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	AEEEEASTEEEDKEGAVVSAPSVK	R	G	95.00%	3.89	0.393	0	0	1	0	2	2,680.08	682	705	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	6.42	0.591	0	0	1	1	2	3,418.61	1323	1355	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	AQKEEEEEEEGSPQEEEEEEEENR	R	A	95.00%	4.47	0.513	0	0	1	0	2	3,130.17	657	681	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	ELSPEGPGK	R	E	95.00%	1.66	0.31	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	GSTPYKGDDEGIFISR	K	V	95.00%	2.54	0.374	0	1	0	0	2	1,821.81	747	762	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.69	0.506	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	95.00%	7.11	0.0307	0	0	2	1	2	4,094.96	1536	1574	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	LPLLPPESPGPLR	R	Q	95.00%	2.31	0.461	0	2	0	0	2	1,465.78	846	858	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	LSPDFAEELR	R	S	95.00%	1.88	0.334	0	1	0	0	2	1,256.56	1565	1574	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	3.78	0.366	0	1	1	0	2	2,609.20	816	837	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	QSPASPPPLGGGAPVR	R	T	95.00%	2.19	0.288	0	1	0	0	2	1,567.76	1444	1459	TRUE	
SNU216_PC1_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	12	15	17	0.10%	14.20%	SLEELLLDANQLR	R	E	95.00%	2.81	0.464	0	1	0	0	2	1,593.79	37	49	TRUE	
SNU216_PC1_02	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.80%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLK	K	E	95.00%	4.19	0.402	0	1	0	0	2	2,126.01	629	646	TRUE	
SNU216_PC1_02	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	99.80%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLKEEEDYKEENNDSK	K	E	95.00%	6.79	0.461	0	0	1	1	2	3,735.64	629	659	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	ASAVSELSPR	R	E	85.70%	2.02	0.163	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	ASESSKPWPDATYGTGSASR	K	A	91.40%	3.46	0.0382	0	1	0	0	2	2,134.91	216	235	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	ERSPALKSPLQSVVVR	R	R	95.00%	2.79	0.428	0	2	2	0	2	1,925.96	246	261	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	FSGEEGEIEDDESGTENR	K	E	95.00%	3.56	0.499	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	HGLAHDEMKSPR	K	E	95.00%	2.4	0.294	0	0	1	0	2	1,457.64	689	700	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	IDISPSTFR	R	K	95.00%	1.99	0.28	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	MDSFDEDLAR	R	P	95.00%	1.95	0.225	0	1	0	0	2	1,278.47	573	582	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	RIDISPSTFRK	R	H	85.40%	2.03	0.198	0	0	1	0	2	1,399.71	678	688	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	SPSELFAQHVTIVHHVK	R	E	95.00%	3.01	0.322	0	0	1	0	2	2,122.08	622	639	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.08	0.341	0	2	1	0	2	1,931.87	315	333	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	5.56	0.539	0	0	2	0	2	2,717.06	922	944	TRUE	
SNU216_PC1_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	12	15	19	0.12%	14.90%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	4.48	0.383	0	0	1	1	2	3,103.24	922	947	TRUE	
SNU216_PC1_02	Fatty acid synthase	IPI00026781,IPI00645907	273,427.10	100.00%	1	1	1	0.01%	1.19%	LNSVQSSERPLFLVHPIEGSTTVFHSLASR	R	L	95.00%	4.13	0.363	0	0	0	1	2	3,388.71	2234	2263	TRUE	
SNU216_PC1_02	Rac GTPase activating protein	IPI00334294	190,968.80	99.80%	2	2	2	0.01%	2.07%	NSMPTVSFLDQDQSPPR	K	F	95.00%	2.86	0.132	0	1	0	0	2	1,998.86	841	857	TRUE	
SNU216_PC1_02	Rac GTPase activating protein	IPI00334294	190,968.80	99.80%	2	2	2	0.01%	2.07%	SAKSEESLTSLHAVDGDSK	R	L	95.00%	3.62	0.0533	0	0	1	0	2	2,040.91	354	372	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	1	1	1	0.01%	0.58%	KMSQPGSPSPK	K	T	95.00%	2.7	0.396	0	1	0	0	2	1,303.52	1557	1567	TRUE	
SNU216_PC1_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	3	3	3	0.02%	20.70%	DDGVFVQEVTQNSPAAR	K	T	95.00%	4.03	0.48	0	1	0	0	2	1,912.84	30	46	TRUE	
SNU216_PC1_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	3	3	3	0.02%	20.70%	KGDRSPEPGQTWTR	R	E	95.00%	3.79	0.371	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC1_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	3	3	3	0.02%	20.70%	SPEPGQTWTR	R	E	95.00%	2.23	0.28	0	1	0	0	2	1,238.52	94	103	TRUE	
SNU216_PC1_02	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	100.00%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGSSASGLAK	K	V	95.00%	4.7	0.167	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	GPKPEPPGSGSPAPPR	R	R	95.00%	2.82	0.175	0	1	0	0	2	1,687.72	730	745	TRUE	
SNU216_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	GPKPEPPGSGSPAPPRR	R	R	95.00%	3.53	0.383	0	0	1	0	2	1,763.86	730	746	TRUE	
SNU216_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	KPSVSEEVQATPNK	R	A	95.00%	4.86	0.59	0	2	0	0	2	1,593.75	1105	1118	TRUE	
SNU216_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	QEPGGSHGSETEDTGR	K	S	95.00%	2.07	0.413	0	1	0	0	2	1,723.66	645	660	TRUE	
SNU216_PC1_02	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	5	5	6	0.04%	3.79%	SWGHESPEER	R	H	95.00%	2.08	0.216	0	1	0	0	2	1,293.49	1009	1018	TRUE	
SNU216_PC1_02	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	3	3	3	0.02%	3.61%	AAQQQQPSASPR	R	A	92.40%	2.47	0.151	0	1	0	0	2	1,348.60	1444	1455	TRUE	
SNU216_PC1_02	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	3	3	3	0.02%	3.61%	RATSPSSSVSGDFDDGHHSVSTPGPSR	R	K	84.40%	5.43	0.0151	0	0	0	1	2	2,807.20	7	33	TRUE	
SNU216_PC1_02	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	3	3	3	0.02%	3.61%	YIEGLSAESNSISKWDQTLAAR	K	R	95.00%	3.13	0.187	0	0	1	0	2	2,599.15	1613	1634	TRUE	
SNU216_PC1_02	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	6	6	0.04%	1.91%	KQSVFSAPSLSAGASAAEPLDR	R	S	95.00%	3.94	0.487	0	1	1	0	2	2,269.09	932	953	TRUE	
SNU216_PC1_02	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	6	6	0.04%	1.91%	RSIQGVGHMMSTMVLSR	R	K	95.00%	3.41	0.4	0	0	1	0	2	1,969.92	915	931	TRUE	
SNU216_PC1_02	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	6	6	0.04%	1.91%	SIQGVGHMMSTMVLSR	R	K	95.00%	3.73	0.505	0	1	1	0	2	1,813.82	916	931	TRUE	
SNU216_PC1_02	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	4	6	6	0.04%	1.91%	VASFSIPGSSSR	R	Y	95.00%	2.15	0.327	0	1	0	0	2	1,274.58	1830	1841	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	AGSSTPGDAPPAVAEVQGR	R	S	95.00%	3.63	0.595	0	2	0	0	2	1,846.83	2876	2894	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	DGGSGNSTIIVSR	R	S	95.00%	2.7	0.461	0	2	0	0	2	1,342.60	2350	2362	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	DLSMSEEDQMMR	R	A	95.00%	2.95	0.433	0	2	0	0	2	1,551.55	1357	1368	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	ESQLAHIKDEPPPLSPAPLTPATPSSLDPFFSF	R	E	95.00%	5.41	0.276	0	0	1	0	2	3,622.78	3896	3928	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	GSGTASDDEFENLR	R	I	95.00%	3.52	0.541	0	2	0	0	2	1,577.61	1893	1906	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	LGSSGLGSASSIQAAVR	R	Q	95.00%	3.4	0.122	0	1	0	0	2	1,640.80	3741	3757	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	LLGPSAAADILQLSSSLPLQSR	R	G	95.00%	3.22	0.363	0	0	1	0	2	2,317.22	2571	2592	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	5.99	0.107	0	0	2	0	2	3,447.39	3796	3826	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	RRSSDPLGDTASNLGSAVDELMR	R	H	95.00%	5.59	0.561	0	0	1	0	2	2,527.16	646	668	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	RSSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.58	0.549	0	1	1	0	2	2,371.06	647	668	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	SDGSGESAQPPEDSSPPASSESSSTR	R	D	95.00%	4.53	0.0282	0	1	0	0	2	2,616.02	2895	2920	TRUE	
SNU216_PC1_02	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	12	13	18	0.11%	5.19%	SHHAASTTTAPTPAAR	R	S	95.00%	2.95	0.45	0	1	0	0	2	1,656.75	1075	1090	TRUE	
SNU216_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	5	7	0.04%	2.10%	AAMYDIISSPSK	K	D	87.90%	2.54	0.104	0	1	0	0	2	1,362.60	342	353	TRUE	
SNU216_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	5	7	0.04%	2.10%	AAMYDIISSPSKDSTK	K	L	95.00%	3.91	0.031	0	1	0	0	2	1,793.80	342	357	TRUE	
SNU216_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	5	7	0.04%	2.10%	AITSLLGGGSPK	K	N	95.00%	2.41	0.221	0	1	0	0	2	1,180.60	2649	2660	TRUE	
SNU216_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	5	7	0.04%	2.10%	DVPPDILLDSPERK	R	Q	95.00%	2.69	0.312	0	1	0	0	2	1,673.82	309	322	TRUE	
SNU216_PC1_02	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	5	5	7	0.04%	2.10%	NNTAAETEDDESDGEDR	K	G	95.00%	3.62	0.602	0	3	0	0	2	1,947.67	2661	2677	TRUE	
SNU216_PC1_02	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	3	3	3	0.02%	6.85%	NISAGSLGSLLGHHHGQGAESDPHVTEPLN	R	L	95.00%	3.46	0.235	0	0	0	1	2	3,824.78	427	463	TRUE	
SNU216_PC1_02	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	3	3	3	0.02%	6.85%	RRPGASPTGETPTIEEGEEDEDEASEAEGAR	R	A	95.00%	4.43	0.386	0	0	0	1	2	3,352.41	94	124	TRUE	
SNU216_PC1_02	Isoform A of Anion exchange protein 2	IPI00383597,IPI00477139	135,608.80	100.00%	3	3	3	0.02%	6.85%	TSPSSPAPLPHQEATPR	R	A	95.00%	3.06	0.556	0	1	0	0	2	1,852.86	155	171	TRUE	
SNU216_PC1_02	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	3.97	0.44	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216_PC1_02	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.81	0.492	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC1_02	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	2.95	0.277	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC1_02	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	1	1	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	2.86	0.464	0	1	0	0	2	1,885.77	117	134	TRUE	
SNU216_PC1_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	99.80%	1	1	1	0.01%	2.05%	LDQPVSAPPSPR	K	D	95.00%	2.46	0.155	0	1	0	0	2	1,423.60	235	246	TRUE	
SNU216_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	1	1	1	0.01%	1.95%	TTIPHALLTWRPNSGETAPPPPSPVSEKPLDT	K	S	95.00%	4.5	0.428	0	0	0	1	2	3,943.00	1533	1568	TRUE	
SNU216_PC1_02	Isoform 1 of Putative helicase MOV-10	IPI00444452,IPI00646886	113,675.50	99.80%	1	1	1	0.01%	1.79%	LSPSTSGPHSHDYLPQER	K	E	95.00%	3.21	0.311	0	0	1	0	2	2,087.92	968	985	TRUE	
SNU216_PC1_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	6	0.04%	4.53%	ESVSPEDSEK	K	K	95.00%	1.77	0.217	1	0	0	0	2	1,186.45	365	374	TRUE	
SNU216_PC1_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	6	0.04%	4.53%	IIYDSDSESEETLQVK	R	N	95.00%	4.2	0.0922	0	1	0	0	2	1,935.85	65	80	TRUE	
SNU216_PC1_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	6	0.04%	4.53%	KESVSPEDSEK	K	K	95.00%	2.88	0.246	0	1	0	0	2	1,314.55	364	374	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	4	5	6	0.04%	4.53%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	2.54	0.316	0	0	2	1	2	2,798.45	152	176	TRUE	
SNU216_PC1_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	5.16	0.36	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216_PC1_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	TTQSMQDFPVVDSEEEAEEEFQK	R	E	95.00%	4.04	0.399	0	0	1	0	2	2,783.13	198	220	TRUE	
SNU216_PC1_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.93	0.341	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC1_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SSPQLDPLR	R	K	95.00%	2.01	0.331	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC1_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SSPQLDPLRK	R	S	88.50%	1.87	0.203	0	1	0	0	2	1,220.60	182	191	TRUE	
SNU216_PC1_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.02%	7.13%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.8	0.157	0	0	0	1	2	3,571.71	182	214	TRUE	
SNU216_PC1_02	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	2	2	3	0.02%	1.12%	SVPVNNLPERSPTDSPR	K	E	95.00%	3.34	0.285	0	0	2	0	2	1,944.92	3165	3181	TRUE	
SNU216_PC1_02	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	2	2	3	0.02%	1.12%	VAQRSPVDSGTILREPTTK	K	S	95.00%	4.88	0.493	0	0	1	0	2	2,135.09	3146	3164	TRUE	
SNU216_PC1_02	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	3	5	0.03%	5.10%	NIMTQQKDSFEMEEVQSTEGEAPHVPATY(	R	S	95.00%	6.74	0.594	0	0	1	0	2	4,016.83	458	492	TRUE	
SNU216_PC1_02	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	3	5	0.03%	5.10%	SQSLPTTLLSPVR	R	V	95.00%	3.08	0.469	0	3	0	0	2	1,558.73	737	749	TRUE	
SNU216_PC1_02	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	3	3	5	0.03%	5.10%	TPLGASLDEQSSSTLK	R	G	95.00%	3.31	0.417	0	1	0	0	2	1,713.79	87	102	TRUE	
SNU216_PC1_02	Isoform C1 of Heterogeneous nuclear ribonucleoj	IPI00216592	32,338.00	100.00%	2	3	3	0.02%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.33	0.261	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC1_02	Isoform C1 of Heterogeneous nuclear ribonucleoj	IPI00216592	32,338.00	100.00%	2	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	8.26	0.553	0	0	1	1	2	4,277.68	238	275	TRUE	
SNU216_PC1_02	Nucleolar protein 9	IPI00002902	79,324.90	99.80%	1	1	1	0.01%	3.56%	LAAFADALEFADEEKESPVEFTGHK	R	L	95.00%	3.57	0.312	0	0	1	0	2	2,831.28	471	495	TRUE	
SNU216_PC1_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	4	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.96	0.463	0	2	0	0	2	1,796.71	490	504	TRUE	
SNU216_PC1_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	4	0.02%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	2.46	0.248	0	1	1	0	2	2,161.82	488	504	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	DGSLEDDEDEEDDLDEGVGGK	K	R	95.00%	3.81	0.545	0	1	0	0	2	2,317.84	1630	1650	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	EDPQARPLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	6.25	0.522	0	0	1	1	2	3,121.35	1851	1879	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	KNSSTDQGSDEEGSLQK	R	E	95.00%	3.36	0.24	0	1	0	0	2	1,889.78	1081	1097	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	NSSTDQGSDEEGSLQK	K	E	95.00%	3.09	0.343	0	1	0	0	2	1,761.68	1082	1097	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	NSSTDQGSDEEGSLQKEQESAMDK	K	H	95.00%	4.27	0.139	0	0	1	0	2	2,680.06	1082	1105	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	PLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	6.45	0.597	0	0	1	0	2	2,425.03	1857	1879	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	RASWASENGETDAEGTQMTPAK	R	R	84.00%	2.07	0.182	0	1	0	0	2	2,496.97	1884	1905	TRUE	
SNU216_PC1_02	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	9	9	0.06%	6.21%	TSQPPVPQGEAEEEDSQGKEGPSGSGDSQLS	K	S	95.00%	2.7	0.257	0	0	1	0	2	3,466.49	746	779	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	5	5	0.03%	2.44%	HLQQGSESPMMIGELR	R	S	95.00%	2.75	0.245	0	0	1	0	2	1,892.84	2597	2612	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	5	5	0.03%	2.44%	TISAQDTLAYATALLNEK	R	E	95.00%	4.52	0.458	0	1	1	0	2	2,002.97	2559	2576	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	5	5	0.03%	2.44%	TLLSESSSQSSKSPSLSSK	K	Q	95.00%	3.87	0.0691	0	1	0	0	2	2,019.95	1129	1147	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	4	5	5	0.03%	2.44%	VSDQNSPVLPK	R	K	95.00%	2.97	0.329	0	1	0	0	2	1,263.60	2042	2052	TRUE	
SNU216_PC1_02	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	1	1	1	0.01%	0.55%	SPILEEKDIPPLEFPK	R	S	95.00%	3.61	0.487	0	1	0	0	2	1,931.98	216	231	TRUE	
SNU216_PC1_02	BTB (POZ) domain containing 12	IPI00291796,IPI00412364	125,883.90	99.90%	2	2	2	0.01%	1.69%	FLLGPPQGGSPR	R	G	95.00%	2.49	0.22	0	1	0	0	2	1,305.64	352	363	TRUE	
SNU216_PC1_02	BTB (POZ) domain containing 12	IPI00291796,IPI00412364	125,883.90	99.90%	2	2	2	0.01%	1.69%	GGTSQVGSPTLLSPAVPSK	R	Q	95.00%	2.48	0.234	0	1	0	0	2	1,862.93	380	398	TRUE	
SNU216_PC1_02	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	2	2	2	0.01%	2.44%	KSAVSPSTFNTSIPTNAVSVVSSVDSAQASD	K	S	95.00%	7	0.0524	0	0	1	0	2	3,991.82	1732	1771	TRUE	
SNU216_PC1_02	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	2	2	2	0.01%	2.44%	VEGSPTEEANLPTELQDNSLSPAASEAGEK	K	L	95.00%	3.7	0.335	0	0	1	0	2	3,150.40	1115	1144	TRUE	
SNU216_PC1_02	Cytoskeleton-associated protein 5	IPI00028275,IPI00472887	225,515.80	100.00%	1	1	1	0.01%	1.38%	HSTSGTDEGEDGDEPDDGSNDVVDLLPR	K	T	90.30%	5.5	0.034	0	0	1	0	2	3,008.19	827	854	TRUE	
SNU216_PC1_02	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	99.80%	1	1	1	0.01%	5.91%	SLEPAENVHGAGGGAFPASQTPSKPASADC	R	G	95.00%	3.9	0.478	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216_PC1_02	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	2	0.01%	2.01%	EGDELEDNGKNFYESDDDQKEK	K	T	95.00%	3	0.236	0	0	1	0	2	2,684.05	262	283	TRUE	
SNU216_PC1_02	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	2	0.01%	2.01%	NFYESDDDQKEK	K	T	95.00%	2.38	0.339	0	0	1	0	2	1,597.61	272	283	TRUE	
SNU216_PC1_02	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	3	3	0.02%	2.27%	EKQEEEVDYESEEEEER	K	E	95.00%	3.04	0.294	0	0	1	0	2	2,265.86	1419	1435	TRUE	
SNU216_PC1_02	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	3	3	0.02%	2.27%	LPEEVATPTTDEEKDSLIAIDR	K	S	95.00%	4.04	0.405	0	0	1	0	2	2,522.19	351	372	TRUE	
SNU216_PC1_02	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	3	3	3	0.02%	2.27%	QEEEVDYESEEEEER	K	E	95.00%	3.04	0.318	0	1	0	0	2	2,008.72	1421	1435	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	3	5	5	0.03%	2.33%	AVIVSSPK	K	A	95.00%	1.82	0.22	1	1	0	0	2	880.454	1396	1403	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	3	5	5	0.03%	2.33%	HLEAADKGHSPAQKPK	K	T	95.00%	4.62	0.548	0	1	1	0	2	1,793.87	596	611	TRUE	
SNU216_PC1_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	3	5	5	0.03%	2.33%	IDLPEVQIEHDPELEKESPGLK	K	N	95.00%	4.52	0.33	0	0	1	0	2	2,595.26	1083	1104	TRUE	
SNU216_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	8	8	0.05%	4.43%	ERGSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.86	0.579	0	0	1	0	2	3,198.54	273	302	TRUE	
SNU216_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	8	8	0.05%	4.43%	GQSQLSNPTDDSWK	R	G	95.00%	3.08	0.438	0	1	0	0	2	1,642.67	1523	1536	TRUE	
SNU216_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	8	8	0.05%	4.43%	GSSLSGTDDGAQEVVKDILEDVVTSAIK	K	E	95.00%	5.38	0.528	0	1	1	1	2	2,913.40	275	302	TRUE	
SNU216_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	8	8	0.05%	4.43%	HLDVDLDRQSLSSIDKNPSER	K	G	95.00%	3.44	0.368	0	0	1	1	2	2,504.18	1502	1522	TRUE	
SNU216_PC1_02	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	5	8	8	0.05%	4.43%	PQSPVIQAAAVSPK	K	F	95.00%	3	0.237	0	1	0	0	2	1,472.75	216	229	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	1	1	1	0.01%	1.53%	QPLLLSEDEEDTKR	K	V	82.80%	3.38	0.129	0	0	1	0	2	1,752.81	34	47	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	ASGSENEGDYNPGR	K	K	95.00%	2.79	0.468	0	1	0	0	2	1,532.57	1549	1562	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	ASGSENEGDYNPGRK	K	T	95.00%	2.75	0.31	0	1	0	0	2	1,660.66	1549	1563	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	ASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	81.30%	3.25	0.116	0	0	1	0	2	3,210.37	1399	1427	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	FDSNEEDSASVFSPSFGLK	K	Q	95.00%	4.02	0.551	0	1	1	0	2	2,142.89	1464	1482	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	KASGSENEGDYNPGR	R	K	95.00%	2.93	0.472	0	1	0	0	2	1,740.63	1548	1562	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	KASGSENEGDYNPGRK	R	T	95.00%	3.57	0.374	0	2	2	0	2	1,868.72	1548	1563	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.29	0.477	0	1	4	1	2	3,017.35	1574	1599	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	KVVEAVNSDSDSEFGIPK	K	K	95.00%	4.69	0.435	0	3	0	0	2	2,000.92	1515	1532	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	5.01	0.2	0	1	2	0	2	2,875.18	1457	1482	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	SQDFGNLFSFPSYSQKSEDDSAK	K	F	95.00%	5.68	0.0691	0	0	1	0	2	2,664.11	1441	1463	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	TSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.29	0.438	0	0	1	0	2	2,889.25	1575	1599	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	VKASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	6.99	0.529	0	0	4	0	2	3,437.53	1397	1427	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	VVEAVNSDSDSEFGIPK	K	K	95.00%	3.94	0.45	0	1	0	0	2	1,872.83	1516	1532	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	VVEAVNSDSDSEFGIPKK	K	T	95.00%	3.13	0.359	0	1	0	0	2	2,080.89	1516	1533	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	YTFDFSEEEDDDADDDDDDNNDLEELK	K	V	95.00%	3.73	0.451	0	0	1	0	2	3,308.16	1370	1396	TRUE	
SNU216_PC1_02	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	16	21	32	0.20%	9.93%	YTFDFSEEEDDDADDDDDDNNDLEELKVK	K	A	95.00%	6.18	0.611	0	0	1	0	2	3,535.32	1370	1398	TRUE	
SNU216_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	3	0.02%	5.22%	AETPTESVSEPEVATK	K	Q	95.00%	3.37	0.462	0	1	0	0	2	1,754.77	193	208	TRUE	
SNU216_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	3	0.02%	5.22%	TIQEVLEEQSEDEDR	R	E	95.00%	2.64	0.275	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216_PC1_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	3	0.02%	5.22%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.04	0.498	0	1	0	0	2	1,839.79	63	79	TRUE	
SNU216_PC1_02	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.60%	2	3	3	0.02%	5.30%	EQSSDLTPSGDVSPVKPLSR	R	S	95.00%	2.77	0.381	0	1	1	0	2	2,179.03	365	384	TRUE	
SNU216_PC1_02	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.60%	2	3	3	0.02%	5.30%	YGGDSDHPSDGETSVQPMMTK	K	I	93.00%	3.08	0.0846	0	1	0	0	2	2,398.86	267	287	TRUE	
SNU216_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	3.04%	GISPVVSEHR	K	K	95.00%	1.8	0.276	0	1	0	0	2	1,160.55	781	790	TRUE	
SNU216_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	3.04%	GISPVVSEHRK	K	Q	95.00%	2.53	0.397	0	0	1	0	2	1,288.64	781	791	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	3.04%	MSSEGPPRMSPK	R	A	95.00%	2.48	0.345	0	1	0	0	2	1,383.58	614	625	TRUE	
SNU216_PC1_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	3.04%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.44	0.543	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216_PC1_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	2	2	2	0.01%	16.90%	DWEDDSDEDMSNFDR	K	F	95.00%	3.18	0.291	0	1	0	0	2	1,955.63	108	122	TRUE	
SNU216_PC1_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	2	2	2	0.01%	16.90%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	3.87	0.342	0	0	1	0	2	3,472.37	96	122	TRUE	
SNU216_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	7	9	12	0.07%	5.69%	EIQNGNLHESDSESVPR	K	D	95.00%	2.52	0.416	0	4	1	0	2	1,990.85	66	82	TRUE	
SNU216_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	7	9	12	0.07%	5.69%	KEIQNGNLHESDSESVPR	K	D	95.00%	3.19	0.19	0	0	1	0	2	2,118.95	65	82	TRUE	
SNU216_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	7	9	12	0.07%	5.69%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.92	0.358	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	7	9	12	0.07%	5.69%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.62	0.472	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	7	9	12	0.07%	5.69%	QKTENVFVDEPLIHATTYIPLMDNADSSPV\	K	E	95.00%	5.37	0.368	0	0	0	1	2	3,922.89	216	249	TRUE	
SNU216_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	7	9	12	0.07%	5.69%	QPTPPSEAAASK	K	K	95.00%	2.39	0.419	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216_PC1_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	7	9	12	0.07%	5.69%	TENVFVDEPLIHATTYIPLMDNADSSPVVDK	K	E	95.00%	6.2	0.486	0	0	1	1	2	3,666.74	218	249	TRUE	
SNU216_PC1_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	99.50%	2	2	2	0.01%	5.58%	FHDTSSPLLSGTSAAELPWAVKPEDK	R	A	90.30%	6.05	0.0157	0	0	1	0	2	2,976.44	103	129	TRUE	
SNU216_PC1_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	99.50%	2	2	2	0.01%	5.58%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	3.74	0.324	0	1	0	0	2	2,483.14	428	450	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	95.00%	4.99	0.153	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	TQEISRPNSPSEGEGESSDSR	K	S	95.00%	3.51	0.333	0	0	1	0	2	2,328.96	671	691	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	TSPINEDIR	R	S	95.00%	1.86	0.239	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	VASDTEEADR	K	T	95.00%	2.34	0.465	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	VASDTEEADRTSSK	K	K	95.00%	2.35	0.399	0	1	0	0	2	1,575.65	654	667	TRUE	
SNU216_PC1_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.71%	DRTPPLLYR	R	D	95.00%	2.88	0.341	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216_PC1_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.71%	SLSPGGAALGYR	R	D	95.00%	2.45	0.218	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216_PC1_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	3	3	3	0.02%	4.71%	SRSPLDKDTYPPSASVVGASVGGHR	R	H	87.40%	3.12	0.149	0	0	1	0	2	2,700.22	257	281	TRUE	
SNU216_PC1_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	3	4	5	0.03%	6.19%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	5.83	0.517	0	0	2	1	2	3,734.84	125	160	TRUE	
SNU216_PC1_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	3	4	5	0.03%	6.19%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.21	0.26	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216_PC1_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	100.00%	3	4	5	0.03%	6.19%	TTPTQPSEQK	K	A	95.00%	1.88	0.308	0	1	0	0	2	1,196.52	236	245	TRUE	
SNU216_PC1_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	6	6	0.04%	4.00%	RDSLTGSSDLYK	R	R	95.00%	3.67	0.396	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216_PC1_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	6	6	0.04%	4.00%	RDSLTGSSDLYKR	R	T	95.00%	3.89	0.459	0	1	1	0	2	1,577.73	708	720	TRUE	
SNU216_PC1_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	6	6	0.04%	4.00%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.43	0.278	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216_PC1_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	4	6	6	0.04%	4.00%	SMDELNHDFQALALEGR	R	A	95.00%	3.02	0.388	0	1	1	0	2	2,025.87	124	140	TRUE	
SNU216_PC1_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	1	1	2	0.01%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.66	0.318	0	0	2	0	2	2,541.20	7	31	TRUE	
SNU216_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	4	5	0.03%	6.12%	ELPPAAAIGATSLVAAPHSSSSSPSK	R	D	95.00%	3.44	0.188	0	0	1	0	2	2,513.23	767	792	TRUE	
SNU216_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	4	5	0.03%	6.12%	ELPPAAAIGATSLVAAPHSSSSSPSKDSSR	R	G	95.00%	5.54	0.0377	0	0	0	1	2	2,958.42	767	796	TRUE	
SNU216_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	4	5	0.03%	6.12%	EVSSRPSTPGLSVVSGISATSEDIPNKIEDLR	R	S	94.00%	6.94	0.0017	0	0	2	0	2	3,420.69	594	625	TRUE	
SNU216_PC1_02	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	4	5	0.03%	6.12%	RTSPSDGAMANYESTEVMGDGESAHDSPR	K	D	95.00%	9.34	0.0009	0	0	1	0	2	3,134.25	854	882	TRUE	
SNU216_PC1_02	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	4	5	0.03%	8.16%	FAFSPLSEEEEEEDEQKEPMLK	R	E	95.00%	3.31	0.505	0	1	1	0	2	2,592.11	478	498	TRUE	
SNU216_PC1_02	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	4	5	0.03%	8.16%	WVEENVPSSVTDVALPALLDSDEER	K	M	95.00%	5.6	0.498	0	1	2	0	2	2,850.31	529	553	TRUE	
SNU216_PC1_02	Isoform 1 of FERM domain-containing protein 6	IPI00043622,IPI00184707,IP	72,046.10	100.00%	2	2	2	0.01%	2.25%	HSLSLDDIR	R	L	95.00%	1.78	0.274	0	1	0	0	2	1,135.51	541	549	TRUE	
SNU216_PC1_02	Isoform 1 of FERM domain-containing protein 6	IPI00043622,IPI00184707,IP	72,046.10	100.00%	2	2	2	0.01%	2.25%	TSTDRHSLSLDDIR	K	L	95.00%	2.67	0.212	0	0	1	0	2	1,695.77	536	549	TRUE	
SNU216_PC1_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	6.24	0.0601	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216_PC1_02	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	7.68%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	4.38	0.469	0	0	1	0	2	3,490.40	206	235	TRUE	
SNU216_PC1_02	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	7.68%	GTDTQTPAVLSPSKTQATLKPK	K	D	94.90%	3.81	0.115	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216_PC1_02	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	3	0.02%	7.68%	TNKSPEAKPLPGK	K	L	95.00%	2.34	0.242	0	0	1	0	2	1,446.74	64	76	TRUE	
SNU216_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	3	5	5	0.03%	4.29%	FYDDKVSALMQPSQKR	K	Y	86.10%	2.49	0.223	0	0	1	0	2	2,088.89	143	158	TRUE	
SNU216_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	3	5	5	0.03%	4.29%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	3.96	0.463	0	1	1	0	2	2,117.99	774	792	TRUE	
SNU216_PC1_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	3	5	5	0.03%	4.29%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.62	0.468	0	1	1	0	2	3,031.34	330	356	TRUE	
SNU216_PC1_02	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	100.00%	2	3	3	0.02%	1.95%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	E	95.00%	5.01	0.489	0	0	1	1	2	3,839.87	515	548	TRUE	
SNU216_PC1_02	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	100.00%	2	3	3	0.02%	1.95%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	K	92.10%	4.98	0.0486	0	0	0	1	2	4,184.04	515	551	TRUE	
SNU216_PC1_02	Ribosome biogenesis protein BOP1	IPI00028955	83,629.30	99.80%	1	1	1	0.01%	2.14%	IGDEYAEDSSDEEDIR	R	N	95.00%	1.92	0.352	0	1	0	0	2	2,002.68	118	133	TRUE	
SNU216_PC1_02	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	99.90%	2	2	2	0.01%	2.91%	AHVEHMQSLPEDPLETSKEEEELNDSSEELY	K	I	92.70%	6.17	0.0089	0	0	0	1	2	4,137.84	1240	1274	TRUE	
SNU216_PC1_02	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	99.90%	2	2	2	0.01%	2.91%	TSSPPSSPQHSPALR	R	D	95.00%	2.55	0.377	0	1	0	0	2	1,628.74	737	751	TRUE	
SNU216_PC1_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.80%	2	2	2	0.01%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.94	0.0574	0	0	1	0	2	1,885.89	8	24	TRUE	
SNU216_PC1_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	99.80%	2	2	2	0.01%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.28	0.234	0	0	0	1	2	2,858.38	8	33	TRUE	
SNU216_PC1_02	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00218823	293,694.40	99.80%	2	2	2	0.01%	0.99%	ERPSGPESPVQGPR	R	I	95.00%	2.63	0.478	0	1	0	0	2	1,572.72	854	867	TRUE	
SNU216_PC1_02	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00218823	293,694.40	99.80%	2	2	2	0.01%	0.99%	GPVRSEDESVEAK	R	R	95.00%	2.69	0.234	0	1	0	0	2	1,482.65	840	852	TRUE	
SNU216_PC1_02	Isoform 3 of Receptor-type tyrosine-protein phos	IPI00163420,IPI00304030	89,703.70	100.00%	2	3	3	0.02%	4.24%	TGTFVVIDAMLDMMHTER	R	K	92.70%	2.46	0.247	0	0	1	0	2	2,162.93	440	457	TRUE	
SNU216_PC1_02	Isoform 3 of Receptor-type tyrosine-protein phos	IPI00163420,IPI00304030	89,703.70	100.00%	2	3	3	0.02%	4.24%	VVQEYIDAFSDYANFK	K	-	95.00%	4.57	0.556	0	0	1	1	0	2	1,988.87	778	793	TRUE	
SNU216_PC1_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	3	3	0.02%	4.47%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	2.44	0.683	0	1	0	0	2	2,580.79	423	442	TRUE	
SNU216_PC1_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	3	3	0.02%	4.47%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.68	0.118	0	0	1	0	2	2,020.86	302	320	TRUE	
SNU216_PC1_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	3	3	3	0.02%	4.47%	SSLGQSASETEEDTVSVSKK	R	E	95.00%	3.03	0.15	0	1	0	0	2	2,228.92	302	321	TRUE	
SNU216_PC1_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	8.70%	HYEDGYPGGSDNYGSLSR	R	V	95.00%	2.57	0.264	0	1	0	0	2	2,053.79	162	179	TRUE	
SNU216_PC1_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	8.70%	SMGYDDLDYGMMSDYGTAR	R	R	95.00%	4.21	0.617	0	1	0	0	2	2,227.80	234	252	TRUE	
SNU216_PC1_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	8.70%	SQSSHSYDDSTLPLIDR	R	N	95.00%	3.62	0.0735	0	1	0	0	2	2,000.86	799	815	TRUE	
SNU216_PC1_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	8.70%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.05	0.421	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC1_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	1	1	1	0.01%	1.78%	LGASNSPGQPNSVKR	K	K	95.00%	2.71	0.306	0	1	0	0	2	1,591.76	672	686	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	91.40%	3.42	0.119	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	FLSAQSHSTSPQGLDSPLPLEGSGAHQVLHI	R	G	95.00%	6.13	0.027	0	0	0	1	2	3,635.71	835	868	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	GSPTSAYPER	K	K	95.00%	1.84	0.35	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	GSPVPPVPER	R	R	94.90%	1.78	0.283	0	1	0	0	2	1,114.53	913	922	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	HGSDPAFAPGPR	R	G	95.00%	3.22	0.559	0	1	1	0	2	1,288.55	521	532	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	RGSLTLTISGESPK	R	A	95.00%	3.2	0.208	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	RGSPTTGFIEQK	R	G	88.30%	2.57	0.119	0	1	0	0	2	1,400.66	890	901	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	RGSPVPPVPER	R	R	95.00%	2.36	0.257	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	2.88	0.321	0	0	2	0	2	2,592.13	980	1001	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	3.54	0.282	0	0	2	0	2	2,639.07	4	25	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	RSSPVPPVPERR	R	G	84.40%	2.3	0.171	0	0	1	0	2	1,456.74	923	934	TRUE	
SNU216_PC1_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	12	13	15	0.09%	15.40%	SSPVPPVPER	R	R	94.30%	1.93	0.218	0	1	0	0	2	1,144.54	924	933	TRUE	
SNU216_PC1_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	5	5	0.03%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	5.1	0.0309	0	1	0	0	2	2,962.19	870	898	TRUE	
SNU216_PC1_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	5	5	0.03%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	4.59	0.533	0	0	1	1	2	3,209.61	696	726	TRUE	
SNU216_PC1_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	5	5	0.03%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	5.84	0.0509	0	1	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	3	3	3	0.02%	7.72%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	5.91	0.572	0	0	1	0	2	3,107.21	566	591	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	3	3	3	0.02%	7.72%	SWASLFHDSKPSSSSPVAYVETKYSPPAISPL	K	Q	95.00%	5.28	0.0517	0	0	0	1	2	3,958.92	346	381	TRUE	
SNU216_PC1_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	3	3	3	0.02%	7.72%	YSPPAISPLVSEK	K	Q	95.00%	2.25	0.311	0	1	0	0	2	1,467.71	369	381	TRUE	
SNU216_PC1_02	Pericentriol material 1	IPI00006213	228,705.30	100.00%	3	3	3	0.02%	2.57%	DQHLNNSSSSPQR	R	S	95.00%	3.07	0.364	0	1	0	0	2	1,549.64	423	435	TRUE	
SNU216_PC1_02	Pericentriol material 1	IPI00006213	228,705.30	100.00%	3	3	3	0.02%	2.57%	KDEETEESEYDSEHENSEPVTNIR	R	N	83.20%	3.69	0.0933	0	0	1	0	2	2,946.18	527	550	TRUE	
SNU216_PC1_02	Pericentriol material 1	IPI00006213	228,705.30	100.00%	3	3	3	0.02%	2.57%	VTNDISPESSPGVGR	R	R	95.00%	3.42	0.472	0	1	0	0	2	1,594.71	60	74	TRUE	
SNU216_PC1_02	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	3	3	0.02%	1.17%	QIDSSEEDDDEEDYDNDKR	R	S	95.00%	3.36	0.593	0	1	1	0	2	2,476.82	212	230	TRUE	
SNU216_PC1_02	chromodomain helicase DNA binding protein 1	IPI00297851	196,694.00	99.80%	2	3	3	0.02%	1.17%	RQIDSSEEDDDEEDYDNDKR	K	S	95.00%	4.31	0.634	0	0	1	0	2	2,632.92	211	230	TRUE	
SNU216_PC1_02	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	2	2	0.01%	1.66%	KVSVSESNVLLDEEVLTDPK	R	I	95.00%	3.66	0.41	0	0	1	0	2	2,281.12	2574	2593	TRUE	
SNU216_PC1_02	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	2	2	0.01%	1.66%	SLLLTDISMENVPMDTYPIHHGDPSYR	K	T	95.00%	5.18	0.432	0	0	1	0	2	3,181.44	2439	2465	TRUE	
SNU216_PC1_02	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	99.90%	1	1	3	0.02%	2.05%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.27	0.483	0	3	0	0	2	2,194.90	677	695	TRUE	
SNU216_PC1_02	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.19%	FNISSHNQSPK	R	R	80.50%	2.24	0.137	0	1	0	0	2	1,338.58	369	379	TRUE	
SNU216_PC1_02	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.19%	LLGSLDEVVLLSPVPELRDSSK	K	L	95.00%	3.25	0.299	0	0	1	0	2	2,446.28	544	565	TRUE	
SNU216_PC1_02	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	3.19%	QLQPASELWSSDGAAGLVGSLQEVTIHEK	R	Q	95.00%	3.91	0.427	0	0	1	0	2	3,130.51	41	69	TRUE	
SNU216_PC1_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	1	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.87	0.509	0	0	1	0	2	2,205.10	225	244	TRUE	
SNU216_PC1_02	DEAH (Asp-Glu-Ala-His) box polypeptide 29	IPI00217413	155,240.20	100.00%	2	2	2	0.01%	2.05%	FQSPQIQATISPPLQPK	K	T	95.00%	2.72	0.277	0	1	0	0	2	1,959.99	190	206	TRUE	
SNU216_PC1_02	DEAH (Asp-Glu-Ala-His) box polypeptide 29	IPI00217413	155,240.20	100.00%	2	2	2	0.01%	2.05%	NLFRKLQSTPK	R	Y	95.00%	2.97	0.206	0	0	1	0	2	1,411.75	551	561	TRUE	
SNU216_PC1_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	99.80%	1	1	1	0.01%	1.90%	GDDDEESDEEAVK	K	K	95.00%	2.66	0.28	0	1	0	0	2	1,517.52	613	625	TRUE	
SNU216_PC1_02	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	99.80%	2	2	3	0.02%	3.35%	FPPEDFRHSPEDFR	R	R	95.00%	2.53	0.333	0	0	2	0	2	1,855.78	567	580	TRUE	
SNU216_PC1_02	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	99.80%	2	2	3	0.02%	3.35%	SRSPLGFYVHLK	R	N	95.00%	3.02	0.338	0	0	1	0	2	1,483.75	278	289	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.57%	AGSSPAQGAQNEPPR	K	L	95.00%	3.03	0.527	0	2	0	0	2	1,546.66	556	570	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.57%	GNASPGAATHDSLSDYGPQDSRPTPMR	R	R	95.00%	3.33	0.265	0	0	1	0	2	2,865.23	963	989	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.57%	GSQEDDPAATQRPPSNGGAK	K	E	89.50%	2.14	0.286	0	1	0	0	2	2,062.88	626	645	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	4	4	5	0.03%	3.57%	LNASPAAR	R	E	95.00%	1.93	0.334	0	1	0	0	2	879.4084	571	578	TRUE	
SNU216_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	5	5	5	0.03%	2.87%	IKSSPSPEVVKPK	K	I	95.00%	3.22	0.316	0	1	0	0	2	1,555.75	636	648	TRUE	
SNU216_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	5	5	5	0.03%	2.87%	KGSDSSIPDEEK	R	M	95.00%	2.96	0.303	0	1	0	0	2	1,371.57	315	326	TRUE	
SNU216_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	5	5	5	0.03%	2.87%	LHKRSPPPETIK	K	S	91.00%	2.63	0.143	0	0	1	0	2	1,482.78	613	624	TRUE	
SNU216_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	5	5	5	0.03%	2.87%	LTPPESQSPLHWLADLAEQK	K	A	95.00%	3.23	0.233	0	0	1	0	2	2,340.13	2000	2019	TRUE	
SNU216_PC1_02	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	5	5	5	0.03%	2.87%	TSPLVSQNNEQGSTLR	R	D	95.00%	3.67	0.329	0	1	0	0	2	1,810.83	2052	2067	TRUE	
SNU216_PC1_02	Tyrosine-protein phosphatase non-receptor type	IPI00034006	178,974.60	99.30%	1	1	1	0.01%	2.02%	GAAAADLLSSSPESQHGGTQSPGGGQPLL(	R	V	86.20%	5.8	0.0139	0	0	1	0	2	3,224.52	1113	1145	TRUE	
SNU216_PC1_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.3	0.324	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC1_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.62	0.328	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216_PC1_02	Transcription repressor	IPI00382733	82,672.30	100.00%	2	2	3	0.02%	3.99%	IDGATQSSPAEPK	K	S	95.00%	2.32	0.24	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216_PC1_02	Transcription repressor	IPI00382733	82,672.30	100.00%	2	2	3	0.02%	3.99%	RGSGDTSISIDTEASIR	R	E	95.00%	2.28	0.283	0	2	0	0	2	1,844.84	86	102	TRUE	
SNU216_PC1_02	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGR	K	R	95.00%	2.69	0.288	0	0	1	0	2	1,631.76	1881	1894	TRUE	
SNU216_PC1_02	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGRR	K	K	95.00%	2.75	0.234	0	0	1	0	2	1,787.86	1881	1895	TRUE	
SNU216_PC1_02	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	4	4	4	0.02%	3.36%	EAGSPAQEFK	R	Y	95.00%	2.2	0.427	0	1	0	0	2	1,143.47	610	619	TRUE	
SNU216_PC1_02	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	4	4	4	0.02%	3.36%	HIISATSLSTSPTELGSR	R	N	92.30%	3.64	0.0252	0	1	0	0	2	1,936.94	216	233	TRUE	
SNU216_PC1_02	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	4	4	4	0.02%	3.36%	SEGSEYEELPK	H	R	88.00%	1.98	0.187	0	1	0	0	1	1,347.54	1136	1146	TRUE	
SNU216_PC1_02	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	4	4	4	0.02%	3.36%	SEGSEYEELPKR	H	R	95.00%	2.25	0.452	0	2	1	0	1	1,503.64	1136	1147	TRUE	
SNU216_PC1_02	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	4	4	4	0.02%	3.36%	SPELSYQNSSDHANEEWETASESSDFSER	R	R	95.00%	3.23	0.249	0	0	1	0	2	3,398.32	1358	1386	TRUE	
SNU216_PC1_02	PREDICTED: similar to HLA-B associated transcript	IPI00643923,IPI00741537	242,966.80	100.00%	4	4	4	0.02%	3.36%	VASETHSEGSEYEELPK	R	R	92.60%	2.12	0.206	0	1	0	0	2	2,051.79	1130	1146	TRUE	
SNU216_PC1_02	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	3	4	5	0.03%	0.65%	EASENETDMEDPR	K	E	95.00%	2.59	0.328	0	1	0	0	2	1,602.56	6359	6371	TRUE	
SNU216_PC1_02	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	3	4	5	0.03%	0.65%	QQSVESLAEEVK	R	D	95.00%	2.68	0.325	0	1	0	0	2	1,426.65	2779	2790	TRUE	
SNU216_PC1_02	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	3	4	5	0.03%	0.65%	RGSMSYLAAVEEEVEESSVK	R	S	95.00%	6.07	0.549	0	2	1	0	2	2,280.01	4106	4125	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	DNQESSDAELSSSEYIK	K	T	95.00%	3.63	0.476	0	1	0	0	2	1,981.79	622	638	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	GGSPDLWK	K	S	95.00%	1.49	0.183	1	0	0	0	2	939.3974	474	481	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	HASPDKWNDKPK	K	N	95.00%	3.34	0.421	0	0	1	0	2	1,502.68	85	96	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	KPSGSPDLWK	R	L	95.00%	2.53	0.252	0	1	0	0	2	1,194.56	441	450	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	KPSGSPDLWKLSPDQR	R	K	95.00%	2.77	0.333	0	1	2	0	2	1,970.88	441	456	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.67	0.467	0	0	2	0	2	2,526.21	280	301	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	3.87	0.411	0	1	1	0	2	2,314.11	199	219	TRUE	
SNU216_PC1_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	8	10	12	0.07%	13.00%	TAPTLSPEHWK	K	A	95.00%	2.36	0.256	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	10	11	0.07%	4.82%	DTEQKELDQDMVTEDEDDPGSHKR	K	G	95.00%	5.14	0.421	0	0	1	1	2	2,897.18	720	743	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	10	11	0.07%	4.82%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	4.29	0.394	0	1	2	1	2	2,311.90	725	743	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	10	11	0.07%	4.82%	EPLTADEEEALKQEHQR	R	K	95.00%	3.09	0.226	0	0	1	0	2	2,102.94	769	785	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	10	11	0.07%	4.82%	KRQSPEPSPVTLGR	R	R	95.00%	3.18	0.299	0	0	1	0	2	1,631.83	1411	1424	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	10	11	0.07%	4.82%	LGLHVTPSNVDQVSTPPAAK	K	K	95.00%	3.27	0.339	0	0	1	0	2	2,111.05	1534	1553	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	6	10	11	0.07%	4.82%	RQSPEPSPVTLGR	K	R	95.00%	2.81	0.447	0	1	1	0	2	1,503.73	1412	1424	TRUE	
SNU216_PC1_02	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	203,128.10	100.00%	1	1	2	0.01%	1.65%	LEEGVASDEEAEEAQPGSGPSPEPEGSPPAI	R	-	95.00%	4.93	0.472	0	0	2	0	2	3,391.41	1747	1779	TRUE	
SNU216_PC1_02	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	99.80%	1	1	2	0.01%	1.19%	DASDGEDEKPPLPPR	R	S	95.00%	2.77	0.399	0	2	0	0	2	1,702.73	130	144	TRUE	
SNU216_PC1_02	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	100.00%	2	2	2	0.01%	0.90%	EQAPDISPK	R	S	95.00%	1.96	0.332	0	1	0	0	2	1,064.47	941	949	TRUE	
SNU216_PC1_02	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	100.00%	2	2	2	0.01%	0.90%	KSSPFKDLMTVPESR	K	D	95.00%	3.32	0.279	0	0	1	0	2	1,801.86	909	923	TRUE	
SNU216_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	3	3	3	0.02%	3.03%	EKTPATTPEAR	K	V	86.40%	2.09	0.179	0	1	0	0	2	1,360.55	1206	1216	TRUE	
SNU216_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	3	3	3	0.02%	3.03%	KIDTHPSPSHSSTVKDSLIELK	R	E	95.00%	2.81	0.227	0	0	1	0	2	2,499.25	1336	1357	TRUE	
SNU216_PC1_02	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	3	3	3	0.02%	3.03%	TPVSGSLKSPVPR	K	S	95.00%	2.31	0.23	0	1	0	0	2	1,404.72	1308	1320	TRUE	
SNU216_PC1_02	YTH domain containing 2	IPI00010200	160,265.80	100.00%	1	1	1	0.01%	1.12%	VDGIPNDSSDSEMEDK	R	T	95.00%	3.01	0.382	0	1	0	0	2	1,817.68	1082	1097	TRUE	
SNU216_PC1_02	COPA protein	IPI00646493	139,327.40	100.00%	1	1	1	0.01%	0.97%	NLSPGAVESDVR	K	G	95.00%	2.86	0.493	0	1	0	0	2	1,323.59	171	182	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	2	2	2	0.01%	2.23%	AGDGSSVKEVETYHR	K	T	95.00%	2.83	0.262	0	1	0	0	2	1,714.74	56	70	TRUE	
SNU216_PC1_02	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	2	2	2	0.01%	2.23%	KPNIFYSGPASPARPR	R	Y	95.00%	3.11	0.254	0	1	0	0	2	1,837.91	317	332	TRUE	
SNU216_PC1_02	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	2	2	2	0.01%	1.78%	KVSIVSKPVLYR	R	T	95.00%	2.88	0.271	0	0	1	0	2	1,468.83	1148	1159	TRUE	
SNU216_PC1_02	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	2	2	2	0.01%	1.78%	TSFSVGSDDELGPIR	R	K	95.00%	2.37	0.356	0	1	0	0	2	1,659.73	1173	1187	TRUE	
SNU216_PC1_02	Rho guanine nucleotide exchange factor 11	IPI00157442,IPI00377085,IP	167,708.90	100.00%	3	3	3	0.02%	3.09%	NSVLSDPGLDSPRTSPVIMAR	R	V	95.00%	3.38	0.175	0	0	1	0	2	2,372.07	241	261	TRUE	
SNU216_PC1_02	Rho guanine nucleotide exchange factor 11	IPI00157442,IPI00377085,IP	167,708.90	100.00%	3	3	3	0.02%	3.09%	SLENPTPPFTPK	R	M	95.00%	2.09	0.263	0	1	0	0	2	1,487.62	663	674	TRUE	
SNU216_PC1_02	Rho guanine nucleotide exchange factor 11	IPI00157442,IPI00377085,IP	167,708.90	100.00%	3	3	3	0.02%	3.09%	TRNSGIWESPELDR	R	N	95.00%	3.33	0.413	0	0	1	0	2	1,739.78	1292	1305	TRUE	
SNU216_PC1_02	Isoform 1 of Protein KIAA0690	IPI00101186,IPI00294794	132,711.90	99.80%	1	2	2	0.01%	1.70%	GDSIEEILADSEDEEDNEEEER	K	S	95.00%	4.83	0.49	0	1	1	0	2	2,631.99	970	991	TRUE	
SNU216_PC1_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	83.10%	2.51	0.172	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC1_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	2.97	0.295	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC1_02	146 kDa protein	IPI00215638,IPI00742905	140,884.40	100.00%	1	1	1	0.01%	3.35%	SEEVPAFGVASPPPLTDTPDTTANAEGDLPT	K	A	91.60%	4.44	0.0794	0	0	1	0	2	4,489.15	77	120	TRUE	
SNU216_PC1_02	acetyl-Coenzyme A carboxylase alpha isoform 1	IPI00396015,IPI00472339	265,556.40	99.80%	1	1	1	0.01%	0.84%	FIIGSVSEDNSEDEISNLVK	R	L	95.00%	5.16	0.366	0	1	0	0	2	2,275.04	19	38	TRUE	
SNU216_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	3	4	0.02%	4.33%	ALEEGDGSVSGSSPR	K	S	95.00%	3.61	0.381	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	3	4	0.02%	4.33%	IDENSDKEMEVEESPEK	K	I	95.00%	4.35	0.339	0	2	0	0	2	2,087.84	493	509	TRUE	
SNU216_PC1_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	3	4	0.02%	4.33%	RPILQLSPPGPR	R	G	95.00%	2.27	0.281	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.30%	AFMESPKQILDSAASLTGSK	K	R	95.00%	3.15	0.455	0	0	1	0	2	2,161.02	1675	1694	TRUE	
SNU216_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.30%	SGGSGHAVAEAPSPEQELDQNK	K	G	95.00%	4.17	0.522	0	1	0	0	2	2,287.98	296	317	TRUE	
SNU216_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.30%	SSFSSDPDEKAQDSKAYSK	R	I	95.00%	2.42	0.273	0	1	0	0	2	2,156.90	127	145	TRUE	
SNU216_PC1_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	4	4	4	0.02%	2.30%	TPVQYSQQQNSPQK	K	H	95.00%	3.25	0.325	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC1_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	8	0.05%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	3.18	0.385	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216_PC1_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	8	0.05%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	3.75	0.518	0	2	2	0	2	2,129.88	78	96	TRUE	
SNU216_PC1_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	8	0.05%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	3.76	0.487	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216_PC1_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	8	0.05%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	4.43	0.375	0	0	1	0	2	2,257.97	77	96	TRUE	
SNU216_PC1_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	8	0.05%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.71	0.485	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216_PC1_02	RCC1 protein	IPI00001661,IPI00747309	48,144.30	99.80%	1	1	1	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.81	0.294	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216_PC1_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.51	0.232	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC1_02	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	3	4	4	0.02%	2.67%	MGAQQDDGSDAPPGSPDWAGDVTR	R	G	95.00%	4.78	0.599	0	1	0	0	2	2,509.99	605	628	TRUE	
SNU216_PC1_02	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	3	4	4	0.02%	2.67%	SLSNPDIASETLTLLSFLR	K	S	95.00%	4.72	0.554	0	1	1	0	2	2,157.08	461	479	TRUE	
SNU216_PC1_02	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	3	4	4	0.02%	2.67%	SPSFGAGEGLLR	R	S	88.90%	1.74	0.285	0	1	0	0	2	1,270.58	418	429	TRUE	
SNU216_PC1_02	Isoform 1 of GTPase-activating Rap/Ran-GAP dor	IPI00472044	231,687.40	99.50%	2	2	2	0.01%	1.31%	RGSSPGSLEIPK	R	D	89.10%	2.32	0.206	0	1	0	0	2	1,387.60	905	916	TRUE	
SNU216_PC1_02	Isoform 1 of GTPase-activating Rap/Ran-GAP dor	IPI00472044	231,687.40	99.50%	2	2	2	0.01%	1.31%	SSSTSDILEPFTVER	R	A	95.00%	2.99	0.164	0	1	0	0	2	1,747.78	842	856	TRUE	
SNU216_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.02%	3.35%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	4.22	0.352	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.02%	3.35%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	3.3	0.354	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216_PC1_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.02%	3.35%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.7	0.403	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	3.79%	ASPPAESMSVYR	R	S	95.00%	1.84	0.32	0	1	0	0	2	1,374.58	1454	1465	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	3.79%	DSAYISSSPLGSHQVFDFR	R	S	95.00%	4.28	0.0287	0	1	0	0	2	2,192.96	1361	1379	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	3.79%	EYPSPPPSPLR	K	R	95.00%	1.93	0.324	0	1	0	0	2	1,319.60	1437	1447	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	3.79%	PSQGLPVIQSPPSSPPHR	R	D	95.00%	4.45	0.436	0	1	2	0	2	2,040.93	1343	1360	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	5	6	7	0.04%	3.79%	QIASDSPHASPK	R	H	95.00%	2.18	0.293	0	1	0	0	2	1,397.55	305	316	TRUE	
SNU216_PC1_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	3.76%	AEEGKSPFRESSGDGMK	R	M	95.00%	2.68	0.307	0	0	1	0	2	1,891.79	753	769	TRUE	
SNU216_PC1_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	3.76%	APSLTDLVK	K	S	95.00%	2.08	0.402	0	1	0	0	2	1,023.51	1053	1061	TRUE	
SNU216_PC1_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	3.76%	LVEPHSPSPSSK	R	F	95.00%	2.58	0.347	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216_PC1_02	zinc finger protein 609	IPI00307591	151,192.70	100.00%	4	4	4	0.02%	3.76%	TNSMGSATGPLPGTK	R	V	95.00%	2.19	0.26	0	1	0	0	2	1,578.63	465	479	TRUE	
SNU216_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	6.75%	DDATPVRDEPMDAESITFK	R	S	95.00%	3.51	0.257	0	1	1	0	2	2,216.94	804	822	TRUE	
SNU216_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	6.75%	ETDEAAFEPDYNESDSESNVSVKEEESSGNI	R	D	95.00%	4.58	0.14	0	0	1	0	2	3,702.50	1454	1486	TRUE	
SNU216_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	6.75%	ISKLEVTEIVKPSPK	K	R	95.00%	3.31	0.502	0	0	1	0	2	1,747.96	990	1004	TRUE	
SNU216_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	6.75%	KVTGTEGSSSTLVDYTSTSSTGGSPVRK	R	S	95.00%	7.69	0.0536	0	0	1	0	2	2,869.35	1077	1104	TRUE	
SNU216_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	6.75%	LEVTEIVKPSPK	K	R	95.00%	2.85	0.346	0	1	1	0	2	1,419.75	993	1004	TRUE	
SNU216_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	6.75%	NLQPLMRSPISR	R	Q	95.00%	3.08	0.284	0	1	0	0	2	1,491.75	176	187	TRUE	
SNU216_PC1_02	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	182,154.80	100.00%	7	9	9	0.06%	6.75%	WDKDDFESEEEDVK	K	S	95.00%	3.23	0.251	0	1	0	0	2	1,850.70	1144	1157	TRUE	
SNU216_PC1_02	Phosphatidate cytidylyltransferase 1	IPI00024234	53,306.50	100.00%	1	1	1	0.01%	5.21%	EGEAAGGDHETESTSDKETDIDDR	R	Y	95.00%	5.77	0.0674	0	1	0	0	2	2,644.02	23	46	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	5	6	7	0.04%	10.70%	ISEGLPTPTKMTPR	K	S	95.00%	2.84	0.295	0	1	0	0	2	1,607.79	815	828	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	5	6	7	0.04%	10.70%	KSNLDEEVNVIPPHTPVR	R	T	95.00%	3.16	0.335	0	0	2	0	2	2,124.05	359	376	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	5	6	7	0.04%	10.70%	KTAATAAAAAAEPPAPPPPPPPEEDPEQDS(	K	L	95.00%	7.58	0.64	0	0	1	1	2	3,976.89	8	46	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	5	6	7	0.04%	10.70%	TAVIPINGSPR	K	T	87.20%	2.05	0.171	0	1	0	0	2	1,204.61	241	251	TRUE	
SNU216_PC1_02	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	5	6	7	0.04%	10.70%	TLQTDSIDSFETQRTPR	K	K	95.00%	2.11	0.268	0	1	0	0	2	2,074.94	342	358	TRUE	
SNU216_PC1_02	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	4	4	0.02%	2.41%	RPPSPEPSTK	R	V	95.00%	2.62	0.253	1	1	0	0	2	1,175.55	2099	2108	TRUE	
SNU216_PC1_02	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	4	4	0.02%	2.41%	TTLKNREASLGEASK	K	L	91.10%	2.18	0.189	0	1	0	0	2	1,764.79	1049	1063	TRUE	
SNU216_PC1_02	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	3	4	4	0.02%	2.41%	VSEEAESQQQWDTSKGEQVSQNGLPAEQ(	K	M	95.00%	5.24	0.432	0	0	1	0	2	3,566.57	2109	2140	TRUE	
SNU216_PC1_02	Matrin-3	IPI00017297	94,626.70	100.00%	1	2	3	0.02%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.88	0.428	0	0	1	2	2	2,598.14	186	207	TRUE	
SNU216_PC1_02	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	4	4	0.02%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	2.68	0.292	0	1	1	0	2	2,449.02	958	978	TRUE	
SNU216_PC1_02	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	4	4	0.02%	2.06%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	4.04	0.434	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216_PC1_02	Isoform 1 of ADAM 9 precursor	IPI00440932,IPI00747759	90,740.50	99.90%	2	2	2	0.01%	4.03%	HVSPVTPPREVPIYANR	R	F	95.00%	2.16	0.288	0	0	1	0	2	2,012.01	758	774	TRUE	
SNU216_PC1_02	Isoform 1 of ADAM 9 precursor	IPI00440932,IPI00747759	90,740.50	99.90%	2	2	2	0.01%	4.03%	SQTYESDGKNQANPSR	R	Q	95.00%	2.02	0.368	0	1	0	0	2	1,861.77	735	750	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	ALNTLSSPGQSSFSHGTR	K	N	95.00%	3.34	0.322	0	0	1	0	2	1,926.87	1554	1571	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	AQSYDIQAWK	R	K	95.00%	2.58	0.331	0	1	0	0	2	1,289.56	1313	1322	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	AQSYDIQAWKK	R	Q	89.80%	2.4	0.141	0	1	0	0	2	1,417.65	1313	1323	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	KAESSSDEEEESEKQK	K	Q	95.00%	2.19	0.257	0	1	0	0	2	2,079.71	876	891	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	KVLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.2	0.25	0	1	1	0	2	2,438.00	1278	1298	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	KVNEEKDGPISPK	K	K	95.00%	3.1	0.306	0	1	0	0	2	1,520.74	901	913	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	RTAFYNEDDSEEEQR	R	Q	95.00%	3.48	0.395	0	1	1	0	2	1,968.76	1774	1788	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	TAFYNEDDSEEEQR	R	Q	95.00%	3.12	0.447	0	2	0	0	2	1,812.66	1775	1788	TRUE	
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.66	0.383	0	1	1	0	2	2,309.91	1279	1298	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	13	14	0.09%	5.16%	VNEEKDGPISPK	K	K	95.00%	2.67	0.155	0	1	0	0	2	1,392.64	902	913	TRUE	
SNU216_PC1_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	99.80%	2	2	2	0.01%	10.00%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	3.17	0.612	0	1	0	0	2	2,786.98	127	147	TRUE	
SNU216_PC1_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	99.80%	2	2	2	0.01%	10.00%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	5.97	0.579	0	1	0	0	2	2,721.11	258	280	TRUE	
SNU216_PC1_02	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	2	2	2	0.01%	1.77%	YSPTSPTYSPTSPVYTPTSPK	K	Y	94.20%	4.06	0	0	1	0	0	2	2,338.05	1890	1910	TRUE	
SNU216_PC1_02	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	2	2	2	0.01%	1.77%	YSPTSPTYSPTTPK	K	Y	89.80%	3.46	0.0218	0	1	0	0	2	1,606.70	1876	1889	TRUE	
SNU216_PC1_02	Centromere protein C 1	IPI00304885	106,928.30	99.80%	1	1	2	0.01%	1.70%	NDVDDEEVHGSSDDSK	K	Q	95.00%	3.29	0.504	0	2	0	0	2	1,827.66	699	714	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	9	0.06%	5.50%	EKSESGGSEYGTGPGR	R	K	95.00%	3.06	0.434	0	1	0	0	2	1,677.68	131	146	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	9	0.06%	5.50%	ELQGDGPPSSPTNDPTVK	K	Y	95.00%	3.89	0.401	0	1	0	0	2	1,918.84	749	766	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	9	0.06%	5.50%	GGSYVFQSDEGPEPEAEESDLDSGSVHSAS	K	T	95.00%	4.42	0.275	0	0	0	1	2	3,983.68	351	388	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	9	0.06%	5.50%	KGGSYVFQSDEGPEPEAEESDLDSGSVHSA	K	T	95.00%	7.03	0.151	0	0	0	1	2	4,111.78	350	388	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	9	0.06%	5.50%	KNDMDEPPPLDYGSGEDDGK	R	S	95.00%	5.29	0.481	0	0	1	0	2	2,258.88	629	648	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	9	0.06%	5.50%	METEADAPSPAPSLGER	K	L	95.00%	3.71	0.55	0	3	0	0	2	1,933.73	1638	1654	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	7	7	9	0.06%	5.50%	SESGGSEYGTGPGR	K	K	95.00%	2.8	0.53	0	1	0	0	2	1,420.54	133	146	TRUE	
SNU216_PC1_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	2.76	0.218	0	0	1	0	2	2,102.79	57	72	TRUE	
SNU216_PC1_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	3.44	0.602	0	1	0	0	2	2,052.92	129	148	TRUE	
SNU216_PC1_02	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	3	3	0.02%	3.21%	AQNEFKDEAQSLSHSPK	R	R	95.00%	4.64	0.429	0	1	1	0	2	1,995.88	507	523	TRUE	
SNU216_PC1_02	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	3	3	0.02%	3.21%	RVPTTLSIKPLGAISPVLNR	K	K	95.00%	3.44	0.426	0	0	1	0	2	2,212.26	524	543	TRUE	
SNU216_PC1_02	Diacylglycerol O-acyltransferase 1	IPI00015799,IPI00735571,IP	55,280.00	100.00%	1	1	1	0.01%	4.30%	TGSRPSSHGGGGPAAAEEEVR	R	D	95.00%	3.67	0.384	0	0	1	0	2	2,088.91	12	32	TRUE	
SNU216_PC1_02	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.23	0.429	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216_PC1_02	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	4.65	0.583	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	5	0.03%	3.64%	KISGTTALQEALK	R	E	95.00%	2.16	0.24	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	5	0.03%	3.64%	SPSASSLSSMSSVASSVSSR	R	P	95.00%	4.2	0.0316	0	1	0	0	2	1,980.86	310	329	TRUE	
SNU216_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	5	0.03%	3.64%	SPSASSLSSMSSVASSVSSRPSR	R	T	95.00%	3.7	0.463	0	0	2	0	2	2,321.04	310	332	TRUE	
SNU216_PC1_02	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	4	4	5	0.03%	3.64%	TASESISNLSEAGSIK	K	K	95.00%	2.85	0.214	0	1	0	0	2	1,673.76	191	206	TRUE	
SNU216_PC1_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	99.80%	2	2	2	0.01%	15.50%	DLLHPSPEEEK	K	R	95.00%	2.6	0.319	0	1	0	0	2	1,373.60	13	23	TRUE	
SNU216_PC1_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	99.80%	2	2	2	0.01%	15.50%	DLLHPSPEEEKRK	K	H	95.00%	3.5	0.257	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	5	6	9	0.06%	3.33%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	3.3	0.49	0	1	1	0	2	2,327.88	548	567	TRUE	
SNU216_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	5	6	9	0.06%	3.33%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	4.17	0.378	0	0	4	0	2	2,563.19	145	166	TRUE	
SNU216_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	5	6	9	0.06%	3.33%	PASHSHAHQHSPISPR	R	T	95.00%	2.54	0.201	0	0	1	0	2	1,905.79	1858	1873	TRUE	
SNU216_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	5	6	9	0.06%	3.33%	QQQLEEEAAKPPEPEKPVSPPPIESK	K	H	95.00%	3.57	0.392	0	0	1	0	2	2,962.45	197	222	TRUE	
SNU216_PC1_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	5	6	9	0.06%	3.33%	TDDTSGEDNDEKEAVASK	K	G	95.00%	2.66	0.254	0	1	0	0	2	2,070.74	550	567	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	5.59	0.538	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	4.36	0.333	0	0	1	1	2	2,290.07	266	286	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	ATLLNVPDLSDSIHSANASERDDISEIQSLAS	R	S	95.00%	5.1	0.338	0	0	0	1	2	4,000.85	266	302	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	DDISEIQSLASDHSGR	R	S	95.00%	3.03	0.297	0	0	1	0	2	1,809.77	287	302	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	93.20%	3.29	0.172	0	0	0	1	2	3,211.37	883	909	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	HSPQQPSNGSLR	R	S	95.00%	2.42	0.332	0	1	0	0	2	1,387.61	328	339	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	IDSPGFKPASQQK	R	A	95.00%	2.44	0.272	0	1	0	0	2	1,482.70	910	922	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	ISKPGAVSTPVK	R	H	87.20%	2.03	0.225	0	1	0	0	2	1,263.67	346	357	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	3.8	0.382	0	0	1	0	2	2,165.08	346	365	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.33	0.474	0	0	2	1	2	3,571.59	111	140	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	LEEPTPAPSTSYSPQADSLR	R	T	95.00%	4.15	0.0343	0	1	0	0	2	2,226.00	956	975	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	SFENKPPAHIAASHLSEPAKPAHSQNQSNF	R	G	95.00%	4.11	0.348	0	0	0	1	2	3,960.83	1366	1401	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	4.21	0.435	0	0	0	1	2	3,866.70	877	909	TRUE	
SNU216_PC1_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	19	0.12%	12.90%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.66	0.408	0	0	2	1	2	3,443.49	112	140	TRUE	
SNU216_PC1_02	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	99.80%	1	1	1	0.01%	0.75%	STELVLSPDMPR	R	T	95.00%	2.95	0.406	0	1	0	0	2	1,424.65	237	248	TRUE	
SNU216_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	6	8	8	0.05%	3.63%	DQMEGSPNSSESFEHIAR	R	S	95.00%	3.74	0.433	0	1	0	0	2	2,100.83	774	791	TRUE	
SNU216_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	6	8	8	0.05%	3.63%	LPDLSPVENK	K	E	95.00%	2.52	0.271	0	1	0	0	2	1,191.57	2101	2110	TRUE	
SNU216_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	6	8	8	0.05%	3.63%	LPDLSPVENKEHKPGPIGK	K	E	95.00%	3.65	0.522	0	0	1	0	2	2,135.09	2101	2119	TRUE	
SNU216_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	6	8	8	0.05%	3.63%	QRGSETDTDSEIHESASDKDSLSK	R	G	95.00%	2.3	0.289	0	0	1	0	2	2,862.08	1260	1283	TRUE	
SNU216_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	6	8	8	0.05%	3.63%	SVSHGSNHTQKPDEQR	R	S	95.00%	2.92	0.399	0	1	1	1	2	1,886.81	924	939	TRUE	
SNU216_PC1_02	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	6	8	8	0.05%	3.63%	VKDAQQVEPEGQEKPSPATVR	K	S	95.00%	2.66	0.234	0	0	1	0	2	2,373.14	2128	2148	TRUE	
SNU216_PC1_02	Lupus La protein	IPI00009032	46,839.00	99.80%	2	2	2	0.01%	5.15%	FASDDEHDEHDENGATGPVK	K	R	95.00%	2.97	0.3	0	0	1	0	2	2,249.86	364	383	TRUE	
SNU216_PC1_02	Lupus La protein	IPI00009032	46,839.00	99.80%	2	2	2	0.01%	5.15%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	3.22	0.286	0	0	1	1	2	2,405.96	364	384	TRUE	
SNU216_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	3	3	3	0.02%	2.80%	SPQVLGSSLSVRSPTGSPSR	K	L	85.30%	3.59	0.0207	0	1	0	0	2	2,158.99	975	994	TRUE	
SNU216_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	3	3	3	0.02%	2.80%	SVSVDSGEQR	R	E	95.00%	2.09	0.266	0	1	0	0	2	1,143.47	116	125	TRUE	
SNU216_PC1_02	DLNB11 protein	IPI00328798	157,129.30	100.00%	3	3	3	0.02%	2.80%	TAMPSPGVSQNK	K	Q	85.40%	2.07	0.169	0	1	0	0	2	1,296.57	1013	1024	TRUE	
SNU216_PC1_02	Protein C10orf12	IPI00166933	137,225.80	98.80%	1	1	1	0.01%	1.92%	EDNPEEPSKEITSHEEGGGDVSPR	R	K	95.00%	4.56	0.415	0	0	1	0	2	2,675.11	252	275	TRUE	
SNU216_PC1_02	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.79	0.543	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216_PC1_02	Zinc finger protein 185	IPI00005688	49,186.50	99.90%	2	2	2	0.01%	7.22%	QSSPSGSEQLVR	R	R	95.00%	2.8	0.41	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	DKEVSDDEAEEK	R	E	95.00%	2.91	0.221	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	DKEVSDDEAEEKEDK	R	E	95.00%	3.36	0.143	0	1	0	0	2	1,845.73	349	363	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	3.92	0.515	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	4	4	4	0.02%	4.10%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	3.12	0.364	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216_PC1_02	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.80%	2	2	2	0.01%	1.57%	MSMTGAGKSPPSVQSLAMR	K	L	95.00%	2.96	0.256	0	0	1	0	2	2,015.91	132	150	TRUE	
SNU216_PC1_02	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.80%	2	2	2	0.01%	1.57%	SPPSVQSLAMR	K	L	95.00%	2.14	0.363	0	1	0	0	2	1,252.58	140	150	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	98.90%	1	1	1	0.01%	0.56%	KLANDFPLDLSPVK	R	K	95.00%	3.48	0.357	0	1	0	0	2	1,636.83	678	691	TRUE	
SNU216_PC1_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	4	4	0.02%	7.93%	APVHFVEPLSPTGVAGHR	K	K	95.00%	3.74	0.296	0	0	1	0	2	1,950.96	793	810	TRUE	
SNU216_PC1_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	4	4	0.02%	7.93%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	6	0.424	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216_PC1_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	4	4	0.02%	7.93%	QDSDSDVVDIEEAEHDFMGEAHPVVFSR	R	Y	95.00%	6.86	0.563	0	0	1	0	2	3,240.35	458	485	TRUE	
SNU216_PC1_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	100.00%	4	4	4	0.02%	7.93%	SPQGQLDTSESKPDSFFLEPLMPAVLKPAK	R	E	95.00%	2.2	0.265	0	0	1	0	2	3,337.64	297	326	TRUE	
SNU216_PC1_02	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	HRSIHEVDISNLEAALR	R	A	95.00%	3.22	0.16	0	0	1	0	2	2,040.00	885	901	TRUE	
SNU216_PC1_02	Pleckstrin homology domain containing, family A	IPI00007248,IPI00477104	119,291.80	99.80%	2	3	3	0.02%	3.09%	TKSPTDDEVTPSAVVR	R	R	95.00%	4.18	0.547	0	1	1	0	2	1,781.83	795	810	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	9	0.06%	7.18%	DSAAPSPIPGADNLSADPVVSPPTSIPFK	R	S	95.00%	4.11	0.387	0	0	1	0	2	2,927.41	424	452	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	9	0.06%	7.18%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	R	95.00%	4.97	0.403	0	0	2	1	2	3,690.75	1093	1125	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	9	0.06%	7.18%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.27	0.53	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	4	6	9	0.06%	7.18%	SSLSGDEEDELFK	R	G	95.00%	2.78	0.386	0	3	0	0	2	1,535.62	1279	1291	TRUE	
SNU216_PC1_02	Ferritin heavy chain	IPI00554521	21,095.00	100.00%	1	1	1	0.01%	14.30%	KMGAPESGLAEYLFDKHTLGDSDNES	R	-	95.00%	3.6	0.257	0	0	1	0	2	2,891.24	157	182	TRUE	
SNU216_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	5	6	0.04%	6.66%	ILDILGETCKSEPVK	K	E	95.00%	2.94	0.191	0	1	0	0	2	1,861.84	217	231	TRUE	IPI00005648
SNU216_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	5	6	0.04%	6.66%	MSSPEDDSDTKR	K	L	95.00%	2.31	0.456	0	2	0	0	2	1,527.51	382	393	TRUE	
SNU216_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	5	6	0.04%	6.66%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	95.00%	5.51	0.379	0	0	1	0	2	2,928.28	227	252	TRUE	IPI00005648
SNU216_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	5	6	0.04%	6.66%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.62	0.503	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216_PC1_02	103 kDa protein	IPI00646058	102,769.00	100.00%	5	5	6	0.04%	6.66%	SVVSFDKVKEPR	R	K	95.00%	2.66	0.391	0	0	1	0	2	1,470.74	601	612	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	AEPSEVDMNSPK	K	S	95.00%	2.39	0.242	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	EEPSQNDISPK	K	T	93.70%	2.14	0.184	0	1	0	0	2	1,323.55	81	91	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	4.07	0.446	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	KEEPSQNDISPK	K	T	95.00%	2.84	0.338	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	4.24	0.46	0	1	1	0	2	1,639.74	60	73	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.72	0.481	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	3.94	0.422	0	2	1	0	2	1,791.77	117	131	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	12	13	0.08%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	3.62	0.441	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216_PC1_02	General vesicular transport factor p115	IPI00743314	107,909.70	99.80%	1	1	1	0.01%	3.53%	DLGHPVEEEDELESGDQEDEDDESEDPGKD	K	-	95.00%	5.9	0.591	0	0	1	0	2	3,916.52	929	962	TRUE	
SNU216_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	5	6	9	0.06%	3.15%	DGQDAIAQSPEK	K	E	95.00%	2.66	0.39	1	0	0	0	2	1,338.56	281	292	TRUE	
SNU216_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	5	6	9	0.06%	3.15%	DGQDAIAQSPEKESK	K	D	95.00%	3.94	0.428	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	5	6	9	0.06%	3.15%	ISSKSPGHMVILDQTK	R	G	95.00%	4.04	0.481	0	1	3	0	2	1,820.90	549	564	TRUE	
SNU216_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	5	6	9	0.06%	3.15%	RISSKSPGHMVILDQTK	K	G	95.00%	3.3	0.258	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216_PC1_02	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	5	6	9	0.06%	3.15%	SPGHMVILDQTK	K	G	95.00%	2.72	0.353	0	1	0	0	2	1,405.65	553	564	TRUE	
SNU216_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	4	5	0.03%	5.43%	ATDEDMQSLASLMSMK	K	Q	95.00%	2.97	0.286	0	1	0	0	2	1,837.74	164	179	TRUE	
SNU216_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	4	5	0.03%	5.43%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	3.07	0.363	0	2	1	0	2	1,927.99	389	406	TRUE	
SNU216_PC1_02	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	4	5	0.03%	5.43%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	5.93	0.477	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	6	0.04%	4.45%	ELDPSLVSANDSPSGMQTR	R	C	95.00%	4.26	0.0736	0	1	0	0	2	2,083.90	2150	2168	TRUE	
SNU216_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	6	0.04%	4.45%	GQSPLAPLLETLEDPSASHGGQTDAYLTLTS	R	M	95.00%	4.09	0.497	0	0	1	0	2	3,405.62	5	36	TRUE	
SNU216_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	6	0.04%	4.45%	RASQGLLSSIENSESDSSEAKEEGSR	R	K	95.00%	3.24	0.166	0	0	1	0	2	2,913.21	1540	1565	TRUE	
SNU216_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	6	0.04%	4.45%	SLSPDEER	K	L	95.00%	1.63	0.298	0	1	0	0	2	1,012.40	2391	2398	TRUE	
SNU216_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	6	0.04%	4.45%	SPLHIKDDVLPK	K	Q	95.00%	2.69	0.342	0	0	1	0	2	1,441.75	1454	1465	TRUE	
SNU216_PC1_02	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	6	6	6	0.04%	4.45%	VKSPQRPSDWSK	K	K	81.50%	1.8	0.255	0	0	1	0	2	1,494.71	780	791	TRUE	
SNU216_PC1_02	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	99.80%	2	2	2	0.01%	1.79%	GPSPSPVGSPASVAQSR	R	S	95.00%	3.16	0.361	0	1	0	0	2	1,660.77	694	710	TRUE	
SNU216_PC1_02	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	99.80%	2	2	2	0.01%	1.79%	SHHAPMSPGSSGGGGQPLAR	R	T	95.00%	3.35	0.417	0	0	1	0	2	1,967.85	357	376	TRUE	
SNU216_PC1_02	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	2	2	0.01%	1.16%	GPVGTVSEAQLAR	K	R	95.00%	2.24	0.433	0	1	0	0	2	1,364.66	168	180	TRUE	
SNU216_PC1_02	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	2	2	0.01%	1.16%	HTIIPAKSPEK	R	C	95.00%	2.84	0.536	0	1	0	0	2	1,300.67	1908	1918	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	3	5	6	0.04%	4.32%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.98	0.493	0	2	1	0	2	1,868.75	1461	1477	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	3	5	6	0.04%	4.32%	NSKSPEEHLEEMMK	K	M	95.00%	3.85	0.293	0	1	1	0	2	1,768.73	358	371	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	3	5	6	0.04%	4.32%	SDVQEESEGSDTDDNKDSAAFEDNEVQDE	R	L	92.70%	5.6	0.0383	0	0	1	0	2	3,881.46	699	731	TRUE	
SNU216_PC1_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	99.70%	2	2	2	0.01%	3.98%	QRSPIALPVKQEPPQIDAVK	R	R	95.00%	2.92	0.264	0	0	1	0	2	2,294.23	209	228	TRUE	
SNU216_PC1_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	99.70%	2	2	2	0.01%	3.98%	SSSESPGSSKEK	R	K	94.30%	1.89	0.261	0	0	1	0	2	1,449.46	760	771	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	6	9	11	0.07%	4.69%	DHYQDPVPGITPSSSSR	K	T	94.70%	4.03	0.0056	0	1	0	0	2	1,922.83	1515	1531	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	6	9	11	0.07%	4.69%	KMSDDEDDDEEEYGK	K	E	95.00%	3.21	0.53	0	1	0	0	2	1,884.64	123	137	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	6	9	11	0.07%	4.69%	KMSDDEDDDEEEYGKEEHEK	K	E	95.00%	6.07	0.54	0	1	1	2	2	2,536.92	123	142	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	6	9	11	0.07%	4.69%	MSDDEDDDEEEYGKEEHEK	K	E	95.00%	4.69	0.571	0	1	2	0	2	2,408.82	124	142	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	6	9	11	0.07%	4.69%	RTSFDDRLEDDDFDLIEENLGVK	K	V	95.00%	3.24	0.303	0	0	1	0	2	2,821.26	89	111	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	6	9	11	0.07%	4.69%	TRTPASINATPANINLADLTR	R	A	81.20%	3.23	0.026	0	1	0	0	2	2,370.12	1532	1552	TRUE	
SNU216_PC1_02	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	2	2	2	0.01%	3.56%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	4.96	0.391	0	0	1	0	2	3,284.37	341	369	TRUE	
SNU216_PC1_02	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	2	2	2	0.01%	3.56%	EKLQSFDSPER	R	K	95.00%	2.63	0.215	0	1	0	0	2	1,415.62	1018	1028	TRUE	
SNU216_PC1_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	5	5	5	0.03%	4.37%	IEDSEPHIPLIDDTDAEDDAPTK	R	R	95.00%	4.63	0.408	0	0	1	0	2	2,616.12	1181	1203	TRUE	
SNU216_PC1_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	5	5	5	0.03%	4.37%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	5.83	0.406	0	0	1	0	2	2,772.23	1181	1204	TRUE	
SNU216_PC1_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	5	5	5	0.03%	4.37%	SATSSSPGSPLHSLETSL	K	-	94.00%	2.56	0.221	0	2	0	0	2	1,837.82	1232	1249	TRUE	
SNU216_PC1_02	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	5	5	5	0.03%	4.37%	SSIHNFMTHPEFR	R	I	95.00%	3.05	0.352	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216_PC1_02	Protein DmX-like 2	IPI00152542	339,757.50	99.80%	1	1	1	0.01%	1.02%	VDEEPLNLDWGEDHDSALDEEEDDAVGLV	K	S	95.00%	4.05	0.369	0	0	1	0	2	3,564.49	1969	1999	TRUE	
SNU216_PC1_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	98.60%	1	1	1	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.82	0.34	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216_PC1_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	2	2	2	0.01%	12.50%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.1	0.304	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216_PC1_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	2	2	2	0.01%	12.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	5.28	0.626	0	1	0	0	2	2,419.90	147	166	TRUE	
SNU216_PC1_02	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1	IPI00297178,IPI00552073,IP	119,580.10	99.80%	1	1	1	0.01%	1.44%	LLEDSEESSEETVSR	R	A	95.00%	3.26	0.38	0	1	0	0	2	1,789.74	103	117	TRUE	
SNU216_PC1_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.75	0.412	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216_PC1_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	6.13	0.583	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216_PC1_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.09	0.481	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC1_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.24	0.253	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC1_02	CASP8-associated protein 2	IPI00100798	222,659.80	99.80%	2	2	2	0.01%	2.12%	NESPPQVPVYNNSHK	K	D	95.00%	2.76	0.361	0	1	0	0	2	1,789.79	873	887	TRUE	
SNU216_PC1_02	CASP8-associated protein 2	IPI00100798	222,659.80	99.80%	2	2	2	0.01%	2.12%	NSPLDELEEGEIRSDSETSKPQESFEK	K	N	95.00%	4.65	0.306	0	0	1	0	2	3,160.38	927	953	TRUE	
SNU216_PC1_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	2	3	3	0.02%	6.12%	AAESETPGKSPEK	K	K	95.00%	2.97	0.464	0	1	0	0	2	1,410.62	418	430	TRUE	
SNU216_PC1_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	2	3	3	0.02%	6.12%	ATNESEDEIPQLVPIGK	K	K	95.00%	2.92	0.327	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.76	0.396	0	0	3	0	2	2,279.98	667	686	TRUE	
SNU216_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	GLAGPPASPGK	K	A	95.00%	2.4	0.494	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.69	0.475	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216_PC1_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	KLQLERPVSPETQADLQR	R	N	95.00%	3.43	0.34	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	5	6	6	0.04%	3.54%	DGETLEGSDAEESLDK	K	T	95.00%	2.47	0.313	0	1	0	0	2	1,774.69	2949	2964	TRUE	
SNU216_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	5	6	6	0.04%	3.54%	GKNFDEESNASMSTAR	R	D	95.00%	2.15	0.219	0	1	0	0	2	1,903.69	2265	2280	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	5	6	6	0.04%	3.54%	NIPSPGQLDPDTR	R	I	88.60%	1.98	0.201	0	1	0	0	2	1,489.67	2556	2568	TRUE	
SNU216_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	5	6	6	0.04%	3.54%	TPFKDEIDEFANSPSEDKEESMEIHATGK	R	H	95.00%	5.07	0.517	0	0	1	1	2	3,361.45	1862	1890	TRUE	
SNU216_PC1_02	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	5	6	6	0.04%	3.54%	VPVHQHSPSEPFLEKPVPDMTQVSGPNAQ	K	S	95.00%	4.61	0.319	0	0	0	1	2	3,572.76	551	582	TRUE	
SNU216_PC1_02	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	99.80%	1	1	2	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	5.68	0.121	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216_PC1_02	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	2	2	0.01%	1.16%	LSEAVWQPEEHYSSSPEK	K	I	95.00%	3.69	0.355	0	1	0	0	2	2,182.93	904	921	TRUE	
SNU216_PC1_02	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	2	2	0.01%	1.16%	WDSDNDEENEDVPISMK	K	E	95.00%	4.13	0.554	0	1	0	0	2	2,102.79	1968	1984	TRUE	
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.38	0.426	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	AQLEPVASPAK	K	K	95.00%	2.17	0.215	1	1	0	0	2	1,190.58	1428	1438	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	ARSDEGQLSPATR	R	G	95.00%	3.1	0.312	0	0	1	0	2	1,467.66	712	724	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	GYYSPYSVSGSGSTAGSR	K	T	86.90%	3.67	0	0	2	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	4.52	0.148	0	2	3	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	SDEGQLSPATR	R	G	95.00%	2.45	0.326	0	1	0	0	2	1,240.52	714	724	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	SLQEEHVAVAQLR	R	E	95.00%	2.07	0.244	0	1	0	0	2	1,559.76	1732	1744	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	8	11	18	0.11%	2.63%	SSSVGSSSSYPISPAVSR	R	T	95.00%	2.88	0.369	0	4	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC1_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.02%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	89.60%	6.47	0.0008	0	0	1	0	2	3,614.83	125	161	TRUE	
SNU216_PC1_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.02%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.38	0.503	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216_PC1_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.02%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	2.65	0.305	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC1_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	4	4	0.02%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.51	0.338	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC1_02	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	3.02%	DIEVLSEDTDYEEDEVTKK	K	R	95.00%	3.15	0.409	0	1	0	0	2	2,416.96	699	717	TRUE	
SNU216_PC1_02	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	3.02%	LSKPPFQTNPSPEMVSK	R	L	95.00%	3.37	0.141	0	1	0	0	2	1,966.93	579	595	TRUE	
SNU216_PC1_02	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	3	3	3	0.02%	3.02%	RLSKPPFQTNPSPEMVSK	R	L	94.30%	3	0.162	0	0	1	0	2	2,123.04	578	595	TRUE	
SNU216_PC1_02	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	1	1	1	0.01%	0.44%	SPSPVLR	K	L	91.40%	1.64	0.238	0	1	0	0	2	835.4074	230	236	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	AVTPVPTK	R	T	94.50%	1.29	0.205	1	0	0	0	2	892.4541	524	531	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.32	0.498	0	1	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.21	0.487	0	0	1	0	2	3,607.64	74	113	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	ETESAPGSPR	K	A	95.00%	1.58	0.387	1	1	0	0	2	1,190.41	514	523	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.45	0.389	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	HSSNPPLESHVGWVMDSR	R	E	95.00%	4.61	0.455	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.63	0.265	0	0	1	0	2	2,405.19	130	152	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	NTFTAWSDEESDYEIDDR	K	D	83.00%	2.79	0.0794	0	1	0	0	2	2,352.82	621	638	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	5.77	0.117	0	2	1	0	2	2,729.09	621	642	TRUE	
SNU216_PC1_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	10	13	16	0.10%	14.60%	SLPTTVPESPNYR	R	N	95.00%	3.17	0.476	0	3	0	0	2	1,540.70	766	778	TRUE	
SNU216_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	6	6	7	0.04%	3.04%	AKPVVSDDDSEEEQEEDR	R	S	95.00%	3.68	0.537	0	2	0	0	2	2,236.82	1654	1671	TRUE	
SNU216_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	6	6	7	0.04%	3.04%	DSDAGSSTPTTSTR	R	S	95.00%	3.76	0.0634	0	1	0	0	2	1,462.57	1448	1461	TRUE	
SNU216_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	6	6	7	0.04%	3.04%	IPDPDSDDVSEVDAR	K	H	95.00%	3.36	0.46	0	1	0	0	2	1,709.69	690	704	TRUE	
SNU216_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	6	6	7	0.04%	3.04%	KIPDPDSDDVSEVDAR	K	H	95.00%	2.39	0.389	0	1	0	0	2	1,837.79	689	704	TRUE	
SNU216_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	6	6	7	0.04%	3.04%	KKIPDPDSDDVSEVDAR	K	H	95.00%	2.4	0.389	0	1	0	0	2	2,045.85	688	704	TRUE	
SNU216_PC1_02	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	6	6	7	0.04%	3.04%	KRDSDAGSSTPTTSTR	R	S	95.00%	2.95	0.33	0	1	0	0	2	1,746.77	1446	1461	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGR	K	P	95.00%	2.65	0.396	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.74	0.335	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216_PC1_02	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	10.10%	RSPSPYYSR	R	D	95.00%	2.16	0.278	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	11	0.07%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.32	0.434	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	11	0.07%	4.56%	EKEISDDEAEEEK	R	G	95.00%	3.08	0.458	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	11	0.07%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.74	0.492	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	11	0.07%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.81	0.447	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	11	0.07%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.54	0.509	0	2	1	0	2	1,817.70	249	264	TRUE	
SNU216_PC1_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	11	0.07%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.98	0.389	0	2	1	0	2	1,945.79	249	265	TRUE	
SNU216_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	2	2	2	0.01%	1.87%	EGVQGPLNVSLSEEGK	K	S	95.00%	3.93	0.488	0	1	0	0	2	1,722.79	1177	1192	TRUE	
SNU216_PC1_02	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	2	2	2	0.01%	1.87%	ILLSQTTGVAIPLHASSLDDVSLASTPK	K	R	95.00%	3.65	0.266	0	0	1	0	2	2,914.52	617	644	TRUE	
SNU216_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	DPGLEPGPDSPGGSSPPR	K	R	95.00%	3.02	0.396	0	1	0	0	2	1,798.76	963	980	TRUE	
SNU216_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	DPGLEPGPDSPGGSSPPRR	K	Q	95.00%	2.8	0.408	0	1	0	0	2	2,034.83	963	981	TRUE	
SNU216_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	SGSEEAVTDPGER	R	E	95.00%	2.67	0.435	0	1	0	0	2	1,413.55	1200	1212	TRUE	
SNU216_PC1_02	Protein FAM38A	IPI00006093	240,951.80	100.00%	4	4	4	0.02%	1.95%	TASELLLDR	R	R	95.00%	1.69	0.277	0	1	0	0	2	1,097.52	1225	1233	TRUE	
SNU216_PC1_02	Protein LYRIC	IPI00328715	63,838.40	99.80%	1	1	1	0.01%	1.55%	SETSWESPK	K	Q	95.00%	2.17	0.371	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216_PC1_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	3	3	3	0.02%	1.43%	AESGPDLR	R	Y	95.00%	1.73	0.348	1	0	0	0	2	924.3824	20	27	TRUE	
SNU216_PC1_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	3	3	3	0.02%	1.43%	SMSFQGIR	R	Q	95.00%	1.88	0.363	0	1	0	0	2	1,005.42	2207	2214	TRUE	
SNU216_PC1_02	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	3	3	3	0.02%	1.43%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.61	0.0055	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	4.23%	EVAATEEDVTRLPSPTSPFSSLSQDQAATSK	K	A	95.00%	5.67	0.0905	0	0	1	0	2	3,329.54	641	671	TRUE	
SNU216_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	4.23%	GESLDNLDSPR	R	S	95.00%	2.12	0.292	0	1	0	0	2	1,282.53	1174	1184	TRUE	
SNU216_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	4.23%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	4.06	0.159	0	1	0	0	2	2,128.98	652	671	TRUE	
SNU216_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	4.23%	RGESLDNLDSPR	R	S	95.00%	2.83	0.325	0	1	0	0	2	1,438.63	1173	1184	TRUE	
SNU216_PC1_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	4.23%	SHSPSASQSGSQLR	R	N	95.00%	2.94	0.328	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216_PC1_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	99.80%	2	2	2	0.01%	11.10%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.44	0.232	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216_PC1_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	99.80%	2	2	2	0.01%	11.10%	LGGLRPESPESLTSVSR	R	T	95.00%	2.73	0.308	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216_PC1_02	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	99.80%	1	1	1	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	4.49	0.444	0	0	1	0	2	2,565.01	131	153	TRUE	
SNU216_PC1_02	nucleoporin 160kDa	IPI00221235,IPI00748807	162,125.00	99.80%	1	2	2	0.01%	1.81%	LIRPEYAWIVQPVSGAVYDRPGASPK	R	R	95.00%	7.12	0.508	0	0	1	1	2	2,949.50	1134	1159	TRUE	
SNU216_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	5	7	9	0.06%	14.50%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	4.41	0.368	0	0	2	1	2	2,877.32	600	626	TRUE	
SNU216_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	5	7	9	0.06%	14.50%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	4.44	0.552	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	5	7	9	0.06%	14.50%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	7.13	0.535	0	0	2	0	2	3,292.37	627	658	TRUE	
SNU216_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	5	7	9	0.06%	14.50%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	7.27	0.523	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216_PC1_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	5	7	9	0.06%	14.50%	SQEEVPPDSDDNKTK	R	K	95.00%	2.19	0.285	0	1	0	0	2	1,768.73	696	710	TRUE	
SNU216_PC1_02	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.90%	1	2	2	0.01%	1.65%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.49	0.606	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216_PC1_02	DNA polymerase alpha catalytic subunit	IPI00220317,IPI00647655	165,917.30	100.00%	1	2	2	0.01%	1.44%	SIGASPNPFSVHTATAVPSGK	R	I	95.00%	3.24	0.479	0	1	1	0	2	2,105.01	186	206	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.70%	2	3	3	0.02%	2.20%	LSGEHSESSTPR	K	P	94.00%	1.98	0.221	0	1	0	0	2	1,366.56	1315	1326	TRUE	
SNU216_PC1_02	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.70%	2	3	3	0.02%	2.20%	SLDSEPSVPSAAKPPSPEK	K	T	95.00%	3.89	0.458	0	1	1	0	2	2,002.94	357	375	TRUE	
SNU216_PC1_02	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	100.00%	2	2	2	0.01%	3.98%	ADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	3.84	0.34	0	0	1	0	2	3,164.27	543	570	TRUE	
SNU216_PC1_02	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	100.00%	2	2	2	0.01%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	5.15	0.403	0	0	1	0	2	3,320.37	542	570	TRUE	
SNU216_PC1_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.28	0.29	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC1_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	KAEDSDSEPEPEDNVR	K	L	95.00%	3.4	0.327	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216_PC1_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.43	0.489	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216_PC1_02	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.80%	2	2	2	0.01%	2.07%	GKASPFEEDQNR	K	D	95.00%	2.05	0.345	0	1	0	0	2	1,457.61	133	144	TRUE	
SNU216_PC1_02	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.80%	2	2	2	0.01%	2.07%	QASPTEVVER	R	L	95.00%	2.32	0.289	0	1	0	0	2	1,195.54	180	189	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription elongation factor SPT5	IPI00298058,IPI00479229,IP	120,527.40	99.80%	1	1	1	0.01%	3.40%	SAAGSEKEEEPEDEEEEEEEEEYDEEEEEEDD	R	K	95.00%	5.92	0.617	0	0	1	0	2	4,494.64	32	68	TRUE	
SNU216_PC1_02	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	99.80%	2	2	2	0.01%	2.04%	SFLSEPSSPGR	R	T	95.00%	2.28	0.346	0	1	0	0	2	1,243.54	1572	1582	TRUE	
SNU216_PC1_02	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	99.80%	2	2	2	0.01%	2.04%	VISHDRDSPPPPPPPPPPQPQPSLK	R	R	95.00%	6.54	0.487	0	0	1	0	2	2,854.43	131	156	TRUE	
SNU216_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.92	0.541	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	K	95.00%	3.7	0.416	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	6.13	0.612	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	3.55	0.451	0	1	1	0	2	2,174.04	104	122	TRUE	
SNU216_PC1_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	8	9	0.06%	6.15%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.62	0.481	0	1	2	0	2	2,045.94	105	122	TRUE	
SNU216_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	7	7	0.04%	4.60%	RSSGFISELPSEEGK	K	K	95.00%	3.67	0.501	0	1	1	0	2	1,702.77	966	980	TRUE	
SNU216_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	7	7	0.04%	4.60%	SERPPTILMTEEPSSPK	K	G	95.00%	3.37	0.265	0	1	1	0	2	1,978.92	1080	1096	TRUE	
SNU216_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	7	7	0.04%	4.60%	SSGFISELPSEEGK	K	K	95.00%	2.74	0.411	0	1	0	0	2	1,546.67	967	980	TRUE	
SNU216_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	7	7	0.04%	4.60%	SWGQQAQEYQEQK	R	Q	95.00%	2.93	0.379	0	1	0	0	2	1,689.69	1286	1298	TRUE	
SNU216_PC1_02	leucine rich repeat containing 16	IPI00014843,IPI00746051	147,092.30	100.00%	5	7	7	0.04%	4.60%	TASRPDDIPDSPSSPK	R	V	95.00%	3.31	0.443	0	1	0	0	2	1,749.77	1233	1248	TRUE	
SNU216_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	8	8	0.05%	8.59%	ATSSHFSASEESMDFLDK	K	S	95.00%	2.71	0.196	0	1	0	0	2	2,068.82	473	490	TRUE	
SNU216_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	8	8	0.05%	8.59%	ELSESVQQQSTPVPLISPK	K	R	95.00%	3.15	0.459	0	1	1	0	2	2,147.06	550	568	TRUE	
SNU216_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	8	8	0.05%	8.59%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.47	0.475	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	8	8	0.05%	8.59%	SPMSTNSSVHTGSDVEQDAEK	R	K	95.00%	3.7	0.319	0	0	1	0	2	2,285.92	451	471	TRUE	
SNU216_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	8	8	0.05%	8.59%	STSPASEKADPGAVK	K	D	95.00%	2.46	0.239	0	1	0	0	2	1,604.66	669	683	TRUE	
SNU216_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	8	8	0.05%	8.59%	TPPSTTVGSHSPPETPVLTR	K	S	95.00%	2.87	0.337	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216_PC1_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	8	8	0.05%	8.59%	VKLNFDMTASPK	K	I	95.00%	2.08	0.225	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216_PC1_02	Carboxypeptidase D precursor	IPI00027078	152,917.40	99.90%	1	2	3	0.02%	1.59%	SLLSHEFQDETDTEEETLYSSK	K	-	95.00%	4.95	0.351	0	1	2	0	2	2,668.12	1358	1379	TRUE	
SNU216_PC1_02	E14 protein	IPI00290547	154,433.90	99.80%	1	1	1	0.01%	0.98%	KVSPTEIVLESFHK	K	A	95.00%	2.84	0.219	0	0	1	0	2	1,693.86	1149	1162	TRUE	
SNU216_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	6	6	6	0.04%	6.30%	DVEDMELSDVEDDGSK	R	I	95.00%	3.22	0.329	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	6	6	6	0.04%	6.30%	GPTSTSIDNIDGTPVRDER	R	S	95.00%	2.89	0.327	0	1	0	0	2	2,109.95	685	703	TRUE	
SNU216_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	6	6	6	0.04%	6.30%	SATPEPVTDNR	K	D	95.00%	2.31	0.318	0	1	0	0	2	1,266.54	330	340	TRUE	
SNU216_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	6	6	6	0.04%	6.30%	SATPEPVTDNRDVEDMELSDVEDDGSK	K	I	95.00%	3.43	0.251	0	0	1	0	2	3,030.24	330	356	TRUE	
SNU216_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	6	6	6	0.04%	6.30%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	4.65	0.0786	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216_PC1_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	6	6	6	0.04%	6.30%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.64	0.486	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216_PC1_02	zinc finger RNA binding protein	IPI00333858	117,011.80	99.80%	2	3	3	0.02%	1.40%	RDSDGVDGFEAEGK	R	K	95.00%	4.49	0.548	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216_PC1_02	zinc finger RNA binding protein	IPI00333858	117,011.80	99.80%	2	3	3	0.02%	1.40%	RRDSDGVDGFEAEGK	R	K	95.00%	4.07	0.49	0	1	1	0	2	1,717.72	1051	1065	TRUE	
SNU216_PC1_02	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	99.80%	1	1	1	0.01%	2.08%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	3.42	0.35	0	1	0	0	2	2,046.92	510	526	TRUE	
SNU216_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	4.48%	GDRDESDDGGVAQR	R	M	95.00%	2.62	0.327	0	1	0	0	2	1,556.60	544	557	TRUE	
SNU216_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	4.48%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	3.09	0.35	0	1	1	1	2	2,030.85	281	298	TRUE	
SNU216_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	4.48%	HEDGTQSDSEDPLAK	K	A	95.00%	2.93	0.346	0	1	0	0	2	1,708.67	284	298	TRUE	
SNU216_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	4.48%	LGDASDTEAADGER	R	G	95.00%	2.4	0.318	0	1	0	0	2	1,486.57	1061	1074	TRUE	
SNU216_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	4.48%	MVIQLRPGRSPEPDGPAPAFLR	R	Q	95.00%	3.3	0.285	0	0	1	0	2	2,484.26	774	795	TRUE	
SNU216_PC1_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	8	8	0.05%	4.48%	SPEPDGPAPAFLR	R	Q	95.00%	2	0.292	0	1	0	0	2	1,433.65	783	795	TRUE	
SNU216_PC1_02	Isoform 2 of AP-3 complex subunit delta-1	IPI00289608,IPI00719680	136,654.70	100.00%	1	1	1	0.01%	1.53%	NTETSKSPEKDVPMVEK	R	K	95.00%	3.41	0.204	0	1	0	0	2	1,998.91	823	839	TRUE	
SNU216_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	10	0.06%	3.34%	KKPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	4.99	0.395	0	0	1	0	2	2,321.10	1391	1413	TRUE	
SNU216_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	10	0.06%	3.34%	SPLEHSSPEK	R	E	93.70%	2.3	0.148	0	1	0	0	2	1,190.51	1109	1118	TRUE	
SNU216_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	10	0.06%	3.34%	SPLEHSSPEKEAPSPEK	R	T	95.00%	3.71	0.373	0	2	2	0	2	2,008.83	1109	1125	TRUE	
SNU216_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	10	0.06%	3.34%	VQEKPDSPGGSTQIQR	R	Y	95.00%	3.88	0.376	0	1	1	0	2	1,806.84	1284	1299	TRUE	
SNU216_PC1_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	5	7	10	0.06%	3.34%	VSPPAPGSAPETPEDK	R	S	95.00%	2.16	0.239	0	2	0	0	2	1,738.70	1260	1275	TRUE	
SNU216_PC1_02	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.80%	1	2	2	0.01%	3.72%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	7.38	0.507	0	0	1	1	2	4,052.72	188	220	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	8	0.05%	3.82%	HFSTLKDDDLVEFSDLESEDDERPR	R	S	95.00%	3.68	0.391	0	0	1	1	2	3,074.33	1272	1296	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	8	0.05%	3.82%	NTSSDNSDVEVMPAQSPR	R	E	95.00%	4	0.372	0	3	0	0	2	2,013.82	412	429	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	8	0.05%	3.82%	TASPLPLRPDAPVEK	R	S	95.00%	2.62	0.275	0	1	0	0	2	1,670.85	1858	1872	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	8	0.05%	3.82%	TASPLPLRPDAPVEKSPEETATQVPSLESLTLI	R	L	95.00%	5.41	0.163	0	0	1	0	2	3,581.84	1858	1890	TRUE	
SNU216_PC1_02	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	6	8	0.05%	3.82%	VSPSDTTPLVSR	R	S	95.00%	2.88	0.322	0	1	0	0	2	1,338.63	1910	1921	TRUE	
SNU216_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	6	6	0.04%	2.76%	HSDNPSEEGEVKDDGLEK	R	S	95.00%	3.47	0.52	0	1	0	0	2	2,144.81	1368	1385	TRUE	
SNU216_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	6	6	0.04%	2.76%	KQDSSDEDDDDDEAPK	K	R	95.00%	3.75	0.542	0	1	0	0	2	1,968.63	204	219	TRUE	
SNU216_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	6	6	0.04%	2.76%	KQDSSDEDDDDDEAPKR	K	Q	95.00%	3.57	0.486	0	1	1	0	2	2,124.73	204	220	TRUE	
SNU216_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	6	6	0.04%	2.76%	LKEEHGIELSSPR	R	H	95.00%	2.26	0.207	0	1	0	0	2	1,574.76	1355	1367	TRUE	
SNU216_PC1_02	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	6	6	0.04%	2.76%	QDSSDEDDDDDEAPKR	K	Q	95.00%	3.28	0.666	0	1	0	0	2	1,996.63	205	220	TRUE	
SNU216_PC1_02	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	99.80%	1	1	1	0.01%	2.27%	IQQFDDGGSDEEDIWEEK	R	H	95.00%	3.72	0.414	0	1	0	0	2	2,219.87	529	546	TRUE	
SNU216_PC1_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	99.90%	1	1	1	0.01%	2.12%	KFDHESSPGTDEDKSG	K	-	95.00%	2.55	0.331	0	1	0	0	2	1,975.64	739	754	TRUE	
SNU216_PC1_02	RB-binding protein	IPI00002579	190,121.70	99.30%	1	1	1	0.01%	0.48%	ERSYELVR	R	S	86.50%	1.81	0.207	0	1	0	0	2	1,131.52	1591	1598	TRUE	
SNU216_PC1_02	Isoform Long of Collagen alpha-1(XII) chain precu	IPI00329573,IPI00641961,IP	333,145.30	99.70%	1	1	1	0.01%	0.91%	ITYQPSTGEGNEQTTTIGGRQNSVVLQK	R	L	93.20%	3.32	0.185	0	0	1	0	2	3,246.41	1785	1812	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	99.80%	2	2	2	0.01%	8.76%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	3.75	0.463	0	0	1	0	2	2,586.99	308	328	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	99.80%	2	2	2	0.01%	8.76%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.01	0.298	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216_PC1_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.02%	13.70%	AHAWPSPYK	R	D	95.00%	2.2	0.38	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216_PC1_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.02%	13.70%	AHAWPSPYKDYEVK	R	K	95.00%	3.18	0.302	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216_PC1_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.02%	13.70%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNQ	R	E	83.00%	4.98	0.0419	0	0	0	1	2	4,125.84	299	333	TRUE	
SNU216_PC1_02	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.94%	AKSEDSDVELSD	K	-	82.30%	2.06	0.162	0	1	0	0	2	1,374.53	1392	1403	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.94%	RVTQHESDNENEIQIQNK	R	L	95.00%	3.98	0.291	0	1	0	0	2	2,262.01	61	78	TRUE	
SNU216_PC1_02	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.94%	VTQHESDNENEIQIQNK	R	L	95.00%	5	0.37	0	1	1	0	2	2,105.91	62	78	TRUE	
SNU216_PC1_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	2	2	2	0.01%	10.60%	AEDGATPSPSNETPKK	K	K	95.00%	3.09	0.39	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216_PC1_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	2	2	2	0.01%	10.60%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.64	0.442	0	1	0	0	2	1,864.84	11	29	TRUE	
SNU216_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	4	4	0.02%	5.44%	ASALLFSSDEEDQWNIPASQTHLASDSR	K	S	95.00%	5.94	0.574	0	0	1	0	2	3,155.40	507	534	TRUE	
SNU216_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	4	4	0.02%	5.44%	ERRTPSDDEEDNLFAPPK	K	L	95.00%	3.28	0.232	0	0	1	0	2	2,275.93	222	239	TRUE	
SNU216_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	4	4	0.02%	5.44%	GLFSDEEDSEDLFSSQSASK	K	L	95.00%	4.55	0.559	0	1	0	0	2	2,257.90	430	449	TRUE	
SNU216_PC1_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	4	4	4	0.02%	5.44%	TPSDDEEDNLFAPPK	R	L	95.00%	3.41	0.487	0	1	0	0	2	1,754.72	225	239	TRUE	
SNU216_PC1_02	251 kDa protein	IPI00177743	251,116.00	99.80%	2	2	2	0.01%	1.71%	LGSPVDNLEDMDRDDLTDDSVFTR	R	S	95.00%	3.54	0.408	0	0	1	0	2	2,805.19	171	194	TRUE	
SNU216_PC1_02	251 kDa protein	IPI00177743	251,116.00	99.80%	2	2	2	0.01%	1.71%	TKSPKPAESPQSATK	R	Q	95.00%	3.11	0.365	0	0	1	0	2	1,636.79	1035	1049	TRUE	
SNU216_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.18%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	3.1	0.216	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.18%	ESASPTIPNLDLLEAHTK	R	E	95.00%	2.7	0.305	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.18%	GSDDAPYSPTAR	K	V	88.10%	2.43	0.122	0	1	0	0	2	1,316.52	898	909	TRUE	
SNU216_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.18%	KGSDDAPYSPTAR	R	V	95.00%	2.87	0.341	0	2	0	0	2	1,444.61	897	909	TRUE	
SNU216_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.18%	LEKSPLAGNKDNK	K	F	95.00%	2.96	0.261	0	0	1	0	2	1,493.74	622	634	TRUE	
SNU216_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.18%	RPSASSPNNNTAAK	R	G	95.00%	3.48	0.482	0	1	0	0	2	1,494.67	1059	1072	TRUE	
SNU216_PC1_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	7	8	9	0.06%	7.18%	SRESASPTIPNLDLLEAHTK	K	E	95.00%	3.24	0.301	0	0	1	0	2	2,259.10	534	553	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase MRCK beta	IPI00477763	194,318.00	99.80%	1	2	4	0.02%	1.23%	HSTPSNSSNPSGPPSPNSPHR	K	S	95.00%	5.42	0.416	0	1	3	0	2	2,300.91	1676	1696	TRUE	
SNU216_PC1_02	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.05%	GELSEEELPYYVELPDR	R	T	95.00%	2.84	0.317	0	1	0	0	2	2,117.93	1082	1098	TRUE	
SNU216_PC1_02	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.05%	KNSWEPKPITVPQFK	R	Q	95.00%	2.81	0.249	0	0	1	0	2	1,878.95	679	693	TRUE	
SNU216_PC1_02	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.05%	SSESPSSSPSSPARK	K	N	95.00%	2.49	0.231	0	1	0	0	2	1,570.67	711	725	TRUE	
SNU216_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	8	10	0.06%	9.64%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	2.59	0.335	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	8	10	0.06%	9.64%	EEDEPEERSGDETPGSEVPGDKAAEEQGDD	R	S	95.00%	3.6	0.487	0	0	1	0	2	3,870.51	153	187	TRUE	
SNU216_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	8	10	0.06%	9.64%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	2.75	0.377	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	8	10	0.06%	9.64%	SGDETPGSEVPGDK	R	A	95.00%	2.37	0.433	0	2	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	8	10	0.06%	9.64%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	4.39	0.519	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216_PC1_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	8	10	0.06%	9.64%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.16	0.456	0	0	1	2	2	4,198.92	226	261	TRUE	
SNU216_PC1_02	hypothetical protein LOC23074 isoform a	IPI00479669	164,202.30	99.80%	2	2	2	0.01%	2.53%	DHNVGSPPKSPTHASPQHTQTEK	K	D	95.00%	3.56	0.191	0	0	0	1	2	2,560.16	409	431	TRUE	
SNU216_PC1_02	hypothetical protein LOC23074 isoform a	IPI00479669	164,202.30	99.80%	2	2	2	0.01%	2.53%	SGSGEIGSETSDKK	K	D	95.00%	2.6	0.381	0	1	0	0	2	1,461.61	987	1000	TRUE	
SNU216_PC1_02	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	3	3	0.02%	1.16%	HEDEQALLDQNSQTPPPSPFSVQAFNK	R	G	95.00%	5.82	0.521	0	0	1	0	2	3,104.40	2632	2658	TRUE	
SNU216_PC1_02	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	3	3	0.02%	1.16%	SKSDSYTLDPDTLR	R	K	83.00%	3.13	0.0334	0	1	0	0	2	1,677.74	2831	2844	TRUE	
SNU216_PC1_02	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	3	3	0.02%	1.16%	SLSPNHNTLQTLK	R	S	95.00%	2.64	0.327	0	1	0	0	2	1,532.75	2749	2761	TRUE	
SNU216_PC1_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	GADNDGSGSESGYTTPK	K	K	95.00%	3.06	0.433	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC1_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	NDSWGSFDLR	R	A	95.00%	2.2	0.402	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC1_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	RTSPQVLGSILK	K	S	95.00%	2.73	0.345	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC1_02	Huntingtin	IPI00002335	347,859.30	99.80%	2	2	2	0.01%	0.54%	EKEPGEQASVPLSPK	K	K	95.00%	3.55	0.383	0	1	0	0	2	1,675.79	1189	1203	TRUE	
SNU216_PC1_02	Huntingtin	IPI00002335	347,859.30	99.80%	2	2	2	0.01%	0.54%	GKEKEPGEQASVPLSPK	K	K	95.00%	4.95	0.457	0	0	1	0	2	1,860.91	1187	1203	TRUE	
SNU216_PC1_02	Putative chloride channel protein 7	IPI00020524,IPI00745767	89,390.00	99.80%	1	2	2	0.01%	3.20%	VGHMSSVELLDELLDPDMDPPHPFPK	R	E	95.00%	5.1	0.426	0	0	1	1	2	2,997.31	56	81	TRUE	
SNU216_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	7	7	0.04%	4.71%	FHALSSPQSPFPSTPTSR	K	R	95.00%	2.96	0.251	0	0	1	0	2	2,023.93	1560	1577	TRUE	
SNU216_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	7	7	0.04%	4.71%	HSASPVVFTSAR	R	S	95.00%	2.32	0.335	0	1	0	0	2	1,418.59	1430	1441	TRUE	
SNU216_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	7	7	0.04%	4.71%	LIDLESPTPESQK	K	S	95.00%	2.66	0.297	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	7	7	0.04%	4.71%	QDPVVHLSPNK	R	Q	95.00%	2.89	0.327	0	1	0	0	2	1,313.63	1263	1273	TRUE	
SNU216_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	7	7	0.04%	4.71%	RLSPGSDIYVTVSSMALAR	R	S	95.00%	3.81	0.444	0	1	1	0	2	2,103.03	1125	1143	TRUE	
SNU216_PC1_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	6	7	7	0.04%	4.71%	TLSDESIYNSQR	R	E	95.00%	2.83	0.316	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216_PC1_02	Isoform 1 of Filamin-C	IPI00178352,IPI00413958	291,286.30	99.80%	1	1	1	0.01%	0.33%	LGSFGSITR	R	Q	95.00%	1.55	0.372	0	1	0	0	2	1,017.48	2231	2239	TRUE	
SNU216_PC1_02	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	EIPEDVDMEEEKESEDSDEENDFTEK	K	V	95.00%	2.55	0.255	0	0	1	0	2	3,277.17	766	791	TRUE	
SNU216_PC1_02	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	3	0.02%	5.42%	VQDTSNTGLGEDIIHQLSK	K	S	95.00%	4.13	0.461	0	1	1	0	2	2,135.00	792	810	TRUE	
SNU216_PC1_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	9	0.06%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	3.33	0.403	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216_PC1_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	9	0.06%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	5.47	0.552	0	1	2	4	2	2,333.13	446	466	TRUE	
SNU216_PC1_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	3	5	9	0.06%	10.20%	SQEMVHLVNK	K	E	95.00%	2.18	0.21	0	1	0	0	2	1,264.58	457	466	TRUE	
SNU216_PC1_02	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	2	2	2	0.01%	1.92%	GGDVSPSPYSSSSWR	R	R	95.00%	2.82	0.37	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216_PC1_02	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	2	2	2	0.01%	1.92%	IEHAPSPSSGGTLK	K	N	84.20%	2.53	0.11	0	1	0	0	2	1,460.68	520	533	TRUE	
SNU216_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	6	7	8	0.05%	1.56%	HVTLPSSPR	R	S	95.00%	1.83	0.384	0	1	0	0	2	1,073.51	2713	2721	TRUE	
SNU216_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	6	7	8	0.05%	1.56%	HVTLPSSPRSNTPMGDKDDDDDDDADEK	R	M	95.00%	2.73	0.292	0	0	0	1	2	3,312.20	2713	2740	TRUE	
SNU216_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	6	7	8	0.05%	1.56%	RHVTLPSSPR	R	S	92.90%	2.31	0.183	0	0	1	0	2	1,229.62	2712	2721	TRUE	
SNU216_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	6	7	8	0.05%	1.56%	SNTPMGDKDDDDDDDADEK	R	M	95.00%	3.64	0.519	0	2	1	0	2	2,177.73	2722	2740	TRUE	
SNU216_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	6	7	8	0.05%	1.56%	TGSTSSKEDDYESDAATIVQK	R	C	95.00%	3.87	0.0228	0	1	0	0	2	2,311.98	360	380	TRUE	
SNU216_PC1_02	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	6	7	8	0.05%	1.56%	TSPADHGGSVGSESGGSAVDSVAGEHSVS	R	S	84.10%	6.06	0.0011	0	0	1	0	2	2,920.23	2884	2914	TRUE	
SNU216_PC1_02	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.70%	2	2	3	0.02%	2.28%	LPNTYPNSSSPGPGGLGGSVHYATMAR	R	S	94.40%	6.53	0.0153	0	0	1	0	2	2,768.25	855	881	TRUE	
SNU216_PC1_02	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.70%	2	2	3	0.02%	2.28%	SLSNSNPDISGTPTSPDDEVR	R	S	95.00%	4.6	0	0	2	0	0	2	2,267.97	896	916	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.98%	AAGARPLTSPESLSR	K	D	95.00%	2.02	0.277	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.98%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	88.30%	4.77	0.0562	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.98%	ASPEPQRENASPAGTTAEEAMSR	R	G	95.00%	4.37	0.432	0	0	2	0	2	2,564.11	957	980	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.98%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.47	0.5	0	2	1	0	2	1,798.73	964	980	TRUE	
SNU216_PC1_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	6	8	0.05%	7.98%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.77	0.446	0	0	1	0	2	3,176.48	936	963	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	4	4	4	0.02%	6.49%	HPPLYQAGLTPPLSPPK	R	S	95.00%	2.14	0.25	0	1	0	0	2	1,892.97	491	507	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	4	4	4	0.02%	6.49%	LSLSPALQDALHTFPQLQVEQSGEGSPEEGA	R	L	95.00%	3.31	0.259	0	0	1	0	2	3,570.71	1096	1128	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	4	4	4	0.02%	6.49%	NLETLPSFSSDEEDSVAK	R	N	88.10%	2.13	0.186	0	1	0	0	2	2,127.84	569	586	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	131,683.40	100.00%	4	4	4	0.02%	6.49%	SHGLEPAAPSPR	R	L	95.00%	2.42	0.47	0	1	0	0	2	1,298.59	52	63	TRUE	
SNU216_PC1_02	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	1	1	1	0.01%	0.45%	WRSLQQLAEER	R	S	95.00%	2.78	0.32	0	1	0	0	2	1,495.71	1215	1225	TRUE	
SNU216_PC1_02	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	99.90%	2	2	2	0.01%	2.62%	SEEDNEIESEEEVQPK	K	T	95.00%	3.38	0.387	0	1	0	0	2	1,970.78	219	234	TRUE	
SNU216_PC1_02	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	99.90%	2	2	2	0.01%	2.62%	VHVQFFDDSPTR	R	G	95.00%	2.63	0.456	0	1	0	0	2	1,527.66	129	140	TRUE	
SNU216_PC1_02	Akt substrate AS250	IPI00719759	210,746.50	99.80%	2	2	4	0.02%	1.07%	RSSSPAELDLKDDLQQTQGK	R	C	95.00%	4.44	0.448	0	0	3	0	2	2,296.08	818	837	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Akt substrate AS250	IPI00719759	210,746.50	99.80%	2	2	4	0.02%	1.07%	SSSPAELDLKDDLQQTQGK	R	C	95.00%	4.55	0.526	0	1	0	0	2	2,139.98	819	837	TRUE	
SNU216_PC1_02	Absent in melanoma 1-like	IPI00017443	50,983.70	100.00%	3	3	4	0.02%	6.83%	DVPSPGGLSAPSSPR	K	N	95.00%	3.77	0.425	0	1	0	0	2	1,503.68	429	443	TRUE	
SNU216_PC1_02	Absent in melanoma 1-like	IPI00017443	50,983.70	100.00%	3	3	4	0.02%	6.83%	MVPPVVVGSPPGSPSR	R	S	95.00%	2.32	0.328	0	2	0	0	2	1,722.77	216	231	TRUE	
SNU216_PC1_02	Absent in melanoma 1-like	IPI00017443	50,983.70	100.00%	3	3	4	0.02%	6.83%	RKDVPSPGGLSAPSSPR	R	N	95.00%	5.36	0.507	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	DFDSSEDEKHSK	K	K	95.00%	2.05	0.414	0	1	0	0	2	1,583.53	778	789	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	ETFSSAEGTVDKDTTIMELR	R	D	95.00%	4.58	0.48	0	1	1	0	2	2,310.02	818	837	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	HKLTVSDGESGEEKK	R	T	95.00%	2.64	0.356	0	1	0	0	2	1,803.76	1275	1289	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	KDELSDYAEK	K	S	95.00%	2.75	0.229	0	1	0	0	2	1,277.53	989	998	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	KKDELSDYAEK	K	S	95.00%	2.95	0.39	0	1	0	0	2	1,405.62	988	998	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	LHDFLAHSSEESEETSSPPR	K	L	95.00%	3.04	0.333	0	0	1	0	2	2,414.95	18	37	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	NLKTSQEGSSDDAER	K	K	95.00%	1.87	0.308	0	1	0	0	2	1,876.64	799	813	TRUE	
SNU216_PC1_02	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	8	9	9	0.06%	5.28%	YVESDDEKPLDDETVNEDASNENSENDITV	K	D	88.20%	6.25	0.0163	0	0	1	0	2	4,050.68	89	123	TRUE	
SNU216_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	5	0.03%	1.96%	ITPPAAKPGSPQAK	R	S	95.00%	3.07	0.353	0	0	1	0	2	1,442.74	669	682	TRUE	
SNU216_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	5	0.03%	1.96%	SAQGSSSPVPSMVQK	R	S	95.00%	2.79	0.195	0	1	0	0	2	1,569.70	651	665	TRUE	
SNU216_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	5	0.03%	1.96%	SAQGSSSPVPSMVQKSPR	R	I	95.00%	2.64	0.395	0	1	0	0	2	1,909.88	651	668	TRUE	
SNU216_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	5	0.03%	1.96%	SPRITPPAAKPGSPQAK	K	S	95.00%	2.86	0.27	0	0	1	0	2	1,862.89	666	682	TRUE	
SNU216_PC1_02	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	5	5	5	0.03%	1.96%	VPAKLSPMK	K	Q	95.00%	1.67	0.317	0	1	0	0	2	1,050.54	935	943	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	AETPTAAEDDNEGDKK	K	K	95.00%	2.75	0.372	0	1	0	0	2	1,770.71	299	314	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	IEPIPGESPK	K	M	95.00%	2.25	0.218	0	1	0	0	2	1,146.54	1161	1170	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	KQSFDDNDSEELEDK	K	D	95.00%	2.32	0.287	0	1	0	0	2	1,878.73	105	119	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	KQSFDDNDSEELEDKDSK	K	S	95.00%	4.21	0.42	0	2	3	0	2	2,288.85	105	122	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	KWDGSEEDEDNSK	K	K	95.00%	2.76	0.31	0	1	0	0	2	1,618.59	160	172	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	KWDGSEEDEDNSKK	K	I	95.00%	3.78	0.393	0	2	2	0	2	1,746.69	160	173	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.16	0.529	0	3	2	0	2	2,113.87	206	224	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.71	0.346	0	2	1	0	2	2,080.79	106	122	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	VEMYSGSDDDDDFNK	K	L	95.00%	3.12	0.554	0	2	0	0	2	1,816.63	131	145	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.52	0.416	0	4	2	0	2	2,154.86	131	148	TRUE	
SNU216_PC1_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	11	16	30	0.18%	7.79%	WDGSEEDEDNSKK	K	I	82.80%	2.24	0.14	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	12.50%	GDSLKEPTSIAESSR	R	H	95.00%	2.42	0.325	0	0	1	0	2	1,656.75	325	339	TRUE	
SNU216_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	12.50%	GVGSPEPGPTAPYLGR	R	S	95.00%	3.17	0.268	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	12.50%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	4.38	0.354	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC1_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	4	4	4	0.02%	12.50%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.77	0.514	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	10	10	0.06%	4.17%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.19	0.394	0	1	1	0	2	2,224.85	760	778	TRUE	
SNU216_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	10	10	0.06%	4.17%	EADDDEEVDDNIPEMPSPKK	K	M	95.00%	4	0.511	0	1	1	0	2	2,352.94	760	779	TRUE	
SNU216_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	10	10	0.06%	4.17%	SDGEAKPEPSPSPR	K	I	95.00%	2.76	0.516	0	1	0	0	2	1,533.66	205	218	TRUE	
SNU216_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	10	10	0.06%	4.17%	SKSDGEAKPEPSPSPR	R	I	95.00%	2.54	0.278	0	1	1	0	2	1,748.79	203	218	TRUE	
SNU216_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	10	10	0.06%	4.17%	VGMADANSPPKPLSKPR	R	T	95.00%	3.62	0.335	0	1	1	0	2	1,844.91	182	198	TRUE	
SNU216_PC1_02	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	6	10	10	0.06%	4.17%	VNPQISDEKDEDEKEEK	K	R	95.00%	3.22	0.207	0	0	1	0	2	2,111.90	369	385	TRUE	
SNU216_PC1_02	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEK	R	K	95.00%	4.05	0.397	0	0	1	0	2	2,415.04	129	149	TRUE	
SNU216_PC1_02	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEKK	R	D	95.00%	6.21	0.515	0	0	1	1	2	2,543.14	129	150	TRUE	
SNU216_PC1_02	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	99.80%	2	2	2	0.01%	2.27%	EAARSPDKPGGSPSASR	R	R	95.00%	2.77	0.202	0	1	0	0	2	1,829.76	45	61	TRUE	
SNU216_PC1_02	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	99.80%	2	2	2	0.01%	2.27%	SPDKPGGSPSASR	R	R	95.00%	2	0.252	0	1	0	0	2	1,322.57	49	61	TRUE	
SNU216_PC1_02	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	1	1	1	0.01%	2.47%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	5.02	0.306	0	0	1	0	2	3,132.14	621	646	TRUE	
SNU216_PC1_02	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	4	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENR	R	S	95.00%	6.19	0.582	0	0	1	0	2	3,005.40	1141	1166	TRUE	
SNU216_PC1_02	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	4	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENRSVSGI	R	V	94.50%	5.73	0.029	0	0	0	1	2	4,396.09	1141	1179	TRUE	
SNU216_PC1_02	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	4	0.02%	1.94%	SVSGFLHFDTATK	R	V	95.00%	2.64	0.375	0	2	0	0	2	1,489.67	1167	1179	TRUE	
SNU216_PC1_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	5	5	0.03%	3.72%	DSGNWDTSGSELSEGELEK	K	R	95.00%	3.35	0.341	0	1	0	0	2	2,119.83	908	926	TRUE	
SNU216_PC1_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	5	5	0.03%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	95.00%	3.78	0.379	0	1	0	0	2	2,275.94	908	927	TRUE	
SNU216_PC1_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	5	5	0.03%	3.72%	HKSDSPESDAEREK	R	D	95.00%	2.79	0.334	0	1	1	0	2	1,854.63	863	876	TRUE	
SNU216_PC1_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	5	5	0.03%	3.72%	SDSPESDAEREK	K	D	95.00%	2.19	0.273	0	1	0	0	2	1,429.55	865	876	TRUE	
SNU216_PC1_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.90%	2	2	2	0.01%	2.11%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	2.76	0.214	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216_PC1_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.90%	2	2	2	0.01%	2.11%	VASSPVMVSNPATR	K	M	95.00%	2.2	0.298	0	1	0	0	2	1,495.70	526	539	TRUE	
SNU216_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	3	3	0.02%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	5.78	0.381	0	0	1	0	2	3,369.45	35	69	TRUE	
SNU216_PC1_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	3	3	0.02%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	6.26	0.44	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216_PC1_02	Isoform 1 of Trinucleotide repeat-containing 6B p	IPI00385511	186,687.20	100.00%	2	2	2	0.01%	2.05%	DEEPSGWEEPSPQSISR	K	K	95.00%	4.16	0.467	0	1	0	0	2	2,009.81	905	921	TRUE	
SNU216_PC1_02	Isoform 1 of Trinucleotide repeat-containing 6B p	IPI00385511	186,687.20	100.00%	2	2	2	0.01%	2.05%	SSSSTGSEVGGQSTGSNHK	R	A	88.10%	3.39	0.0313	0	1	0	0	2	1,873.76	597	615	TRUE	
SNU216_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	3.94%	ALQLSNSPGASSAFLK	K	A	95.00%	3.59	0.377	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	3.94%	DEDEGIPSENEEEKK	R	M	95.00%	2.48	0.247	0	1	0	0	2	1,827.72	2342	2356	TRUE	
SNU216_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	3.94%	FLSHSTDSLNK	K	I	95.00%	2.65	0.143	0	1	0	0	2	1,328.59	1929	1939	TRUE	
SNU216_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	3.94%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.51	0.186	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	3.94%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	4.85	0.408	0	0	0	1	2	4,169.94	1604	1643	TRUE	
SNU216_PC1_02	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	6	6	6	0.04%	3.94%	SGSLDSELSVSPK	K	R	95.00%	2.93	0.383	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216_PC1_02	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	1	1	1	0.01%	1.46%	EYGSTSSIDVQGMPEQSFFDILNEFR	R	S	95.00%	5.5	0.0045	0	1	0	0	2	3,076.33	201	226	TRUE	
SNU216_PC1_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	RPESPSEISPIK	K	G	94.30%	2.3	0.199	0	2	0	0	2	1,499.65	262	273	TRUE	
SNU216_PC1_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	4.48	0.233	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.88%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	5.23	0.0009	0	1	0	0	2	2,342.95	1355	1377	TRUE	
SNU216_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.88%	EASPAPLAQGEPGREDLPTRLPALGEAHVSF	R	A	95.00%	2.84	0.195	0	0	0	1	2	3,956.94	1200	1237	TRUE	
SNU216_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.88%	GAVAAEGASDTER	R	E	95.00%	2.47	0.4	0	1	0	0	2	1,313.54	907	919	TRUE	
SNU216_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.88%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	4.21	0.469	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216_PC1_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	5	6	6	0.04%	5.88%	KENPSPLFSIK	R	K	95.00%	2.52	0.245	0	1	0	0	2	1,339.67	810	820	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	6	7	7	0.04%	4.04%	ESTPSEEPSPPHNSK	K	H	95.00%	2.64	0.234	0	1	0	0	2	1,702.70	1495	1509	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	6	7	7	0.04%	4.04%	KDSSSEVFSDAAK	R	E	95.00%	3.78	0.475	0	1	0	0	2	1,450.61	921	933	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	6	7	7	0.04%	4.04%	SKSYDEGLDDYREDAK	R	L	95.00%	3.25	0.268	0	0	1	0	2	1,970.80	878	893	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	6	7	7	0.04%	4.04%	TQSPHSPKEESER	K	K	95.00%	3.32	0.461	0	1	1	0	2	1,591.67	1093	1105	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	6	7	7	0.04%	4.04%	TQSPHSPKEESERK	K	L	92.30%	2.7	0.21	0	0	1	0	2	1,719.77	1093	1106	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	6	7	7	0.04%	4.04%	TTSPPLSIPTTHLIHQPAGSR	R	S	95.00%	3.43	0.392	0	0	1	0	2	2,291.15	316	336	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	5	5	6	0.04%	5.46%	EYDSGDTDEIIAMK	R	K	95.00%	3.13	0.512	0	2	0	0	2	1,746.62	249	262	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	5	5	6	0.04%	5.46%	FLETDSEEEQEEVNEKK	R	T	95.00%	2.65	0.273	0	1	0	0	2	2,242.87	759	775	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	5	5	6	0.04%	5.46%	LQDSSSEEEDVTEETDHR	R	N	95.00%	3.51	0.613	0	1	0	0	2	2,345.77	953	970	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	5	5	6	0.04%	5.46%	NDREYDSGDTDEIIAMK	R	K	95.00%	3.43	0.323	0	1	0	0	2	2,131.79	246	262	TRUE	
SNU216_PC1_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	5	5	6	0.04%	5.46%	NSSPGEASLLEK	R	E	95.00%	2.46	0.391	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216_PC1_02	Isoform 1 of STE20-like serine/threonine-protein k	IPI00022827	142,697.80	99.80%	1	2	2	0.01%	1.86%	VDEDSAEDTQSNDGKEVVEVGQK	K	L	95.00%	4.6	0.365	0	1	1	0	2	2,558.08	561	583	TRUE	
SNU216_PC1_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	99.80%	1	1	1	0.01%	1.32%	SGEGEVSGLMR	R	K	95.00%	1.98	0.344	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216_PC1_02	zinc finger transcription factor TRPS1	IPI00296078	143,023.70	99.80%	1	1	1	0.01%	1.16%	TLRDSPNVEAAHLAR	K	P	95.00%	3.5	0.349	0	0	1	0	2	1,729.84	839	853	TRUE	
SNU216_PC1_02	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	5	0.03%	1.05%	LEHSSFPEGPGPGSGDEANGPR	R	G	95.00%	5.43	0.528	0	2	2	0	2	2,273.95	2158	2179	TRUE	
SNU216_PC1_02	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	5	0.03%	1.05%	LEHSSFPEGPGPGSGDEANGPRGER	R	Q	95.00%	3.37	0.438	0	0	1	0	2	2,616.11	2158	2182	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	3	3	3	0.02%	2.72%	LHPDGSPDVAGEK	K	G	89.40%	1.75	0.302	0	1	0	0	2	1,401.60	594	606	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	3	3	3	0.02%	2.72%	SSDPGPDIGVVEESPEKGDEISLR	R	R	95.00%	4.11	0.325	0	0	1	0	2	2,592.17	988	1011	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	100.00%	3	3	3	0.02%	2.72%	SVSGSPESDELQELR	R	T	95.00%	2.24	0.334	0	1	0	0	2	1,712.74	834	848	TRUE	
SNU216_PC1_02	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	3	3	3	0.02%	1.26%	GGSWIQEINVAEK	K	N	95.00%	2.24	0.28	0	1	0	0	2	1,510.69	4024	4036	TRUE	
SNU216_PC1_02	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	3	3	3	0.02%	1.26%	RLSFAVPFR	K	E	91.40%	1.94	0.192	0	1	0	0	2	1,172.60	891	899	TRUE	
SNU216_PC1_02	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	3	3	3	0.02%	1.26%	SSFDWLTGSSTDPLVDHTSPSSDSLLFAHK	R	R	91.40%	5.66	0.034	0	0	0	1	2	3,314.49	2654	2683	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.70%	2	2	2	0.01%	1.86%	IMEETSGMEEEEEEEESIAAVPGR	R	R	95.00%	3.98	0.444	0	0	1	0	2	2,632.07	1049	1071	TRUE	
SNU216_PC1_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	99.70%	2	2	2	0.01%	1.86%	QPSSPSHNTNLR	R	A	93.20%	2.03	0.25	0	1	0	0	2	1,417.62	135	146	TRUE	
SNU216_PC1_02	Hypothetical protein CCDC87	IPI00302151	96,371.60	99.40%	1	1	1	0.01%	1.53%	RGQSMPSLREGWR	R	L	95.00%	2.35	0.284	0	0	0	1	2	1,639.75	308	320	TRUE	
SNU216_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	5	5	5	0.03%	8.41%	DTPGGRSDGDTDSVSTMVVHDVEEITGTQI	R	T	95.00%	3.57	0.208	0	0	0	1	2	4,327.91	850	890	TRUE	
SNU216_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	5	5	5	0.03%	8.41%	LDSSPVLSPGNK	K	A	95.00%	2.93	0.48	0	1	0	0	2	1,293.61	775	786	TRUE	
SNU216_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	5	5	5	0.03%	8.41%	NLLHADSNGYTNLPDVVQPSHSPTENSK	R	G	95.00%	4.57	0.316	0	0	1	0	2	3,114.42	897	924	TRUE	
SNU216_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	5	5	5	0.03%	8.41%	SDSVLPASHGHLPQAGSLER	R	N	95.00%	3.68	0.283	0	0	1	0	2	2,138.00	747	766	TRUE	
SNU216_PC1_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	5	5	5	0.03%	8.41%	SNSAWQIYLQR	R	R	95.00%	2.02	0.273	0	1	0	0	2	1,445.66	699	709	TRUE	
SNU216_PC1_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	5	5	6	0.04%	7.06%	AAKPGPAEAPSPTASPSGDASPPATAPYDPI	R	V	95.00%	3.87	0.231	0	0	1	0	2	3,011.38	1094	1124	TRUE	
SNU216_PC1_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	5	5	6	0.04%	7.06%	ALPTSKPEGSLHSSPVGPSSSK	R	G	95.00%	3.42	0.171	0	0	1	0	2	2,230.08	895	916	TRUE	
SNU216_PC1_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	5	5	6	0.04%	7.06%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.46	0.407	0	0	1	0	2	2,672.22	157	179	TRUE	
SNU216_PC1_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	5	5	6	0.04%	7.06%	TGSGSPFAGNSPAR	K	E	95.00%	2.12	0.287	0	2	0	0	2	1,465.55	1265	1278	TRUE	
SNU216_PC1_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	5	5	6	0.04%	7.06%	YREYSPPYAPSHQQYPPSHATPLPK	K	K	95.00%	3.32	0.202	0	0	0	1	2	2,991.38	155	179	TRUE	
SNU216_PC1_02	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.39%	AQSPVSGPNVAHLTDGATLNDR	R	S	95.00%	5.08	0.541	0	0	1	0	2	2,300.07	1045	1066	TRUE	
SNU216_PC1_02	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.39%	EVQDKDYPLTPPPSPTVDEPK	K	I	95.00%	3.86	0.34	0	0	1	0	2	2,512.09	1757	1777	TRUE	
SNU216_PC1_02	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.39%	SLPSHMEEAPNVFQLYQR	K	P	95.00%	3.45	0.194	0	0	1	0	2	2,226.01	1729	1746	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	AALAPAKESPR	R	K	95.00%	2.1	0.32	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	KLGAGEGGEASVSPEK	K	T	95.00%	4.31	0.407	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	KLGAGEGGEASVSPEKTSTTSK	K	G	91.20%	2.44	0.19	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	KLSGDQPAAR	R	T	95.00%	2.1	0.327	0	1	0	0	2	1,122.53	1271	1280	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	KSAEPSANTTLVSETEEEGSVPAFGAAAK	R	P	95.00%	4.05	0.34	0	0	1	0	2	2,958.36	159	187	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	LDSSPSVSSTLAAK	K	D	95.00%	2.72	0.418	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	LGAGEGGEASVSPEK	K	T	95.00%	3.74	0.529	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.6	0.368	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	PTSSPAKGPPQK	K	A	95.00%	2.56	0.171	0	1	0	0	2	1,274.61	503	514	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	QEAKPQQAAGMLSPK	K	T	93.70%	2.41	0.207	0	1	0	0	2	1,663.79	1168	1182	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	SLGNILQAKPTSSPAK	K	G	95.00%	3.49	0.466	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.17	0.374	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	TSQVGAASAPAKESPR	K	K	95.00%	3.23	0.407	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	TSQVGAASAPAKESPRK	K	G	95.00%	3.42	0.422	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216_PC1_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	15	20	20	0.12%	10.70%	TVANLLSGKSPR	K	K	95.00%	2.96	0.324	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216_PC1_02	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	1	1	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	3.35	0.27	0	0	0	1	2	2,846.26	686	709	TRUE	
SNU216_PC1_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.00%	2	2	2	0.01%	5.53%	DGLAPEKTSPDRDK	R	K	80.60%	2.34	0.208	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216_PC1_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.00%	2	2	2	0.01%	5.53%	EQSEVSVSPR	K	A	95.00%	2.18	0.229	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216_PC1_02	glutamyl-prolyl tRNA synthetase	IPI00013452	170,593.20	100.00%	1	1	1	0.01%	1.46%	TGKEYIPGQPPLSQSSDSSPTR	K	N	87.20%	3.86	0.0136	0	1	0	0	2	2,412.11	868	889	TRUE	
SNU216_PC1_02	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	2	2	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	4.68	0.634	0	1	1	0	2	3,106.31	797	824	TRUE	
SNU216_PC1_02	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	2	2	2	0.01%	1.61%	STPAPKEEEKVNEEQWSLR	R	E	95.00%	2.73	0.413	0	0	1	0	2	2,337.08	636	654	TRUE	
SNU216_PC1_02	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	2	2	2	0.01%	1.61%	SVVDMDLDDTDDGDDNAPLFYQPGKR	R	G	95.00%	5.42	0.523	0	0	1	0	2	2,978.24	2486	2511	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	ADIDVSGPKVDVDVPDVNIEGPDAK	K	L	95.00%	4.18	0.316	0	0	1	0	2	2,644.24	1750	1774	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	3.97	0.45	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	AEAPLPSPK	K	L	95.00%	2.05	0.314	0	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	AGLRVSAPEVSVGHK	K	G	95.00%	3.33	0.368	0	0	1	0	2	1,586.81	80	94	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	APDVDVNIAGPDAALKVDVKSPK	K	T	95.00%	5.29	0.479	0	0	1	0	2	2,399.22	2128	2150	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.58	0.393	0	3	1	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	ASLGSLEGEAEAESSPKGK	K	F	95.00%	3.43	0.308	0	0	2	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	95.00%	4.37	0.0038	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	FKAEAPLPSPK	K	L	95.00%	2.42	0.326	0	1	1	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.26	0.155	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	GHYEVTGSDDETGK	K	L	95.00%	2.66	0.479	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	GHYEVTGSDDETGKLQGSGVSLASKK	K	K	95.00%	4.91	0.47	0	0	2	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	94.20%	3.23	0.139	0	0	0	1	2	2,730.26	2905	2930	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	GKGGVTGSPEASISGSK	K	G	95.00%	3.83	0.148	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	GPAFNMASPESDFGINLK	K	G	95.00%	3.48	0.409	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00055610	312,537.10	100.00%	28	31	35	0.22%	12.40%	ISAPNVDFNLEGPK	R	V	95.00%	2.44	0.402	0	1	0	0	2	1,580.74	2518	2531	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	ISMQDVDLSLGSPK	K	L	95.00%	3.05	0.447	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	ISMSEVDLNVAAPK	R	V	95.00%	3.25	0.402	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	MSLPDVDLDLKGPK	K	M	95.00%	2.56	0.366	0	1	0	0	2	1,607.78	820	833	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	MYFPDVEFDIKSPK	K	F	95.00%	3.06	0.266	0	1	1	0	2	1,795.80	2159	2172	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	SKGHYEVTGSDDETGK	K	L	95.00%	3.12	0.276	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.64	0.0953	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	SNSFSDER	R	E	95.00%	2.29	0.428	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	95.00%	5	0.0775	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	VDINTPDVDVHGPDWHLK	K	M	95.00%	3.22	0.256	0	0	1	0	2	2,136.98	1833	1850	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	VEAPSLDVHMDSPDINIEGPDVK	K	I	95.00%	3.86	0.498	0	0	1	0	2	2,557.15	2020	2042	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	VKTPEMIIQKPK	K	I	95.00%	3.02	0.499	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216_PC1_02	313 kDa protein	IPI00555610	312,537.10	100.00%	28	31	35	0.22%	12.40%	VSVGAPDLSLEASEGSIKLPK	K	M	95.00%	3.05	0.196	0	0	1	0	2	2,177.11	2456	2476	TRUE	
SNU216_PC1_02	Novel protein	IPI00409607,IPI00642366	166,735.90	99.70%	2	2	2	0.01%	1.88%	LNQSSPDNVTDTK	K	G	93.20%	2.14	0.196	0	1	0	0	2	1,498.64	584	596	TRUE	
SNU216_PC1_02	Novel protein	IPI00409607,IPI00642366	166,735.90	99.70%	2	2	2	0.01%	1.88%	YDGESDKEQFDDDQK	K	V	95.00%	3.58	0.349	0	1	0	0	2	1,898.70	1133	1147	TRUE	
SNU216_PC1_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSLTNDVAK	K	Q	95.00%	5.01	0.133	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216_PC1_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	4.1	0.0748	0	1	0	0	2	1,896.90	850	867	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.61	0.455	0	0	1	1	2	1,836.88	210	226	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	3.79	0.475	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	3.45	0.423	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	5	6	7	0.04%	9.75%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.09	0.446	0	2	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	5	6	7	0.04%	9.75%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.13	0.394	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	5	6	7	0.04%	9.75%	EVELVSE	K	-	95.00%	2.07	0.234	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	5	6	7	0.04%	9.75%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	4.64	0.507	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216_PC1_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	5	6	7	0.04%	9.75%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	2.96	0.273	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC1_02	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NSSDQEGNNISSSSGHR	K	V	95.00%	3.49	0.488	0	1	0	0	2	1,855.72	275	291	TRUE	
SNU216_PC1_02	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	NTPVSPGSTFPDVKPDLEDVDGVLFVSFESK	K	E	95.00%	4.54	0.508	0	0	1	0	2	3,402.60	641	671	TRUE	
SNU216_PC1_02	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	100.00%	3	3	3	0.02%	2.03%	SILPYPVSPK	K	Q	95.00%	2.59	0.209	0	1	0	0	2	1,180.60	917	926	TRUE	
SNU216_PC1_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	3.54%	MESSFGSPSKQESSESLPK	K	E	95.00%	4.33	0.428	0	0	1	0	2	2,121.90	471	489	TRUE	
SNU216_PC1_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	3.54%	RHEHPPNPPVSPGK	K	T	95.00%	2.74	0.32	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216_PC1_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	3.54%	SKSEDMDNVQSK	R	R	95.00%	2.44	0.221	0	1	0	0	2	1,447.58	557	568	TRUE	
SNU216_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.28%	AFGPGLQGGSAGSPAR	K	F	95.00%	2.7	0.306	0	1	0	0	2	1,509.68	1071	1086	TRUE	
SNU216_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.28%	EGPYSISVLYGDEEVPRSPFK	R	V	95.00%	3.84	0.394	0	1	1	0	2	2,449.13	1515	1535	TRUE	
SNU216_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.28%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	3.54	0.404	0	0	1	0	2	2,547.16	2310	2332	TRUE	
SNU216_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.28%	GAGSYTIMVLFADQATPTSPIR	R	V	95.00%	3.77	0.458	0	1	1	0	2	2,376.13	841	862	TRUE	
SNU216_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.28%	IPEISIQDMTAQVTSPSGK	K	T	95.00%	4.76	0.383	0	1	0	0	2	2,081.98	2165	2183	TRUE	
SNU216_PC1_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.28%	YGGDEIPFSPYR	K	V	95.00%	2.54	0.209	0	1	0	0	2	1,480.61	1621	1632	TRUE	
SNU216_PC1_02	PREDICTED: similar to Forkhead box protein K1 (h	IPI00549473,IPI00556645	59,700.80	99.80%	2	3	3	0.02%	5.09%	EGSPIPHDPEFGSK	R	L	95.00%	2.99	0.487	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216_PC1_02	PREDICTED: similar to Forkhead box protein K1 (h	IPI00549473,IPI00556645	59,700.80	99.80%	2	3	3	0.02%	5.09%	SAPASPTHPGLMSPR	R	S	95.00%	2.22	0.345	0	1	0	0	2	1,585.72	253	267	TRUE	
SNU216_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	9	0.06%	3.42%	EEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.5	0.515	0	1	0	0	2	2,439.00	15	38	TRUE	
SNU216_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	9	0.06%	3.42%	REEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	5.44	0.423	0	0	1	0	2	2,595.10	14	38	TRUE	
SNU216_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	9	0.06%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.42	0.53	0	0	3	1	2	2,751.20	13	38	TRUE	
SNU216_PC1_02	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	6	9	0.06%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.3	0.579	0	2	1	0	2	1,971.82	39	56	TRUE	
SNU216_PC1_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	99.80%	1	2	4	0.02%	2.77%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	6.15	0.517	0	1	3	0	2	2,697.03	317	338	TRUE	
SNU216_PC1_02	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	99.10%	2	2	2	0.01%	0.43%	NVDNAEGSDTDY	R	-	95.00%	2.18	0.231	0	1	0	0	2	1,379.46	4850	4861	TRUE	
SNU216_PC1_02	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	99.10%	2	2	2	0.01%	0.43%	SESLTAESR	R	L	81.50%	1.78	0.219	0	1	0	0	2	1,059.44	1489	1497	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	GGIDNPAITSDQELDDK	K	K	95.00%	3.97	0.448	0	1	0	0	2	1,867.80	1209	1225	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	GGIDNPAITSDQELDDKK	K	M	95.00%	4.51	0.445	0	1	1	0	2	1,995.89	1209	1226	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	HRGSEEDPLLSPVETWK	R	G	95.00%	3.84	0.313	0	0	1	0	2	2,059.95	1192	1208	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	RTHSDASDDEAFTTSK	R	T	95.00%	3.85	0.45	0	1	1	0	2	1,847.74	1170	1185	TRUE	
SNU216_PC1_02	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	7	0.04%	3.40%	THSDASDDEAFTTSK	R	T	95.00%	2.93	0.516	0	1	0	0	2	1,771.61	1171	1185	TRUE	
SNU216_PC1_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	2	2	2	0.01%	2.53%	LSSSDSIGPDVTDILSDIAEEASK	R	L	95.00%	5.06	0.0089	0	1	0	0	2	2,529.15	769	792	TRUE	
SNU216_PC1_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	2	2	2	0.01%	2.53%	NSSQSGGKPGSSPITK	K	H	95.00%	3.03	0.375	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216_PC1_02	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	2	2	0.01%	4.03%	MTNNEDSLSPTSSTLSNLELDAAEKDR	R	K	95.00%	5.54	0.0725	0	0	1	0	2	3,018.32	549	575	TRUE	
SNU216_PC1_02	Isoform 1 of MKL/myocardin-like protein 2	IPI00335641,IPI00418489	114,444.40	99.80%	2	2	2	0.01%	4.03%	SGEISLPIKEEPSPISK	K	M	95.00%	2.84	0.423	0	1	0	0	2	1,890.95	873	889	TRUE	
SNU216_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	3	6	8	0.05%	4.62%	GLQSLPTHDPSPLQR	K	Y	95.00%	3.04	0.387	0	1	1	0	2	1,725.83	1067	1081	TRUE	
SNU216_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	3	6	8	0.05%	4.62%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.83	0.424	0	2	1	0	2	1,993.88	1024	1042	TRUE	
SNU216_PC1_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	3	6	8	0.05%	4.62%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.78	0.563	0	2	1	0	2	2,329.01	1043	1066	TRUE	
SNU216_PC1_02	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	HRSLTAHSLLPLAEK	R	Q	95.00%	3.89	0.35	0	0	1	1	2	1,752.92	1379	1393	TRUE	
SNU216_PC1_02	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	SLTAHSLLPLAEK	R	Q	94.30%	2.58	0.156	0	1	0	0	2	1,459.76	1381	1393	TRUE	
SNU216_PC1_02	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	5	5	0.03%	2.02%	VLAVSLINEALDKGSPEK	R	T	95.00%	3.2	0.275	0	1	1	0	2	1,963.02	482	499	TRUE	
SNU216_PC1_02	CAD protein	IPI00301263	242,982.50	100.00%	4	8	8	0.05%	2.43%	ASDPGLPAEEPK	R	E	95.00%	1.99	0.399	0	1	0	0	2	1,290.56	1858	1869	TRUE	
SNU216_PC1_02	CAD protein	IPI00301263	242,982.50	100.00%	4	8	8	0.05%	2.43%	IHRASDPGLPAEEPK	R	E	95.00%	3.12	0.321	0	1	1	0	2	1,696.81	1855	1869	TRUE	
SNU216_PC1_02	CAD protein	IPI00301263	242,982.50	100.00%	4	8	8	0.05%	2.43%	IHRASDPGLPAEEPKEK	R	S	95.00%	4.36	0.348	0	1	1	1	2	1,953.94	1855	1871	TRUE	
SNU216_PC1_02	CAD protein	IPI00301263	242,982.50	100.00%	4	8	8	0.05%	2.43%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	4.61	0.429	0	0	1	1	2	4,052.11	1898	1934	TRUE	
SNU216_PC1_02	132 kDa protein	IPI00002054	131,684.30	99.80%	2	3	3	0.02%	3.26%	HGLQLGAQSPGR	R	G	95.00%	1.85	0.259	0	1	0	0	2	1,300.62	1070	1081	TRUE	
SNU216_PC1_02	132 kDa protein	IPI00002054	131,684.30	99.80%	2	3	3	0.02%	3.26%	TPLDLFAHFGPEPGDHSDPLPPSAPSPTR	K	E	95.00%	6.43	0.56	0	0	1	1	2	3,132.45	179	207	TRUE	
SNU216_PC1_02	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	AESDGEEKEEVKEELGR	K	P	95.00%	3.03	0.418	0	0	1	0	2	2,013.87	2599	2615	TRUE	
SNU216_PC1_02	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	SLSDNGQPGTPDPADSGGTSAK	K	E	95.00%	3.17	0.391	0	2	0	0	2	2,138.89	1732	1753	TRUE	
SNU216_PC1_02	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	3	3	4	0.02%	2.33%	SVGDESWEQTQEGDVGALYHEQLALK	K	T	95.00%	5.26	0.417	0	0	1	0	2	2,969.32	783	808	TRUE	
SNU216_PC1_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	1.94%	DYDDMSPR	R	R	93.50%	1.63	0.28	0	1	0	0	2	1,078.35	279	286	TRUE	
SNU216_PC1_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	1.94%	RDYDDMSPR	R	R	95.00%	2.08	0.235	0	1	0	0	2	1,234.46	278	286	TRUE	
SNU216_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	5	8	8	0.05%	11.20%	AESAPLPVSADDTPEVLNR	R	A	95.00%	3.1	0.433	0	1	0	0	2	2,060.95	39	57	TRUE	
SNU216_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	5	8	8	0.05%	11.20%	ESESEAKVDGETASDSESR	K	A	95.00%	3.75	0.397	0	1	0	0	2	2,092.82	20	38	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	5	8	8	0.05%	11.20%	VAHEPVAPPEDKESESEAK	R	V	95.00%	5.79	0.482	0	1	1	0	2	2,128.94	8	26	TRUE	
SNU216_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	5	8	8	0.05%	11.20%	VAHEPVAPPEDKESESEAKVDGETASDSESF	R	A	95.00%	4.58	0.452	0	0	1	1	2	3,362.45	8	38	TRUE	
SNU216_PC1_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	5	8	8	0.05%	11.20%	VDGETASDSESR	K	A	95.00%	2.18	0.359	1	1	0	0	2	1,332.50	27	38	TRUE	
SNU216_PC1_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.70%	2	2	2	0.01%	4.76%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	3.62	0.323	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216_PC1_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.70%	2	2	2	0.01%	4.76%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	93.00%	3.25	0.165	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216_PC1_02	60S ribosomal protein L5	IPI00000494	34,232.30	100.00%	1	1	1	0.01%	6.08%	RFPGYDSESKEFNAEVHR	K	K	95.00%	3.3	0.252	0	0	0	1	2	2,247.98	178	195	TRUE	
SNU216_PC1_02	Ras GTPase-activating-like protein IQGAP1	IPI00009342	189,258.60	100.00%	1	1	1	0.01%	0.91%	SKSVKEDSNLTLQEK	K	K	95.00%	2.32	0.273	0	0	1	0	2	1,785.86	1441	1455	TRUE	
SNU216_PC1_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	9	0.06%	6.90%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.1	0.358	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216_PC1_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	9	0.06%	6.90%	EEPVSSGPEEAVGK	K	S	95.00%	3.23	0.474	0	2	0	0	2	1,574.60	565	578	TRUE	
SNU216_PC1_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	9	0.06%	6.90%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	2.52	0.394	0	1	0	0	2	2,064.89	561	578	TRUE	
SNU216_PC1_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	9	0.06%	6.90%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	3.72	0.264	0	2	2	0	2	2,553.13	511	533	TRUE	
SNU216_PC1_02	Baculoviral IAP repeat-containing protein 6	IPI00299635	527,609.80	99.80%	1	1	1	0.01%	0.39%	LEGDSDDLLEDSDSEEHSR	K	S	95.00%	3.57	0.159	0	0	1	0	2	2,227.85	441	459	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	EQPEMEDANSEK	R	S	95.00%	2.85	0.474	0	1	0	0	2	1,486.54	11	22	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.43	0.475	0	0	1	0	2	3,454.32	11	39	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	EVIDASDKEGMSPAK	K	R	95.00%	2.46	0.18	0	1	0	0	2	1,656.72	82	96	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	EVIDASDKEGMSPAKR	K	T	95.00%	3.2	0.313	0	1	1	0	2	1,812.82	82	97	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	KKSPIINESR	R	S	95.00%	2.39	0.342	0	1	1	0	2	1,251.65	275	284	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	SINEENGEVSEDQSQNK	K	H	95.00%	3.11	0.329	0	1	0	0	2	1,986.79	23	39	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	TRSPSPDDILER	R	V	93.30%	2	0.26	0	1	0	0	2	1,545.63	576	587	TRUE	
SNU216_PC1_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	8	10	10	0.06%	9.14%	VQSGMGLILQGYESGSEEEGEIHEK	K	A	95.00%	3.92	0.21	0	0	1	0	2	2,786.22	129	153	TRUE	
SNU216_PC1_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	2	3	3	0.02%	5.26%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.36	0.347	0	1	1	0	2	2,172.03	344	362	TRUE	
SNU216_PC1_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	2	3	3	0.02%	5.26%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	4.79	0.144	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	3	5	5	0.03%	2.48%	DVDDGSGSPHSPHQLSSK	R	S	95.00%	2.63	0.404	0	1	1	0	2	1,929.80	2022	2039	TRUE	
SNU216_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	3	5	5	0.03%	2.48%	KEKPELSEPSHLNGPSSDPEAAFLSR	K	D	95.00%	5.66	0.515	0	0	1	1	2	2,902.36	1996	2021	TRUE	
SNU216_PC1_02	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	3	5	5	0.03%	2.48%	SGSGGGSAKEPQER	R	S	95.00%	3.02	0.387	0	1	0	0	2	1,555.64	183	197	TRUE	
SNU216_PC1_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	5	5	0.03%	4.15%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	2.17	0.298	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216_PC1_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	5	5	0.03%	4.15%	PGTPSDHQSQEASQFER	R	K	95.00%	4.08	0.496	0	1	1	0	2	1,980.81	380	396	TRUE	
SNU216_PC1_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	5	5	0.03%	4.15%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	95.00%	5.55	0.0374	0	0	1	1	2	3,783.64	362	396	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	118,981.40	99.80%	2	2	2	0.01%	1.36%	SPEPEATLTFPFLDK	K	M	95.00%	3.3	0.458	0	1	0	0	2	1,771.82	718	732	TRUE	
SNU216_PC1_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	118,981.40	99.80%	2	2	2	0.01%	1.36%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	3.81	0.482	0	0	1	0	2	2,323.20	713	732	TRUE	
SNU216_PC1_02	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	4.97	0.453	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216_PC1_02	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	4.37	0.43	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216_PC1_02	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	VKVEPADSVESSPPSITHSPQNELK	K	G	95.00%	5.25	0.445	0	0	1	0	2	2,755.32	408	432	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	DSSFTEVPRSPK	R	H	95.00%	2.48	0.376	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	EMEKSFDEQNVPK	R	R	95.00%	3.19	0.216	0	1	0	0	2	1,660.69	309	321	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.18	0.441	0	1	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	SLTQPITTEEVVIAATLQASAHQK	R	A	95.00%	3.46	0.472	0	0	1	0	2	2,616.33	340	363	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	SNEEEETSDSSLEK	R	Q	95.00%	2.82	0.216	0	0	1	0	2	1,663.62	56	69	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	SPSFGDPQLSPEAR	R	P	95.00%	2.7	0.236	0	1	0	0	2	1,567.68	261	274	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	SPSFGDPQLSPEARPR	R	C	95.00%	2.77	0.346	0	2	1	0	2	1,820.83	261	276	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.52	0.552	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.06	0.239	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216_PC1_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	10	12	13	0.08%	7.94%	YGSFEEAEASYPILNR	K	A	95.00%	3.59	0.146	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216_PC1_02	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	HLESSDEDEKMDEESAQIEEVLQR	K	G	95.00%	4.59	0.541	0	0	1	0	2	2,926.23	1792	1815	TRUE	
SNU216_PC1_02	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	SSLLPTDYLVEINK	R	I	95.00%	2.02	0.241	0	1	0	0	2	1,671.82	1865	1878	TRUE	
SNU216_PC1_02	Histone-lysine N-methyltransferase, H3 lysine-4 s	IPI00179016	186,147.10	99.80%	1	1	1	0.01%	0.94%	PSTPAEEDEDDPEQEK	R	E	95.00%	2.34	0.49	0	1	0	0	2	1,895.71	914	929	TRUE	
SNU216_PC1_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	99.80%	2	3	4	0.02%	6.72%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	4.6	0.451	0	0	1	0	2	3,457.45	100	129	TRUE	
SNU216_PC1_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	99.80%	2	3	4	0.02%	6.72%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	5	0.435	0	0	2	1	2	3,733.61	163	195	TRUE	
SNU216_PC1_02	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	AGTPIRDSHSPDLQLPTPEVIPSSGSK	K	L	95.00%	5.03	0.409	0	0	1	0	2	2,866.40	310	336	TRUE	
SNU216_PC1_02	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	2	2	0.01%	5.92%	DSHSPDLQLPTPEVIPSSGSK	R	L	95.00%	3.76	0.337	0	0	1	0	2	2,271.05	316	336	TRUE	
SNU216_PC1_02	ABT1-associated protein	IPI00024167	98,800.70	99.80%	2	2	2	0.01%	4.82%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	3.94	0.41	0	0	1	0	2	3,169.31	651	677	TRUE	
SNU216_PC1_02	ABT1-associated protein	IPI00024167	98,800.70	99.80%	2	2	2	0.01%	4.82%	TLDSGTSEIVKSPR	R	I	95.00%	3.13	0.402	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	AATTATPAATTSPK	K	E	95.00%	3.11	0.405	0	1	0	0	2	1,368.64	1111	1124	TRUE	
SNU216_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	FSPFLQTAEDNTQDEVAGAPADHHGPSDE	K	L	95.00%	4.6	0.238	0	0	0	1	2	4,129.72	1193	1230	TRUE	
SNU216_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	IHEKDPNSATATAPPSPLK	K	R	84.90%	2.68	0.148	0	0	1	0	2	2,054.00	146	164	TRUE	
SNU216_PC1_02	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	100.00%	4	4	4	0.02%	5.45%	QVAGDAPVEQATAETASPVHR	R	E	95.00%	3.81	0.228	0	0	1	0	2	2,214.02	1359	1379	TRUE	
SNU216_PC1_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	4	7	0.04%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.14	0.425	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216_PC1_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	4	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	92.60%	4.82	0.0668	0	0	1	0	2	2,727.34	846	871	TRUE	
SNU216_PC1_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	4	7	0.04%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.64	0.42	0	0	3	2	2	3,113.52	846	874	TRUE	
SNU216_PC1_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	3	3	0.02%	2.05%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.66	0.434	0	1	1	0	2	1,860.84	550	565	TRUE	
SNU216_PC1_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	3	3	0.02%	2.05%	TSMGGTQQQFVEGVR	R	M	95.00%	3.12	0.348	0	1	0	0	2	1,704.74	551	565	TRUE	
SNU216_PC1_02	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	3	3	4	0.02%	5.49%	FHSPSTTWSPNKDTPQEK	R	K	95.00%	3.72	0.168	0	0	2	0	2	2,166.95	479	496	TRUE	
SNU216_PC1_02	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	3	3	4	0.02%	5.49%	SSSNDSVDEETAESDTSPVLEK	K	E	95.00%	4.49	0.0519	0	1	0	0	2	2,405.97	85	106	TRUE	
SNU216_PC1_02	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	3	3	4	0.02%	5.49%	TEELIESPKLESSEGEIIQTVDR	K	Q	95.00%	5.58	0.443	0	0	1	0	2	2,682.28	287	309	TRUE	
SNU216_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	6	8	9	0.06%	3.08%	DLEPGEVPSDSDEDGEHK	R	S	95.00%	3.03	0.511	0	2	0	0	2	2,034.78	1372	1389	TRUE	
SNU216_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	6	8	9	0.06%	3.08%	EVEKQEDTENHPKTPESAPENK	K	D	95.00%	4.01	0.344	0	0	1	1	2	2,616.15	1606	1627	TRUE	
SNU216_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	6	8	9	0.06%	3.08%	HGSFHEDEDPIGSPR	R	L	95.00%	3.37	0.44	0	1	1	0	2	1,759.71	1266	1280	TRUE	
SNU216_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	6	8	9	0.06%	3.08%	RPQSPGASPSQAER	R	L	95.00%	2.99	0.265	0	1	0	0	2	1,547.70	733	746	TRUE	
SNU216_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	6	8	9	0.06%	3.08%	SLVHEVGKPPQDVTDDSPPSK	R	K	95.00%	4.92	0.493	0	0	1	0	2	2,312.08	1206	1226	TRUE	
SNU216_PC1_02	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	6	8	9	0.06%	3.08%	SVYATMGDHENRSPVKEPVEQPR	R	V	95.00%	3.08	0.217	0	0	1	0	2	2,706.23	1906	1928	TRUE	
SNU216_PC1_02	SCC-112 protein	IPI00303063	150,835.50	99.80%	1	1	1	0.01%	1.50%	EQSSEAAETGVSENEENPVR	R	I	95.00%	2.56	0.286	0	1	0	0	2	2,241.91	1184	1203	TRUE	
SNU216_PC1_02	PREDICTED: hypothetical protein LOC440193 isofo	IPI00737659,IPI00740019	228,218.60	99.80%	1	1	1	0.01%	0.64%	DYLQAQHPPSPIK	R	S	95.00%	3.1	0.318	0	1	0	0	2	1,573.74	218	230	TRUE	
SNU216_PC1_02	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	2	3	3	0.02%	2.49%	KITPPSSPHSLTSTLVSLGHEEALEMAGSK	R	N	92.60%	4.84	0.066	0	0	1	1	2	3,184.56	1057	1086	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_02	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	2	3	3	0.02%	2.49%	MSPSGGAPQTTPTLR	K	S	95.00%	2.7	0.397	0	1	0	0	2	1,580.71	1153	1167	TRUE	
SNU216_PC1_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	4	4	4	0.02%	6.75%	IGSDPLAYEPK	R	E	89.20%	1.91	0.204	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216_PC1_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	4	4	4	0.02%	6.75%	INNYLTVPAHKLDSPTMSR	K	A	95.00%	4.91	0.465	0	0	1	0	2	2,237.08	184	202	TRUE	
SNU216_PC1_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	4	4	4	0.02%	6.75%	LDSPTMSR	K	A	81.10%	1.66	0.21	0	1	0	0	2	986.4014	195	202	TRUE	
SNU216_PC1_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	4	4	4	0.02%	6.75%	SKETSSPGTDDVFTPAPSDSPSSQR	R	I	95.00%	5.68	0.0656	0	0	1	0	2	2,660.14	270	294	TRUE	
SNU216_PC1_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	2.80%	FSPDSQYIDNR	R	S	95.00%	2.82	0.51	0	1	0	0	2	1,421.57	382	392	TRUE	
SNU216_PC1_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	2.80%	RSSDPALIGLSTSVSDSNFSSEEPSR	R	K	91.30%	5.73	0.029	0	0	1	0	2	2,805.26	142	167	TRUE	
SNU216_PC1_02	Isoform 1 of Partitioning-defective 3 homolog	IPI00154915,IPI00179063,IP	151,151.90	100.00%	3	3	3	0.02%	2.80%	RSSDPALIGLSTSVSDSNFSSEEPSRK	R	N	95.00%	7.02	0.494	0	0	1	0	2	2,933.35	142	168	TRUE	
SNU216_PC1_02	dispatched B	IPI00304587	152,006.50	99.80%	2	3	3	0.02%	1.78%	ARQDSQGEEAEPLPASPEAPAHSPK	R	A	95.00%	4.38	0.387	0	0	1	1	2	2,759.17	1248	1272	TRUE	
SNU216_PC1_02	dispatched B	IPI00304587	152,006.50	99.80%	2	3	3	0.02%	1.78%	QDSQGEEAEPLPASPEAPAHSPK	R	A	95.00%	4.29	0.4	0	0	1	0	2	2,452.07	1250	1272	TRUE	
SNU216_PC1_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	75,196.90	99.80%	2	2	2	0.01%	2.93%	KVSPIKINLK	R	N	95.00%	2.23	0.392	0	0	1	0	2	1,219.72	430	439	TRUE	
SNU216_PC1_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	75,196.90	99.80%	2	2	2	0.01%	2.93%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	3.57	0.459	0	1	0	0	2	1,941.82	643	660	TRUE	
SNU216_PC1_02	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	3	3	3	0.02%	3.28%	ILIPSDIESSK	R	S	91.40%	2.06	0.187	0	1	0	0	2	1,281.63	459	469	TRUE	
SNU216_PC1_02	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	3	3	3	0.02%	3.28%	NQESSSDEQTPSRDDDSQSRSPSR	R	S	95.00%	3.11	0.235	0	0	1	0	2	2,775.11	1293	1316	TRUE	
SNU216_PC1_02	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	3	3	3	0.02%	3.28%	WDSESNSERDVTK	K	N	95.00%	2.45	0.162	0	1	0	0	2	1,632.65	885	897	TRUE	
SNU216_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	5	7	8	0.05%	4.69%	GEEGSDDDETENGPKPK	K	K	95.00%	3.86	0.398	0	2	1	0	2	1,883.72	988	1004	TRUE	
SNU216_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	5	7	8	0.05%	4.69%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.12	0.43	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	5	7	8	0.05%	4.69%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	3.76	0.485	0	1	1	0	2	2,436.01	935	955	TRUE	
SNU216_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	5	7	8	0.05%	4.69%	KGSGSEQEGEDEEGGER	R	K	95.00%	3.29	0.515	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216_PC1_02	136 kDa protein	IPI00005625	135,683.90	100.00%	5	7	8	0.05%	4.69%	RKGSGSEQEGEDEEGGER	R	K	95.00%	2.99	0.497	0	1	0	0	2	2,095.76	960	977	TRUE	
SNU216_PC2_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.90%	1	2	2	0.01%	3.21%	DKSPVREPIDNLTPEER	K	D	95.00%	4.37	0.412	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC2_02	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	99.80%	2	4	4	0.03%	5.75%	ETPRPEGGSPSPAGTPPQPK	R	R	95.00%	4.04	0.327	0	1	1	0	2	2,066.95	476	495	TRUE	
SNU216_PC2_02	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	99.80%	2	4	4	0.03%	5.75%	GAGAAGLPQPPRESPQLHER	R	E	95.00%	2.5	0.323	0	1	1	0	2	2,148.03	456	475	TRUE	
SNU216_PC2_02	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	3	3	0.02%	3.35%	RPNEDSDEDEEK	K	G	95.00%	2.93	0.291	0	1	0	0	2	1,542.56	686	697	TRUE	
SNU216_PC2_02	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	100.00%	2	3	3	0.02%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	3.91	0.378	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216_PC2_02	Isoform MEA6 of Cutaneous T-cell lymphoma-ass	IPI00006122,IPI00401163,IP	86,771.70	99.90%	1	1	1	0.01%	1.74%	AFLSPPTLLEGPLR	R	L	95.00%	2.37	0.356	0	1	0	0	2	1,590.83	533	546	TRUE	
SNU216_PC2_02	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	99.80%	1	2	3	0.02%	1.63%	ASPSPQPSSQPLQIHR	R	Q	95.00%	3.84	0.445	0	1	2	0	2	1,809.86	143	158	TRUE	
SNU216_PC2_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	4	0.03%	5.22%	AAKPGPAEAPSPTASPSGDASPPATAPYDPF	R	V	90.10%	4.82	0.0644	0	0	1	0	2	3,011.38	1094	1124	TRUE	
SNU216_PC2_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	4	0.03%	5.22%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.63	0.349	0	0	2	0	2	2,672.22	157	179	TRUE	
SNU216_PC2_02	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	3	4	0.03%	5.22%	TGSGGSPFAGNSPAR	K	E	94.00%	2.1	0.223	0	1	0	0	2	1,465.55	1265	1278	TRUE	
SNU216_PC2_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	166,297.40	100.00%	3	3	3	0.02%	6.09%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	3.22	0.461	0	1	0	0	2	1,852.82	748	765	TRUE	
SNU216_PC2_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	166,297.40	100.00%	3	3	3	0.02%	6.09%	KKSSSDPGIPGGPQAIPATNSPDHSDHTLSV	R	T	95.00%	4.88	0.297	0	0	0	1	2	4,320.98	461	503	TRUE	
SNU216_PC2_02	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	166,297.40	100.00%	3	3	3	0.02%	6.09%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	5.35	0.441	0	0	1	0	2	3,031.34	432	458	TRUE	
SNU216_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	8	8	0.05%	14.70%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	5.05	0.455	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	8	8	0.05%	14.70%	AVAEEDNGSIGEETDSSPGR	K	K	95.00%	4.58	0.448	0	1	0	0	2	2,099.84	652	671	TRUE	
SNU216_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	8	8	0.05%	14.70%	DLTHSDSESSLHMSDR	R	Q	95.00%	3.27	0.146	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	8	8	0.05%	14.70%	KAVAEEDNGSIGEETDSSPGR	K	K	95.00%	4.21	0.0986	0	1	0	0	2	2,227.94	651	671	TRUE	
SNU216_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	8	8	0.05%	14.70%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	5.13	0.545	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	8	8	0.05%	14.70%	LPDSPALAK	K	K	95.00%	1.8	0.289	0	1	0	0	2	991.4862	572	580	TRUE	
SNU216_PC2_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	8	8	0.05%	14.70%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	2.44	0.278	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216_PC2_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	3.93	0.345	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC2_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.56	0.302	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216_PC2_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.05	0.181	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216_PC2_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	93.90%	2.89	0.195	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216_PC2_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	SPGAPGPLTLK	R	E	95.00%	1.84	0.295	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	AETPTESVSEPEVATK	K	Q	95.00%	3.81	0.489	0	2	0	0	2	1,754.77	193	208	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	EGEDGDQPTTPPKPLK	K	T	84.40%	2.52	0.155	0	1	0	0	2	1,788.81	174	189	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	5.34	0.435	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	EWNGVVSESDSPVK	K	R	95.00%	3.67	0.475	0	2	0	0	2	1,612.69	41	54	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	KQSQIQNQQGEDSGSDPEDTY	R	-	95.00%	3.68	0.079	0	1	0	0	2	2,513.93	899	919	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	TIQEVLEEQSEDEDR	R	E	95.00%	3.35	0.286	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	TIQEVLEEQSEDEDREAK	R	R	95.00%	3.68	0.21	0	1	0	0	2	2,227.96	132	149	TRUE	
SNU216_PC2_02	DNA ligase 1	IPI00219841	101,738.20	100.00%	8	8	12	0.08%	12.40%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.44	0.509	0	3	0	0	2	1,839.79	63	79	TRUE	
SNU216_PC2_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	3	3	0.02%	4.00%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.58	0.385	0	1	1	0	2	1,925.87	463	479	TRUE	
SNU216_PC2_02	Monocarboxylate transporter 1	IPI00024650	53,960.00	99.80%	2	3	3	0.02%	4.00%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4.12	0.421	0	0	1	0	2	2,270.04	460	479	TRUE	
SNU216_PC2_02	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	100.00%	2	2	2	0.01%	4.92%	IQQFDDGGSDEEDIWEEK	R	H	95.00%	4.23	0.44	0	1	0	0	2	2,219.87	529	546	TRUE	
SNU216_PC2_02	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	100.00%	2	2	2	0.01%	4.92%	SSSGSTDSEESTDSEEEDGAK	R	Q	95.00%	2.85	0.393	0	1	0	0	2	2,213.77	558	578	TRUE	
SNU216_PC2_02	Zinc finger protein 148	IPI00010833	88,976.40	99.80%	2	2	2	0.01%	2.90%	GGLLTSEEDSGFSTSPK	K	D	95.00%	2.46	0.308	0	1	0	0	2	1,791.77	292	308	TRUE	
SNU216_PC2_02	Zinc finger protein 148	IPI00010833	88,976.40	99.80%	2	2	2	0.01%	2.90%	GGLLTSEEDSGFSTSPKDNSLPK	K	K	95.00%	4.31	0.366	0	0	1	0	2	2,446.10	292	314	TRUE	
SNU216_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	10	14	0.09%	13.60%	DNQESSDAELSSSEYIK	K	T	95.00%	3.47	0.34	0	1	0	0	2	1,981.79	622	638	TRUE	
SNU216_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	10	14	0.09%	13.60%	KPGPPLSPEIR	R	S	95.00%	2.65	0.338	0	0	1	0	2	1,270.66	421	431	TRUE	
SNU216_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	10	14	0.09%	13.60%	KPSGSPDLWKLSPDQR	R	K	95.00%	3.89	0.352	0	0	1	2	2	1,890.91	441	456	TRUE	
SNU216_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	10	14	0.09%	13.60%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.73	0.415	0	0	3	0	2	2,526.21	280	301	TRUE	
SNU216_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	10	14	0.09%	13.60%	KTSPASLDFPESQK	R	S	95.00%	3.86	0.453	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	10	14	0.09%	13.60%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.45	0.549	0	1	2	0	2	2,314.11	199	219	TRUE	
SNU216_PC2_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	7	10	14	0.09%	13.60%	TAPTLSPEHWK	K	A	95.00%	2.63	0.336	0	1	1	0	2	1,346.61	400	410	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	DKEVSDDEAEEK	R	E	95.00%	3	0.357	1	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	DKEVSDDEAEEKEDK	R	E	95.00%	4.16	0.427	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	EEKESEDKPEIEDVGSDEEEEK	K	K	95.00%	5.48	0.366	0	1	1	0	2	2,659.07	370	391	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	ERDKEVSDDEAEEK	K	E	95.00%	3.79	0.385	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.11	0.377	0	2	1	0	2	2,272.89	373	391	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.56	0.419	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	EVSDDEAEEKEDK	K	E	95.00%	3.45	0.445	0	1	0	0	2	1,602.61	351	363	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	14	15	0.10%	5.15%	EVSDDEAEEKEDKEEEK	K	E	95.00%	4.24	0.415	0	1	1	0	2	2,117.83	351	367	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	AVTPVPTK	R	T	95.00%	1.52	0.308	1	0	0	0	2	892.4541	524	531	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.61	0.431	0	0	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.43	0.534	0	0	1	0	2	3,607.64	74	113	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	ETESAPGSPR	K	A	95.00%	2	0.425	0	1	0	0	2	1,110.45	514	523	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	GLSASLPDLDSENWIEVK	K	K	95.00%	2.72	0.189	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	HSSNPPLESHVGWVMDSR	R	E	95.00%	4.46	0.496	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	KNTFTAWSDEESDYEIDDRDVNK	R	I	83.20%	3.85	0.0887	0	0	1	0	2	2,937.15	620	642	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.36	0.321	0	0	1	0	2	2,405.19	130	152	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	NTFTAWSDEESDYEIDDR	K	D	95.00%	4.08	0.162	0	2	0	0	2	2,272.86	621	638	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	4.2	0.254	0	0	1	0	2	2,809.06	621	642	TRUE	
SNU216_PC2_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	11	14	0.09%	14.70%	SLPTTVPESPNYR	R	N	95.00%	2.36	0.383	0	3	0	0	2	1,540.70	766	778	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.80%	1	1	1	0.01%	2.00%	SMPVLGSVSSVTK	K	T	95.00%	2.24	0.29	0	1	0	0	2	1,371.66	506	518	TRUE	
SNU216_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	2	2	2	0.01%	2.52%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	4.06	0.122	0	1	0	0	2	2,128.98	652	671	TRUE	
SNU216_PC2_02	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	2	2	2	0.01%	2.52%	SHSPSASQSGSQLR	R	N	95.00%	2.51	0.372	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	7	8	9	0.06%	11.20%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	5.54	0.406	0	0	1	1	2	4,118.93	479	519	TRUE	
SNU216_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	7	8	9	0.06%	11.20%	GSSEQAESDNMDVPPEDDSK	K	E	95.00%	3.01	0.219	0	1	0	0	2	2,216.82	55	74	TRUE	
SNU216_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	7	8	9	0.06%	11.20%	GSSEQAESDNMDVPPEDDSKEGAGEQK	K	T	95.00%	3.99	0.303	0	0	1	0	2	2,916.14	55	81	TRUE	
SNU216_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	7	8	9	0.06%	11.20%	PMEEDGEEKSPSK	R	K	95.00%	3.4	0.503	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	7	8	9	0.06%	11.20%	PMEEDGEEKSPSKK	R	K	95.00%	3.13	0.35	0	1	0	0	2	1,670.70	373	386	TRUE	
SNU216_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	7	8	9	0.06%	11.20%	RPMEEDGEEKSPSK	K	K	95.00%	3.81	0.4	0	2	0	0	2	1,698.70	372	385	TRUE	
SNU216_PC2_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	7	8	9	0.06%	11.20%	VLQDMGLPTGAEGRDSSK	K	G	95.00%	3.83	0.397	0	1	0	0	2	1,940.88	461	478	TRUE	
SNU216_PC2_02	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	2	3	3	0.02%	2.63%	HLSPYATLTVGDSSHK	K	T	95.00%	3.72	0.421	0	1	1	0	2	1,792.83	818	833	TRUE	
SNU216_PC2_02	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	2	3	3	0.02%	2.63%	WYDLMDNKDKGSS	R	-	95.00%	2.55	0.24	0	1	0	0	2	1,638.65	1092	1104	TRUE	
SNU216_PC2_02	KH-type splicing regulatory protein	IPI00479786,IPI00759502	73,805.40	100.00%	1	1	1	0.01%	1.83%	VQISPDSGGLPER	K	S	95.00%	2.32	0.292	0	1	0	0	2	1,434.66	178	190	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	21	0.13%	6.62%	LLEPLVTQVTTLVNTNSKGPSNK	R	K	95.00%	3.41	0.285	0	0	1	0	2	2,533.33	28	50	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	21	0.13%	6.62%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	4.9	0.586	0	2	1	0	2	2,141.98	652	670	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	21	0.13%	6.62%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.23	0.544	0	14	2	0	2	2,238.86	634	651	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	4	6	21	0.13%	6.62%	TSVQTEDDQLIAGQSAR	R	A	95.00%	3.71	0.475	0	1	0	0	2	1,898.85	654	670	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	3	4	5	0.03%	2.96%	QNPEQSADEDAEK	K	N	95.00%	3.2	0.427	0	1	0	0	2	1,540.58	161	173	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	3	4	5	0.03%	2.96%	QPLLLSEDEEDTK	K	R	90.20%	2.41	0.149	0	1	0	0	2	1,596.70	34	46	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	3	4	5	0.03%	2.96%	QPLLLSEDEEDTKR	K	V	95.00%	3.04	0.396	0	2	1	0	2	1,752.81	34	47	TRUE	
SNU216_PC2_02	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.90%	1	1	1	0.01%	0.99%	GGDVSPSPYSSSSWR	R	R	95.00%	3.19	0.294	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216_PC2_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	2	2	0.01%	3.36%	RPESPSEISPIKGSVR	K	T	95.00%	3.08	0.173	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216_PC2_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	2	2	0.01%	3.36%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.3	0.219	0	1	0	0	2	2,653.07	108	131	TRUE	
SNU216_PC2_02	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	100.00%	2	2	2	0.01%	4.03%	ASLSPDASDFEHITAETPSRPLSSTSNPFK	K	S	84.90%	3.13	0.169	0	0	1	0	2	3,269.50	241	270	TRUE	
SNU216_PC2_02	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	100.00%	2	2	2	0.01%	4.03%	TSPTPPESATTVK	R	S	94.40%	1.92	0.251	0	1	0	0	2	1,395.64	728	740	TRUE	
SNU216_PC2_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	99.80%	2	2	3	0.02%	2.22%	EYDSGDTDEIIAMK	R	K	95.00%	2.93	0.441	0	2	0	0	2	1,746.62	249	262	TRUE	
SNU216_PC2_02	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	99.80%	2	2	3	0.02%	2.22%	NSSPGEASLLEK	R	E	95.00%	2.35	0.346	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	4	6	6	0.04%	5.57%	MSSPEDDSDTKR	K	L	95.00%	2.46	0.41	0	1	1	0	2	1,527.51	382	393	TRUE	
SNU216_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	4	6	6	0.04%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	95.00%	3.58	0.22	0	0	1	0	2	2,928.28	227	252	TRUE	IPI00005648
SNU216_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	4	6	6	0.04%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	7.17	0.511	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216_PC2_02	103 kDa protein	IPI00646058	102,769.00	100.00%	4	6	6	0.04%	5.57%	SVVSFDKVKEPR	R	K	95.00%	2.57	0.333	0	1	1	0	2	1,470.74	601	612	TRUE	
SNU216_PC2_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	4	4	0.03%	4.62%	GPSQEEEDNHSDEEDR	K	A	95.00%	4.69	0.556	0	1	1	0	2	1,952.68	57	72	TRUE	
SNU216_PC2_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	4	4	0.03%	4.62%	SQDQDSEVNELSR	K	G	95.00%	2.98	0.306	0	1	0	0	2	1,586.63	78	90	TRUE	
SNU216_PC2_02	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	4	4	0.03%	4.62%	YEPSDKDRQSPPPAK	R	R	88.40%	2.14	0.231	0	1	0	0	2	1,794.81	833	847	TRUE	
SNU216_PC2_02	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	2	2	2	0.01%	3.30%	ETAAGGLTLKEERSPQTLAPVGEDAMK	K	T	95.00%	4.3	0.262	0	0	1	0	2	2,879.39	1098	1124	TRUE	
SNU216_PC2_02	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	2	2	2	0.01%	3.30%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	4.24	0.312	0	0	0	1	2	3,153.39	1111	1139	TRUE	
SNU216_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.44	0.337	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	EEPVSSGPEEAVGK	K	S	95.00%	2.51	0.345	0	2	0	0	2	1,574.60	565	578	TRUE	
SNU216_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	2.73	0.33	0	1	0	0	2	1,936.80	562	578	TRUE	
SNU216_PC2_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	6	7	0.04%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.49	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	4	4	4	0.03%	3.29%	GQGSSPVAMQK	R	A	95.00%	1.89	0.328	0	1	0	0	2	1,169.50	342	352	TRUE	
SNU216_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	4	4	4	0.03%	3.29%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	4.4	0.422	0	0	1	0	2	2,657.30	709	732	TRUE	
SNU216_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	4	4	4	0.03%	3.29%	SLLDASEEAIK	K	K	95.00%	2.44	0.227	0	1	0	0	2	1,255.58	721	731	TRUE	
SNU216_PC2_02	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	4	4	4	0.03%	3.29%	SLLDASEEAIKK	K	D	95.00%	2.24	0.401	0	1	0	0	2	1,383.68	721	732	TRUE	
SNU216_PC2_02	nuclear receptor co-repressor 2	IPI00001735	274,735.30	98.80%	1	1	1	0.01%	0.87%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	3.07	0.403	0	0	1	0	2	2,563.19	145	166	TRUE	
SNU216_PC2_02	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	99.80%	2	2	4	0.03%	6.22%	EMDESLANLSEDEYYSEEER	R	N	95.00%	4.44	0.0822	0	1	0	0	2	2,517.95	122	141	TRUE	
SNU216_PC2_02	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	99.80%	2	2	4	0.03%	6.22%	KLPPPPPQAPPEEENESEPEEPSGVEGAAFQ	K	L	95.00%	6.17	0.535	0	0	3	0	2	3,606.63	150	182	TRUE	
SNU216_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	AGLGSPERPPK	R	T	95.00%	2.2	0.218	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	LGGLRPESPESLTSVSR	R	T	94.20%	2.63	0.155	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216_PC2_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	14.20%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.79	0.596	0	1	0	0	2	2,383.10	72	94	TRUE	
SNU216_PC2_02	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	2	2	0.01%	4.05%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	2.45	0.399	0	1	0	0	2	1,927.99	389	406	TRUE	
SNU216_PC2_02	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	2	2	0.01%	4.05%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	6.86	0.516	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.9	0.486	0	1	1	1	2	1,836.88	210	226	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	2.97	0.292	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	3.38	0.415	0	1	0	0	2	1,646.83	234	247	TRUE	
SNU216_PC2_02	Sulfate transporter	IPI00032107	81,651.90	99.80%	2	3	4	0.03%	3.65%	DSAEGNDSVPSGIHLELQR	R	E	95.00%	3.8	0.39	0	1	0	0	2	2,167.93	15	33	TRUE	
SNU216_PC2_02	Sulfate transporter	IPI00032107	81,651.90	99.80%	2	3	4	0.03%	3.65%	EQHNVSPRDSAEGNDSVPSGIHLELQR	K	E	95.00%	4.64	0.166	0	0	2	1	2	3,195.35	7	33	TRUE	
SNU216_PC2_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	AIGSTSKPQESPK	R	G	95.00%	2.86	0.427	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC2_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	AIGSTSKPQESPKGK	R	R	95.00%	3.03	0.393	0	1	1	0	2	1,594.78	231	245	TRUE	
SNU216_PC2_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	4	4	0.03%	4.90%	KTPSKPPAQLSPSVPK	K	R	95.00%	3.79	0.316	0	0	1	0	2	1,741.93	256	271	TRUE	
SNU216_PC2_02	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	2	2	0.01%	5.90%	DVDVSEDSPPPLPER	K	T	95.00%	2.53	0.284	0	1	0	0	2	1,731.75	666	680	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	2	2	0.01%	5.90%	IADGVNEINTENMISSIEPEKQDSPPPKPPR	K	T	95.00%	5.19	0.408	0	0	0	1	2	3,482.65	309	339	TRUE	
SNU216_PC2_02	Isoform 1 of Ubiquitin conjugation factor E4 B	IPI00005715	146,189.50	99.80%	2	2	2	0.01%	2.92%	LAGGQTSQPTTPLTSPQR	R	E	95.00%	3.7	0.432	0	1	0	0	2	1,919.92	17	34	TRUE	
SNU216_PC2_02	Isoform 1 of Ubiquitin conjugation factor E4 B	IPI00005715	146,189.50	99.80%	2	2	2	0.01%	2.92%	TVEDLKNNESQWKDSPLATR	R	H	95.00%	4.82	0.474	0	0	1	0	2	2,411.12	789	808	TRUE	
SNU216_PC2_02	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	3	0.02%	2.90%	DMQPLSPISVHER	R	Y	95.00%	2.48	0.417	0	1	0	0	2	1,588.72	635	647	TRUE	
SNU216_PC2_02	Isoform 1 of Retinoblastoma-like protein 1	IPI00005139,IPI00375494	114,691.90	99.80%	2	2	3	0.02%	2.90%	VKSPVSLTAHSLIGASPK	K	Q	95.00%	5.24	0.488	0	0	2	0	2	1,872.00	747	764	TRUE	
SNU216_PC2_02	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ALSSDSILSPAPDAR	R	A	95.00%	3.2	0.493	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216_PC2_02	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ASTPDWVSEGPQPGLR	R	R	95.00%	3.01	0.319	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216_PC2_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	KAEENASQEEEEAAEDEGGEEDLASELR	K	V	95.00%	5.04	0.515	0	0	1	0	2	3,144.27	674	701	TRUE	
SNU216_PC2_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	KVSPIKINLK	R	N	95.00%	2.88	0.435	0	0	1	0	2	1,219.72	721	730	TRUE	
SNU216_PC2_02	Zinc finger and homeobox protein 3	IPI00301844,IPI00645281	104,657.30	100.00%	3	3	3	0.02%	5.86%	VPEASSEPFDTSSPQAGR	R	Q	95.00%	4.02	0.425	0	1	0	0	2	1,941.82	934	951	TRUE	
SNU216_PC2_02	Zinc finger protein 592	IPI00022460	137,553.70	98.80%	1	1	1	0.01%	1.82%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	5.34	0.444	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216_PC2_02	nadrin isoform 1	IPI00064767	95,437.00	100.00%	2	2	2	0.01%	7.95%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	N	90.30%	4.6	0.0768	0	0	0	1	2	4,132.98	549	592	TRUE	
SNU216_PC2_02	nadrin isoform 1	IPI00064767	95,437.00	100.00%	2	2	2	0.01%	7.95%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	4.81	0.301	0	0	1	0	2	2,687.26	674	699	TRUE	
SNU216_PC2_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	2	3	3	0.02%	3.32%	DTTSPMELAALEK	K	I	92.30%	2.26	0.182	0	1	0	0	2	1,485.65	427	439	TRUE	
SNU216_PC2_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	2	3	3	0.02%	3.32%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	2.96	0.412	0	1	1	0	2	2,045.97	488	506	TRUE	
SNU216_PC2_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.64	0.177	0	0	1	0	2	1,850.88	636	652	TRUE	
SNU216_PC2_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	2	2	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	3.71	0.251	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	4.77%	ESKGSPVFLPR	K	K	95.00%	2.08	0.224	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	4.77%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	95.00%	3.24	0.216	0	0	1	0	2	2,545.18	1069	1093	TRUE	
SNU216_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	4.77%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.45	0.51	0	0	2	0	2	2,300.18	381	401	TRUE	
SNU216_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	4.77%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	5.54	0.567	0	0	1	0	2	2,673.28	1068	1093	TRUE	
SNU216_PC2_02	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	5	5	6	0.04%	4.77%	LYNSEESRPYTNK	R	V	95.00%	2.9	0.241	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216_PC2_02	CLN3 protein	IPI00010906	19,287.30	99.80%	2	2	2	0.01%	8.84%	RFSDSEGEETVPEPR	R	L	95.00%	2.82	0.248	0	1	0	0	2	1,814.76	10	24	TRUE	
SNU216_PC2_02	CLN3 protein	IPI00010906	19,287.30	99.80%	2	2	2	0.01%	8.84%	RRFSDSEGEETVPEPR	R	L	95.00%	3.76	0.315	0	0	1	0	2	1,970.86	9	24	TRUE	
SNU216_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	7	0.04%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	91.80%	5.44	0.0458	0	0	1	0	2	2,877.32	600	626	TRUE	
SNU216_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	7	0.04%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	4.71	0.562	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	7	0.04%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	5.36	0.607	0	0	3	0	2	3,452.30	627	658	TRUE	
SNU216_PC2_02	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	7	0.04%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	6.71	0.482	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	10	22	0.14%	9.64%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.41	0.44	0	1	0	0	2	2,467.96	153	174	TRUE	
SNU216_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	10	22	0.14%	9.64%	EEDEPEERSGDETPGSEVPGDKAAEEQGDD	R	S	95.00%	5.46	0.538	0	0	1	0	2	3,870.51	153	187	TRUE	
SNU216_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	10	22	0.14%	9.64%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	4.22	0.407	0	0	1	1	2	2,624.06	152	174	TRUE	
SNU216_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	10	22	0.14%	9.64%	SGDETPGSEVPGDK	R	A	95.00%	3.41	0.589	1	3	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	10	22	0.14%	9.64%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	4.8	0.682	0	1	0	0	2	2,857.12	161	187	TRUE	
SNU216_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	10	22	0.14%	9.64%	SKSPLPPEEEAK	R	D	95.00%	2.59	0.21	0	1	0	0	2	1,391.65	226	237	TRUE	
SNU216_PC2_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	7	10	22	0.14%	9.64%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	5.88	0.5	0	0	1	11	2	4,198.92	226	261	TRUE	
SNU216_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	7	7	0.04%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	95.00%	7.48	0.0127	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	7	7	0.04%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.33	0.512	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	7	7	0.04%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.66	0.443	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC2_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	7	7	0.04%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.41	0.353	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC2_02	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	100.00%	2	2	2	0.01%	1.84%	ALVVPEPEPDSDSNQER	K	K	95.00%	3.48	0.537	0	1	0	0	2	1,961.85	126	142	TRUE	
SNU216_PC2_02	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	100.00%	2	2	2	0.01%	1.84%	KALVVPEPEPDSDSNQER	R	K	95.00%	3.3	0.219	0	0	1	0	2	2,089.94	125	142	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	4	5	5	0.03%	4.65%	IDDRDSDEEGASDR	K	R	95.00%	3.04	0.447	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	4	5	5	0.03%	4.65%	IDDRDSDEEGASDRR	K	G	80.30%	2.13	0.185	0	0	1	0	2	1,815.71	777	791	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	4	5	5	0.03%	4.65%	QKIDDRDSDEEGASDR	K	R	95.00%	3.18	0.397	0	1	1	0	2	1,915.77	775	790	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	100.00%	4	5	5	0.03%	4.65%	QPEKEEEEEAGESVEDIFSEVVGR	K	K	95.00%	3.14	0.339	0	0	1	0	2	2,801.20	632	655	TRUE	
SNU216_PC2_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	99.80%	1	1	1	0.01%	1.15%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.9	0.457	0	1	0	0	2	1,868.75	1461	1477	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	AEGEPQEESPLKSK	K	S	95.00%	2.89	0.219	0	1	0	0	2	1,608.72	169	182	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.26	0.304	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	DTFEHDPSESIDEFNK	K	S	95.00%	3.05	0.353	0	1	0	0	2	1,989.78	189	204	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	ETQSPEQVKSEK	K	L	95.00%	3.27	0.445	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.35	0.538	0	3	0	0	2	2,081.65	394	409	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	FNDSEGDDTEETEDYRQFR	K	K	95.00%	2.77	0.227	0	0	1	0	2	2,432.92	394	412	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.33	0.431	0	1	3	1	2	2,726.13	369	391	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	KAEGEPQEESPLK	K	S	91.50%	2.52	0.14	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	KAEGEPQEESPLKSK	K	S	95.00%	3.79	0.389	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	KETQSPEQVKSEK	K	L	95.00%	3.75	0.278	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	LKDLFDYSPPLHK	K	N	95.00%	2.79	0.226	0	2	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	NTPSQHSHSIQHSPER	K	S	92.20%	3.79	0.0213	0	1	0	0	2	1,921.83	256	271	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	5	0.525	0	3	1	0	2	2,257.84	392	409	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.66	0.161	0	0	1	1	2	2,903.23	181	204	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.82	0.333	0	1	1	0	2	2,160.92	205	224	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	YSPSQNSPIHHIPSR	R	R	95.00%	2.75	0.292	0	2	2	0	2	1,799.82	284	298	TRUE	
SNU216_PC2_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	25	34	0.22%	17.30%	YSPSQNSPIHHIPSRR	R	S	95.00%	3.62	0.414	0	0	0	1	2	1,955.92	284	299	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	4.61	0.392	0	0	0	1	2	2,989.46	206	231	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	5.01	0.503	0	0	1	0	2	2,522.20	2140	2161	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.54%	SPGSISYLPSFFTK	R	L	95.00%	2.65	0.312	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216_PC2_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	99.80%	2	2	2	0.01%	2.05%	RHEHPPNPPVSPGK	K	T	95.00%	2.82	0.281	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216_PC2_02	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	99.80%	2	2	2	0.01%	2.05%	SKSEDMDNVQSK	K	R	95.00%	2.77	0.19	0	1	0	0	2	1,447.58	557	568	TRUE	
SNU216_PC2_02	Isoform 1 of Transcription elongation factor A pr	IPI00333215	33,970.60	98.60%	1	1	1	0.01%	4.98%	KKEPAITSQNSPEAR	K	E	95.00%	3.07	0.273	0	0	1	0	2	1,735.84	90	104	TRUE	
SNU216_PC2_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.90%	2	2	2	0.01%	2.10%	AESLDDQMLSR	R	E	95.00%	2.4	0.321	0	1	0	0	2	1,344.55	719	729	TRUE	
SNU216_PC2_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.90%	2	2	2	0.01%	2.10%	SLDEADSENKEEVSPLGSK	R	A	95.00%	3.71	0.436	0	1	0	0	2	2,113.92	1197	1215	TRUE	
SNU216_PC2_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.73%	GISPVVSEHR	K	K	87.30%	1.78	0.244	0	1	0	0	2	1,160.55	781	790	TRUE	
SNU216_PC2_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.73%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	3.32	0.169	0	0	1	0	2	2,454.13	755	776	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	3	0.02%	3.73%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.48	0.559	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216_PC2_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.31%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	5.86	0.369	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216_PC2_02	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	4.31%	QDSDSDVVDIEEAEHDFMGEAHPVVFSR	R	Y	95.00%	6.27	0.475	0	0	1	0	2	3,240.35	458	485	TRUE	
SNU216_PC2_02	Ribosomal RNA upstream binding transcription fa	IPI00384556	75,941.80	100.00%	2	2	2	0.01%	3.82%	GKLPESPKR	R	A	84.70%	2.15	0.164	0	1	0	0	2	1,091.56	321	329	TRUE	
SNU216_PC2_02	Ribosomal RNA upstream binding transcription fa	IPI00384556	75,941.80	100.00%	2	2	2	0.01%	3.82%	LPESPKRAEEIWQQSVIGDYLAR	K	F	95.00%	3.31	0.269	0	0	1	0	2	2,765.37	323	345	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	AAVLSDSEDEEK	K	A	95.00%	1.89	0.37	0	1	0	0	2	1,452.52	394	405	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	AAVLSDSEDEEKASAK	K	K	95.00%	2.39	0.204	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	AAVLSDSEDEEKASAKK	K	S	95.00%	3.13	0.382	0	1	0	0	2	1,937.81	394	410	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	EAEDSDSDDNIKR	K	G	95.00%	2.53	0.331	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	EKTIASDSEEEAGK	R	E	95.00%	2.56	0.217	0	1	0	0	2	1,653.63	433	446	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	EKTIASDSEEEAGKELSDK	R	K	95.00%	3.35	0.359	0	1	0	0	2	2,225.91	433	451	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	FHSSDSEEEEHKK	K	Q	95.00%	2.35	0.29	0	2	0	0	2	1,748.62	360	372	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	GPASDSETEDASR	K	H	95.00%	2.29	0.471	0	3	0	0	2	1,401.52	310	322	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	HQASDSENEELPKPR	R	I	95.00%	3.86	0.298	0	1	1	0	2	1,816.79	232	246	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	HQASDSENEEPPKPR	R	M	95.00%	3.55	0.428	0	3	1	0	2	1,800.76	193	207	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	ISDSESEDPPR	R	H	93.00%	2.26	0.188	0	1	0	0	2	1,391.48	247	257	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	ISDSESEDPPRHQASDSENEELPKPR	R	I	95.00%	3.49	0.263	0	0	0	1	2	3,189.24	247	272	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	KAAVLSDSEDEEK	R	A	95.00%	2.68	0.383	0	1	0	0	2	1,580.61	393	405	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	MDSDEDEKEGEEEK	K	V	95.00%	3.22	0.411	0	2	1	0	2	1,765.60	375	388	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	NQASDSENEELPKPR	R	V	95.00%	2.98	0.305	0	3	1	0	2	1,873.74	284	298	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	QKMDSDEDEKEGEEEK	K	V	95.00%	3.79	0.183	0	0	1	0	2	2,005.76	373	388	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	TIASDSEEEAGK	K	E	95.00%	1.95	0.472	0	1	0	0	2	1,396.49	435	446	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	TIASDSEEEAGKELSDK	K	K	95.00%	3.76	0.327	0	1	1	0	2	1,968.77	435	451	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	TIASDSEEEAGKELSDKK	K	N	95.00%	2.79	0.205	0	1	0	0	2	2,096.87	435	452	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	VSDSESEGPQK	R	G	95.00%	2.01	0.369	0	1	0	0	2	1,242.49	299	309	TRUE	
SNU216_PC2_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	21	26	34	0.22%	23.30%	VVSDADDSDSDAVSDK	R	S	95.00%	2.02	0.312	0	1	0	0	2	1,784.61	413	428	TRUE	
SNU216_PC2_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.03%	5.13%	DVEDMELSDVEDDGSK	K	I	95.00%	3.17	0.473	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216_PC2_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.03%	5.13%	IISPGSSTPSSTR	K	S	95.00%	1.97	0.267	0	1	0	0	2	1,369.64	730	742	TRUE	
SNU216_PC2_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.03%	5.13%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	4.58	0.0848	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216_PC2_02	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	4	4	4	0.03%	5.13%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.4	0.529	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216_PC2_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	2	2	2	0.01%	6.91%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.28	0.362	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC2_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	2	2	2	0.01%	6.91%	SSPQLDPLR	R	K	88.90%	1.75	0.23	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC2_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	2	3	3	0.02%	5.39%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	4.91	0.587	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216_PC2_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	2	3	3	0.02%	5.39%	SRSRDDLYDQDDSR	R	D	95.00%	2.49	0.312	0	0	1	0	2	1,807.72	509	522	TRUE	
SNU216_PC2_02	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	2	2	3	0.02%	4.81%	SESELIDELSEDFDR	R	S	95.00%	3.33	0.439	0	2	0	0	2	1,863.75	342	356	TRUE	
SNU216_PC2_02	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	2	2	3	0.02%	4.81%	SLTPAVPVESKPDKPSGK	K	S	95.00%	3.01	0.45	0	0	1	0	2	1,916.97	111	128	TRUE	
SNU216_PC2_02	DEAH (Asp-Glu-Ala-His) box polypeptide 36	IPI00027415,IPI00217760	114,779.80	99.90%	1	1	1	0.01%	0.69%	FQDGYYS	R	-	95.00%	1.11	0.34	1	0	0	0	2	959.3183	1002	1008	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	ARSRTPPSAPSQSR	R	M	91.90%	2.47	0.174	0	0	1	0	2	1,657.72	2405	2418	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	DRSPPKSPEK	R	L	95.00%	3.06	0.241	0	0	1	0	2	1,220.57	402	411	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.94	0.414	0	0	1	0	2	2,259.04	1316	1334	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	ENSFGSPLEFR	R	N	95.00%	1.97	0.311	0	1	0	0	2	1,362.57	1324	1334	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.3	0.329	0	1	4	0	2	2,136.83	433	451	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	89.30%	5.08	0.052	0	0	1	0	2	3,012.35	374	401	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	QPSSPYEDKDKDK	K	K	95.00%	3.15	0.293	0	1	1	0	2	1,616.68	330	342	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	RVPSPTPAPK	K	E	87.00%	2.28	0.149	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	SGSSQELDVKPSASPQER	R	S	95.00%	2.79	0.288	0	1	0	0	2	2,061.85	1539	1556	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	SSSPVTELASR	R	S	95.00%	2.08	0.336	0	1	0	0	2	1,293.51	1101	1111	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	THTTALAGRSPSPASGR	K	R	95.00%	2.69	0.231	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC2_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	12	14	17	0.11%	6.32%	VKAQTPPGPSLSGSK	K	S	95.00%	3.35	0.357	0	0	1	0	2	1,533.77	999	1013	TRUE	
SNU216_PC2_02	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	ATLDEEDLVDSLSEGDAYPNGLQVNFHSPR	R	S	95.00%	5.36	0.486	0	0	1	0	2	3,368.50	21	50	TRUE	
SNU216_PC2_02	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	RATLDEEDLVDSLSEGDAYPNGLQVNFHSP	K	S	95.00%	8.61	0.597	0	0	1	1	2	3,524.60	20	50	TRUE	
SNU216_PC2_02	Zinc finger protein 217	IPI00025310	115,272.80	99.20%	2	2	2	0.01%	1.34%	AGAESPTMSVDGR	R	Q	95.00%	2.33	0.337	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216_PC2_02	Zinc finger protein 217	IPI00025310	115,272.80	99.20%	2	2	2	0.01%	1.34%	RAGAESPTMSVDGR	R	Q	83.60%	2.16	0.22	0	1	0	0	2	1,513.65	402	415	TRUE	
SNU216_PC2_02	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	3	3	0.02%	10.50%	NKDQSEQETSDADQHVTSNASDSESSYR	K	G	95.00%	5.06	0.408	0	0	1	0	2	3,195.26	689	716	TRUE	
SNU216_PC2_02	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	3	3	0.02%	10.50%	SKPSEPIQPVNTWEISSLPSSTVTSETLPSSLS	R	Y	90.50%	5.79	0.03	0	0	1	0	2	4,106.01	70	107	TRUE	
SNU216_PC2_02	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	3	3	0.02%	10.50%	YQDEDTPPQEHISPQITNEVIGPELVHVSEK	R	N	95.00%	4.44	0.428	0	0	1	0	2	3,608.68	110	140	TRUE	
SNU216_PC2_02	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	2	2	2	0.01%	9.77%	ARPSQFPEQSSSAQQNGSVSDISPVQAAK	R	K	95.00%	5.49	0.419	0	0	1	0	2	3,081.43	98	126	TRUE	
SNU216_PC2_02	Kinesin-like protein KIF2	IPI00010368	77,749.80	100.00%	2	2	2	0.01%	9.77%	ELTVDPTAAGDVRPIMHHPPNQIDDLETQV	K	D	95.00%	4.07	0.183	0	0	0	1	2	4,243.99	532	569	TRUE	
SNU216_PC2_02	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.90%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFK	R	S	95.00%	3.08	0.367	0	1	1	0	2	1,641.65	275	288	TRUE	
SNU216_PC2_02	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.90%	2	3	3	0.02%	2.76%	EREDSGDAEAHAFKSPSK	R	E	95.00%	2.89	0.184	0	0	1	0	2	2,040.87	275	292	TRUE	
SNU216_PC2_02	Isoform 1 of Zinc finger CCCH type antiviral prot	IPI00410067,IPI00410071	101,445.60	99.80%	1	1	1	0.01%	1.44%	ASLEDAPVDDLTR	R	K	95.00%	2.35	0.372	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216_PC2_02	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	100.00%	2	2	3	0.02%	4.87%	AVPMAPAPASPGSSNDSSAR	K	S	95.00%	3.74	0.116	0	1	0	0	2	1,949.84	750	769	TRUE	
SNU216_PC2_02	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	100.00%	2	2	3	0.02%	4.87%	KAPSTSHSGFPPVANGPRSPPSLR	R	C	95.00%	3.23	0.269	0	0	0	2	2	2,524.25	564	587	TRUE	
SNU216_PC2_02	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	100.00%	2	2	2	0.01%	5.70%	GSIDREDGSLQGPIGNQHIYQPVGKPDPAA	R	K	95.00%	4.77	0.349	0	0	0	1	2	3,518.71	842	874	TRUE	
SNU216_PC2_02	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	100.00%	2	2	2	0.01%	5.70%	QATVSWDSGGSDEAPPKPSRPGYPSPR	R	S	95.00%	3.39	0.307	0	0	1	0	2	2,906.31	698	724	TRUE	
SNU216_PC2_02	ribosomal protein S6 kinase, 90kDa, polypeptide :	IPI00017305,IPI00477982,IP	65,055.30	100.00%	1	1	1	0.01%	2.55%	TPKDSPGIPPSAGAHQLFR	R	G	95.00%	3.14	0.233	0	0	1	0	2	2,056.00	202	220	TRUE	
SNU216_PC2_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	1	1	1	0.01%	3.75%	EESDGEYDEFGR	R	K	95.00%	2.63	0.528	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC2_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	2.59	0.291	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216_PC2_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	99.80%	2	2	2	0.01%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	3.14	0.229	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC2_02	Exocyst complex component 2	IPI00215805	104,241.70	100.00%	1	1	1	0.01%	2.49%	MIQEVMHSLVKLTRGALLPLSIR	K	D	95.00%	3.59	0.274	0	0	1	0	2	2,781.43	506	528	TRUE	
SNU216_PC2_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	2	2	2	0.01%	2.04%	SASQSSLDKLDQELK	R	E	95.00%	3.01	0.263	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216_PC2_02	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	2	2	2	0.01%	2.04%	SASQSSLDKLDQELKEQQK	R	E	95.00%	2.45	0.24	0	0	1	0	2	2,242.06	714	732	TRUE	
SNU216_PC2_02	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	GRNDSGEENVPLDLTR	R	E	95.00%	2.62	0.211	0	1	0	0	2	1,851.82	17	32	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	2	2	0.01%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	2.73	0.248	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216_PC2_02	Importin beta-3	IPI00329200	126,524.70	100.00%	1	1	1	0.01%	3.47%	TASIKPEVALLDTQDMENMSDDDGWEFVN	K	T	95.00%	4.84	0.527	0	0	1	0	2	4,423.96	651	689	TRUE	
SNU216_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	5	6	8	0.05%	9.21%	DTSENADGQSDENKDDYTIPDEYR	K	I	95.00%	3.9	0.214	0	0	1	0	2	2,857.10	757	780	TRUE	
SNU216_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	5	6	8	0.05%	9.21%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.11	0.443	0	0	1	3	2	2,598.14	186	207	TRUE	
SNU216_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	5	6	8	0.05%	9.21%	SYSPDGK	R	E	95.00%	1.22	0.396	1	0	0	0	2	833.3078	596	602	TRUE	
SNU216_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	5	6	8	0.05%	9.21%	SYSPDGKESPSDK	R	K	95.00%	2.14	0.35	0	1	0	0	2	1,476.59	596	608	TRUE	
SNU216_PC2_02	Matrin-3	IPI00017297	94,626.70	100.00%	5	6	8	0.05%	9.21%	TDGSQKTESSTEGKEQEEK	K	S	95.00%	3.11	0.215	0	0	1	0	2	2,177.91	612	630	TRUE	
SNU216_PC2_02	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	5.26%	QSGDGQESTEPVENK	R	V	95.00%	3.5	0.52	0	1	0	0	2	1,684.67	147	161	TRUE	
SNU216_PC2_02	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	5.26%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	3.77	0.34	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216_PC2_02	Protein CASC3	IPI00289491	76,277.90	100.00%	3	4	4	0.03%	5.26%	YGSPPQRDPNWNGER	R	L	93.30%	2.3	0.197	0	0	1	0	2	1,852.78	263	277	TRUE	
SNU216_PC2_02	TAF3 RNA polymerase II, TATA box binding prote	IPI00477959	103,584.30	99.80%	2	3	3	0.02%	4.95%	IPPMLSPVHVQDSTDLAPPSPEPPMLAPVAI	K	S	95.00%	3.78	0.265	0	0	1	0	2	3,391.61	224	254	TRUE	
SNU216_PC2_02	TAF3 RNA polymerase II, TATA box binding prote	IPI00477959	103,584.30	99.80%	2	3	3	0.02%	4.95%	RPLDSPEAEELPAMK	K	R	95.00%	3	0.429	0	1	1	0	2	1,762.81	179	193	TRUE	
SNU216_PC2_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	4	0.03%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	3.8	0.359	0	2	1	0	2	1,811.70	491	505	TRUE	
SNU216_PC2_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	4	0.03%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.62	0.315	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216_PC2_02	Cleavage and polyadenylation specificity factor, 1	IPI00419531	88,489.50	99.90%	1	1	1	0.01%	2.94%	EADIDSSDESDIEEDIDQPSAHK	K	T	95.00%	3.29	0.457	0	0	1	0	2	2,784.97	414	436	TRUE	
SNU216_PC2_02	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	100.00%	2	2	2	0.01%	3.22%	IHSPIPDMSK	K	F	95.00%	1.92	0.35	0	1	0	0	2	1,204.54	663	672	TRUE	
SNU216_PC2_02	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	100.00%	2	2	2	0.01%	3.22%	LFPADTSPSTATK	K	I	95.00%	2.63	0.248	0	1	0	0	2	1,415.65	650	662	TRUE	
SNU216_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	7	9	0.06%	6.93%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7.12	0.632	0	0	1	0	2	3,607.53	769	801	TRUE	
SNU216_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	7	9	0.06%	6.93%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.39	0.543	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	7	9	0.06%	6.93%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.93	0.324	0	0	1	0	2	2,218.96	5	25	TRUE	
SNU216_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	7	9	0.06%	6.93%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.57	0.312	0	0	1	0	2	2,300.10	1254	1275	TRUE	
SNU216_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	7	9	0.06%	6.93%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.71	0.368	0	2	2	0	2	2,172.01	1255	1275	TRUE	
SNU216_PC2_02	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	6	7	9	0.06%	6.93%	SPAPGAPTRSPSTPAK	K	S	95.00%	3.33	0.482	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216_PC2_02	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	99.80%	1	1	2	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	5.8	0.0575	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216_PC2_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	2	2	2	0.01%	1.03%	GSGTASDDEFENLR	R	I	95.00%	2.23	0.253	0	1	0	0	2	1,577.61	1893	1906	TRUE	
SNU216_PC2_02	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	2	2	2	0.01%	1.03%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	5.71	0.0922	0	0	1	0	2	3,367.43	3796	3826	TRUE	
SNU216_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	7	10	0.06%	3.32%	FDHESSPGTDEDK	K	S	95.00%	2.67	0.448	0	2	0	0	2	1,543.56	740	752	TRUE	
SNU216_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	7	10	0.06%	3.32%	FDHESSPGTDEDKSG	K	-	95.00%	1.95	0.317	0	2	0	0	2	1,767.58	740	754	TRUE	
SNU216_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	7	10	0.06%	3.32%	KFDHESSPGTDEDK	K	S	95.00%	2.31	0.323	0	1	1	0	2	1,751.62	739	752	TRUE	
SNU216_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	7	10	0.06%	3.32%	KFDHESSPGTDEDKSG	K	-	95.00%	3.21	0.464	0	2	1	0	2	1,815.71	739	754	TRUE	
SNU216_PC2_02	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	5	7	10	0.06%	3.32%	RSETPPHWR	R	Q	95.00%	2.34	0.229	0	0	1	0	2	1,245.55	355	363	TRUE	
SNU216_PC2_02	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	4.61%	AQSSPASATFPVSVQEPPTKPR	R	F	95.00%	5.17	0.448	0	0	1	0	2	2,362.14	630	651	TRUE	
SNU216_PC2_02	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	4.61%	TQSAPLPQNAQALQHLVIQQQHQQFLEK	R	H	95.00%	4.41	0.386	0	0	1	0	2	3,303.66	465	492	TRUE	
SNU216_PC2_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	99.80%	1	1	2	0.01%	2.05%	LDQPVSAPPSPR	K	D	95.00%	2.63	0.23	0	2	0	0	2	1,423.60	235	246	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	AASPSPQSVR	K	R	95.00%	2	0.376	0	1	0	0	2	1,079.49	745	754	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	APQTSSSPPPVR	R	R	80.30%	2.26	0.149	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	APQTSSSPPPVRR	R	G	95.00%	2.44	0.322	0	2	0	0	2	1,459.71	699	711	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	HRPSPPATPPPK	R	T	95.00%	2.69	0.433	0	2	1	0	2	1,441.64	394	405	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	KEKTPELPEPSVK	K	V	95.00%	2.36	0.246	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	KETESEAEDNLDDLEK	K	H	95.00%	4.14	0.328	0	2	1	0	2	1,944.80	879	894	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.78	0.473	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	7	0.153	0	0	2	1	2	2,791.42	772	797	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	KVELSESEEDKGGK	R	M	95.00%	2.94	0.289	0	2	0	0	2	1,614.73	454	467	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	RESPSPAPKPR	K	K	95.00%	2.94	0.374	0	2	1	0	2	1,301.64	443	453	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	RRSPSPAPPPR	R	R	95.00%	2.13	0.249	0	0	1	0	2	1,377.62	567	577	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	RRTASPPPPPK	K	R	88.10%	2.46	0.159	0	1	0	0	2	1,363.63	621	631	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	RSPSPAPPPRR	R	R	92.00%	2.05	0.224	0	0	1	0	2	1,297.65	568	578	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	RTASPPPPPKR	R	R	95.00%	1.96	0.248	0	0	1	0	2	1,283.66	622	632	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	RYSPSPPPKR	R	R	95.00%	2.33	0.238	0	1	0	0	2	1,344.59	612	621	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	TASPPPPPKR	R	R	95.00%	1.83	0.285	0	2	0	0	2	1,127.56	623	632	TRUE	
SNU216_PC2_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	17	22	29	0.19%	18.10%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.26	0.517	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216_PC2_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	RYPSSISSSPQKDLTQAK	K	N	95.00%	3.75	0.314	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216_PC2_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.14	0.34	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216_PC2_02	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	3	5	5	0.03%	6.50%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	3.88	0.0646	0	1	0	0	2	2,612.09	462	486	TRUE	
SNU216_PC2_02	Condensin complex subunit 1	IPI00299524	157,173.30	100.00%	2	2	2	0.01%	3.07%	VVFSSDESSEEDLSAEMTEDETPK	K	K	95.00%	3.98	0.159	0	0	0	1	2	2,741.09	1363	1386	TRUE	
SNU216_PC2_02	Condensin complex subunit 1	IPI00299524	157,173.30	100.00%	2	2	2	0.01%	3.07%	YQPLASTASDNDFVTPEPR	R	R	92.30%	3.77	0.0238	0	1	0	0	2	2,187.96	1325	1343	TRUE	
SNU216_PC2_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	1	2	2	0.01%	4.41%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.54	0.566	0	1	1	0	2	2,873.37	59	85	TRUE	
SNU216_PC2_02	NOL1/NOP2/Sun domain family 2 protein	IPI00306369	86,472.80	100.00%	1	1	1	0.01%	2.61%	ESTQLSPADLTEGKPTDPSK	R	L	95.00%	2.92	0.221	0	1	0	0	2	2,181.00	451	470	TRUE	
SNU216_PC2_02	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	9.05%	NSNPVIAELSQAINSGTLLSKPSPPLPPKR	R	G	95.00%	4.35	0.195	0	0	1	0	2	3,205.70	269	298	TRUE	
SNU216_PC2_02	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	9.05%	RPLSSSHEASEGQAK	K	D	95.00%	2.8	0.381	0	1	0	0	2	1,663.74	173	187	TRUE	
SNU216_PC2_02	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	9.05%	SLPITIEMLK	R	V	89.50%	2.03	0.22	0	1	0	0	2	1,224.63	464	473	TRUE	
SNU216_PC2_02	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	100.00%	4	4	4	0.03%	9.05%	TRSLPITIEMLK	R	V	95.00%	2.59	0.2	0	1	0	0	2	1,481.78	462	473	TRUE	
SNU216_PC2_02	TATA element modulatory factor	IPI00010586	123,173.80	99.00%	2	2	2	0.01%	2.93%	KPFSVSSTPTMSR	R	S	80.60%	2.4	0.119	0	1	0	0	2	1,584.65	922	934	TRUE	
SNU216_PC2_02	TATA element modulatory factor	IPI00010586	123,173.80	99.00%	2	2	2	0.01%	2.93%	SASSR	S	Q	83.80%	1.24	0.183	1	0	0	0	1	667.1847	272	276	FALSE	IPI00017030
SNU216_PC2_02	TATA element modulatory factor	IPI00010586	123,173.80	99.00%	2	2	2	0.01%	2.93%	SVSEINSDDELSGK	R	G	95.00%	2.85	0.304	0	1	0	0	2	1,559.65	338	351	TRUE	
SNU216_PC2_02	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	99.80%	1	1	1	0.01%	0.97%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.92	0.509	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216_PC2_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.36	0.504	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC2_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.68	0.507	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC2_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.21	0.341	0	1	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC2_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.19%	EAALPPVSPLK	R	A	92.00%	2.01	0.207	0	1	0	0	2	1,201.62	1225	1235	TRUE	IPI00216654,IPI00292387
SNU216_PC2_02	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.19%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	3.36	0.185	0	0	1	0	2	2,623.30	1073	1096	TRUE	
SNU216_PC2_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,632.80	100.00%	2	2	2	0.01%	2.15%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	4.12	0.351	0	0	1	0	2	2,433.10	784	805	TRUE	
SNU216_PC2_02	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,632.80	100.00%	2	2	2	0.01%	2.15%	SQTTTERDSDTDVEEEELPVENR	R	E	88.10%	5.2	0.0389	0	0	1	0	2	2,759.15	445	467	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	AKPAMPQDSVPSPR	K	S	95.00%	2.95	0.419	0	1	1	0	2	1,560.72	470	483	TRUE	
SNU216_PC2_02	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	KAKPAMPQDSVPSPR	K	S	95.00%	3.43	0.278	0	0	1	0	2	1,688.82	469	483	TRUE	
SNU216_PC2_02	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	PAMPQDSVPSPR	K	S	95.00%	2.88	0.515	0	1	0	0	2	1,361.59	472	483	TRUE	
SNU216_PC2_02	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	TASFSESR	R	A	95.00%	1.66	0.341	0	1	0	0	2	964.3771	453	460	TRUE	
SNU216_PC2_02	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	3	5	0.03%	2.27%	EAARSPDKPGGSPSASR	R	R	95.00%	3.79	0.356	0	2	2	0	2	1,749.79	45	61	TRUE	
SNU216_PC2_02	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	3	5	0.03%	2.27%	SPDKPGGSPSASR	R	R	95.00%	1.91	0.301	0	1	0	0	2	1,402.54	49	61	TRUE	
SNU216_PC2_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.80%	2	2	2	0.01%	5.53%	DGLAPEKTSPDRDK	R	K	95.00%	2.69	0.391	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216_PC2_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.80%	2	2	2	0.01%	5.53%	EQSEVSVSPR	K	A	95.00%	2.19	0.279	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216_PC2_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	4	4	0.03%	8.25%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	5.68	0.555	0	0	1	1	2	3,923.85	419	453	TRUE	
SNU216_PC2_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	4	4	0.03%	8.25%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.14	0.402	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216_PC2_02	Novel protein	IPI00640055	81,090.60	99.70%	2	2	2	0.01%	2.15%	SPSPAHLPDDPK	R	V	94.40%	2.16	0.204	0	1	0	0	2	1,340.59	604	615	TRUE	
SNU216_PC2_02	Novel protein	IPI00640055	81,090.60	99.70%	2	2	2	0.01%	2.15%	SPSPAHLPDDPKVAEK	R	Q	95.00%	3.21	0.342	0	0	1	0	2	1,767.83	604	619	TRUE	
SNU216_PC2_02	Kinesin-like protein KIF23	IPI00293884	98,106.10	99.80%	1	2	2	0.01%	2.45%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	4.93	0.595	0	1	1	0	2	2,339.18	682	702	TRUE	
SNU216_PC2_02	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	99.80%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.8	0.468	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	99.80%	2	2	2	0.01%	2.54%	AEEEHLSSSGGLAK	R	N	95.00%	3.25	0.247	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216_PC2_02	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	99.80%	2	2	2	0.01%	2.54%	SLFFSSKEDIHTSESESK	K	I	95.00%	3.2	0.351	0	0	1	0	2	2,137.93	925	942	TRUE	
SNU216_PC2_02	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	2	2	2	0.01%	4.12%	ELPSLSPAPDTGLSPSKR	R	T	95.00%	3.48	0.201	0	0	1	0	2	1,931.95	253	270	TRUE	
SNU216_PC2_02	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	2	2	2	0.01%	4.12%	TASNPKVENEDEPVR	R	L	95.00%	2.98	0.354	0	1	0	0	2	1,764.78	292	306	TRUE	
SNU216_PC2_02	Condensin complex subunit 3	IPI00106495	114,338.40	99.80%	2	2	2	0.01%	1.38%	LNLAQFLNEDLS	K	-	95.00%	2.49	0.271	0	1	0	0	2	1,456.67	1004	1015	TRUE	
SNU216_PC2_02	Condensin complex subunit 3	IPI00106495	114,338.40	99.80%	2	2	2	0.01%	1.38%	SKLNLAQFLNEDLS	K	-	95.00%	3.25	0.337	0	1	0	0	2	1,671.80	1002	1015	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	ADSDGAKPEPVAMAR	K	S	95.00%	2.18	0.252	0	1	1	0	2	1,594.69	238	252	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	GEAERGSGGSSGDELR	R	E	95.00%	2.28	0.344	0	1	0	0	2	1,803.60	360	375	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	3.69	0.426	0	1	1	1	2	2,322.91	616	635	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	GRGPPSSSDSEPEAELER	R	E	95.00%	2.8	0.55	0	1	0	0	2	2,139.77	390	407	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	GSGGSSGDELREDDEPVK	R	K	95.00%	2.71	0.277	0	2	0	0	2	1,993.74	365	382	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	GSGGSSGDELREDDEPVKK	R	R	95.00%	3.09	0.346	0	1	0	0	2	2,121.84	365	383	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	GVMAVTAVTATAASDR	R	M	95.00%	2.39	0.294	0	1	0	0	2	1,600.74	124	139	TRUE	
SNU216_PC2_02	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	12	13	0.08%	15.40%	KRSEGFSMDR	R	K	95.00%	2.73	0.305	0	1	1	0	2	1,292.55	452	461	TRUE	
SNU216_PC2_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	2	2	2	0.01%	3.62%	ASALLFSSDEEDQWNIPASQTHLASDSR	K	S	95.00%	4.7	0.485	0	0	1	0	2	3,155.40	507	534	TRUE	
SNU216_PC2_02	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	2	2	2	0.01%	3.62%	RTPSDDEEDNLFAPPK	R	L	95.00%	2.53	0.196	0	1	0	0	2	1,910.82	224	239	TRUE	
SNU216_PC2_02	smooth muscle cell associated protein-1 isoform	IPI00072534	103,078.90	100.00%	1	1	1	0.01%	1.48%	PATPGASSVEQLRK	R	E	95.00%	3.53	0.36	0	0	1	0	2	1,520.75	13	26	TRUE	
SNU216_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.03%	3.72%	DSGNWDTSGSELSEGELEK	K	R	95.00%	3.52	0.382	0	1	0	0	2	2,119.83	908	926	TRUE	
SNU216_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.03%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	95.00%	3.39	0.0808	0	1	0	0	2	2,355.90	908	927	TRUE	
SNU216_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.03%	3.72%	HKSDSPESDAEREK	R	D	95.00%	2.8	0.241	0	0	1	0	2	1,854.63	863	876	TRUE	
SNU216_PC2_02	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	4	4	4	0.03%	3.72%	SDSPESDAEREK	K	D	88.70%	1.84	0.231	0	1	0	0	2	1,509.51	865	876	TRUE	
SNU216_PC2_02	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	2	2	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.27	0.434	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	8	0.05%	9.83%	HYEDGYPGGSDNYGSLSR	R	V	95.00%	3.06	0.403	0	1	0	0	2	2,053.79	162	179	TRUE	
SNU216_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	8	0.05%	9.83%	LRSYEDMIGEEVPSDQYYWAPLAQHER	R	G	95.00%	5.63	0.555	0	0	1	1	2	3,362.48	264	290	TRUE	
SNU216_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	8	0.05%	9.83%	SGDLGDMEPLK	R	G	95.00%	2.41	0.449	0	1	0	0	2	1,241.51	860	870	TRUE	
SNU216_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	8	0.05%	9.83%	SGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.72	0.549	0	1	0	0	2	2,097.96	860	878	TRUE	
SNU216_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	8	0.05%	9.83%	SMGYDDLDYGMMSDYGTAR	R	R	95.00%	4.14	0.363	0	1	0	0	2	2,227.80	234	252	TRUE	
SNU216_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	8	0.05%	9.83%	TLDRSGDLGDMEPLK	R	G	95.00%	2.96	0.273	0	1	0	0	2	1,726.77	856	870	TRUE	
SNU216_PC2_02	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	7	8	8	0.05%	9.83%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.32	0.424	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC2_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	GDDDEESDEEAVKK	K	T	95.00%	2.92	0.143	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216_PC2_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	IKWDEQTSNTKGDDDEESDEEAVK	R	K	95.00%	5.17	0.39	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216_PC2_02	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	3	3	3	0.02%	3.66%	WDEQTSNTKGDDDEESDEEAVKK	K	T	93.30%	3.02	0.16	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	ASPSSPGRQDSDEDDGPQR	K	V	95.00%	2.68	0.255	0	1	0	0	2	2,080.82	121	139	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	HAQRSPEASQTDSPVESPR	R	L	95.00%	4.91	0.467	0	1	2	0	2	2,158.95	348	366	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	RSPGGGSEANGLALVSGFK	R	R	95.00%	3.36	0.401	0	0	1	0	2	1,883.90	182	200	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	SPEASQTDSPVESPR	R	L	91.20%	2.74	0.123	0	1	0	0	2	1,746.66	352	366	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	SPGGGSEANGLALVSGFK	R	R	95.00%	3.64	0.459	0	1	0	0	2	1,727.80	183	200	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	SSEPVQADESQSPR	R	D	95.00%	2.59	0.25	0	1	0	0	2	1,596.65	878	891	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	TISEPDEQR	R	S	95.00%	2.09	0.255	0	1	0	0	2	1,154.47	377	385	TRUE	
SNU216_PC2_02	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	8	9	10	0.06%	9.45%	VPSSQSMEDR	R	G	94.30%	1.62	0.296	0	1	0	0	2	1,215.47	399	408	TRUE	
SNU216_PC2_02	Nibrin	IPI00299463,IPI00607775	75,970.60	99.80%	1	1	1	0.01%	2.12%	IPNYQLSPTKLPSINK	R	S	95.00%	3.72	0.171	0	1	0	0	2	1,892.99	344	359	TRUE	
SNU216_PC2_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	6	6	0.04%	9.35%	ADIPVKSSPQAAVPYKK	K	D	95.00%	2.87	0.255	0	0	1	0	2	1,878.97	601	617	TRUE	
SNU216_PC2_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	6	6	0.04%	9.35%	KLDDDSDSPSFFEEKPEEPVVLALDPK	K	G	95.00%	3.07	0.184	0	0	1	0	2	3,126.44	731	757	TRUE	
SNU216_PC2_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	6	6	0.04%	9.35%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	3.7	0.332	0	1	1	0	2	2,296.94	948	966	TRUE	
SNU216_PC2_02	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	4	6	6	0.04%	9.35%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	95.00%	4.91	0.42	0	0	1	1	2	4,426.91	1057	1096	TRUE	
SNU216_PC2_02	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	3	3	0.02%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	1.99	0.27	0	1	0	0	2	2,449.02	958	978	TRUE	
SNU216_PC2_02	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	99.80%	2	3	3	0.02%	2.06%	NSGTQSDGEEKQPGLVMER	R	A	95.00%	3.62	0.42	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216_PC2_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	1	1	1	0.01%	2.62%	NKSNEDQSMGNWQIK	R	R	95.00%	3.09	0.459	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216_PC2_02	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	2.22%	RSLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	4.85	0.33	0	0	1	0	2	2,733.35	646	671	TRUE	
SNU216_PC2_02	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	2.22%	SLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	4.55	0.5	0	0	1	0	2	2,577.24	647	671	TRUE	
SNU216_PC2_02	heterogeneous nuclear ribonucleoprotein U isofor	IPI00644079	90,585.20	100.00%	1	1	1	0.01%	3.88%	LQAALDDEEAGGRPAMEPGNGSLDLGGDS	R	S	95.00%	5.3	0.322	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	93.40%	5.91	0.0351	0	0	1	0	2	4,155.93	282	317	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	K	H	86.20%	4.89	0.0755	0	0	0	1	2	4,250.79	1206	1243	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	4.41	0.388	0	1	0	0	2	2,641.12	541	563	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.39	0.522	0	0	1	0	2	2,539.15	1112	1134	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	7.18	0.617	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	4.94	0.469	0	0	2	0	2	2,457.22	1090	1111	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.35	0.539	0	0	1	0	2	3,282.51	1464	1495	TRUE	
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	SEDMPFSPK	R	A	95.00%	2.01	0.256	0	1	0	0	2	1,117.43	264	272	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	9	9	10	0.06%	10.30%	TSSGTSLSAMHSSGSSGK	R	G	83.80%	3.25	0.0392	0	1	0	0	2	1,748.72	1320	1337	TRUE	
SNU216_PC2_02	hypothetical protein LOC57703	IPI00177381	105,470.20	100.00%	2	2	2	0.01%	3.63%	HSGSRSDEDRYQNGAER	K	R	84.50%	2.47	0.236	0	0	1	0	2	2,043.83	861	877	TRUE	
SNU216_PC2_02	hypothetical protein LOC57703	IPI00177381	105,470.20	100.00%	2	2	2	0.01%	3.63%	NSSPEDRYEEQERSPR	R	D	95.00%	1.91	0.389	0	0	1	0	2	2,218.78	26	41	TRUE	
SNU216_PC2_02	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	100.00%	2	2	2	0.01%	3.24%	EGRGESENAGTNQETR	R	S	95.00%	2.51	0.395	0	1	0	0	2	1,814.73	426	441	TRUE	
SNU216_PC2_02	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	100.00%	2	2	2	0.01%	3.24%	GESENAGTNQETR	R	S	95.00%	3.1	0.428	0	1	0	0	2	1,472.57	429	441	TRUE	
SNU216_PC2_02	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	DVPSPGGLSAPSSPR	K	N	95.00%	3.2	0.45	0	1	0	0	2	1,503.68	429	443	TRUE	
SNU216_PC2_02	Absent in melanoma 1-like	IPI00017443	50,983.70	99.80%	2	2	2	0.01%	3.52%	RKDVPSPGGLSAPSSPR	R	N	95.00%	4.78	0.514	0	0	1	0	2	1,787.88	427	443	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	5	7	0.04%	10.00%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	3.74	0.431	0	0	3	1	2	3,586.35	473	502	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	5	7	0.04%	10.00%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	3.37	0.258	0	0	1	0	2	2,869.29	503	526	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	5	7	0.04%	10.00%	VAQGATEKSPEDK	K	V	95.00%	3.17	0.366	0	1	0	0	2	1,439.64	443	455	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	5	7	0.04%	10.00%	VAQGATEKSPEDKVQIAANEETQER	K	E	95.00%	5.19	0.456	0	0	1	0	2	2,808.31	443	467	TRUE	
SNU216_PC2_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	3	4	0.03%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	6.15	0.529	0	0	1	1	2	3,538.48	736	766	TRUE	
SNU216_PC2_02	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	3	4	0.03%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	4.12	0.44	0	2	0	0	2	2,024.89	251	267	TRUE	
SNU216_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	3	3	3	0.02%	8.68%	DYDEEEQGYDSEKEK	R	K	95.00%	3.32	0.323	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	3	3	3	0.02%	8.68%	SKTPPKSYSTAR	R	R	95.00%	2.69	0.434	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216_PC2_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	3	3	3	0.02%	8.68%	VNGDDHHEEDMDMSD	K	-	95.00%	2.03	0.372	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216_PC2_02	LKB1 interacting protein	IPI00170934	121,345.00	98.60%	1	1	1	0.01%	1.73%	SPRPTGSDLLPGAPILSLR	R	F	95.00%	2.92	0.424	0	0	1	0	2	2,027.07	610	628	TRUE	
SNU216_PC2_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	4	5	5	0.03%	12.60%	KVDEGAGDSAAVASGGAQTLALAGSPAPSI	R	A	95.00%	7.99	0.538	0	0	1	0	2	3,054.45	460	492	TRUE	
SNU216_PC2_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	4	5	5	0.03%	12.60%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.24	0.47	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216_PC2_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	4	5	5	0.03%	12.60%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.46	0.362	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216_PC2_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	4	5	5	0.03%	12.60%	SVEPQDAGPLER	R	S	95.00%	2.34	0.297	0	1	0	0	2	1,377.60	349	360	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	DLDEEGSEKELHENVLDK	K	E	95.00%	3.82	0.396	0	1	1	0	2	2,178.94	573	590	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.67	0.442	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	ELHENVLDKELEENDSENSEFEDDGSEK	K	V	95.00%	5.97	0.591	0	0	1	0	2	3,439.33	582	609	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	ESEDDLNKESEEEVGPTK	K	E	95.00%	3.74	0.387	0	1	0	0	2	2,114.87	520	537	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	LFDEEEDSSEK	K	L	80.40%	2.01	0.167	0	1	0	0	2	1,407.52	706	716	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	LFDEEEDSSEKLFDDSDER	K	G	95.00%	4.16	0.433	0	2	1	0	2	2,384.93	706	724	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	LFEDDDSNEK	K	L	95.00%	1.87	0.285	0	1	0	0	2	1,291.47	696	705	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	4.67	0.502	0	1	0	0	2	2,600.01	696	716	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	LFEDDDSNEKLFDEEEDSSEKLFDDSDER	K	G	95.00%	2.73	0.319	0	0	1	0	2	3,657.38	696	724	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	LFEESDDKEDEDADGK	K	E	95.00%	4.35	0.36	0	1	1	0	2	1,921.72	672	687	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.25	0.504	0	1	2	0	2	2,837.11	672	695	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.62	0.49	0	0	1	0	2	2,271.83	637	654	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	6.13	0.394	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC2_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	14	19	21	0.13%	21.20%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.69	0.328	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	3	3	3	0.02%	4.14%	ERTESEVPPRPASPK	K	V	86.90%	2.4	0.171	0	0	1	0	2	1,759.84	446	460	TRUE	
SNU216_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	3	3	3	0.02%	4.14%	SPPETAAPVEDMAR	R	R	95.00%	2.59	0.335	0	1	0	0	2	1,550.66	464	477	TRUE	
SNU216_PC2_02	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	56,947.10	100.00%	3	3	3	0.02%	4.14%	TESEVPPRPASPK	R	V	95.00%	2.92	0.398	0	1	0	0	2	1,474.69	448	460	TRUE	
SNU216_PC2_02	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	5.75	0.474	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216_PC2_02	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	2	2	0.01%	7.47%	GREEHYEEEEEEEEDGAAVAEK	K	S	95.00%	4.03	0.397	0	0	1	0	2	2,644.02	668	689	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	KLGAGEGGEASVSPEK	K	T	95.00%	3.6	0.33	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	KSAEPSANTTLVSETEEEGSVPAFGAAAK	R	P	95.00%	4.26	0.107	0	0	1	0	2	2,958.36	159	187	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	LDSSPSVSSTLAAK	K	D	95.00%	2.04	0.368	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	LGAGEGGEASVSPEK	K	T	95.00%	3.44	0.472	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	SLGNILQAKPTSSPAK	K	G	95.00%	3.46	0.367	0	2	1	0	2	1,691.87	494	509	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.44	0.447	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	TSQVGAASAPAKESPR	K	K	95.00%	3.82	0.494	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	TSQVGAASAPAKESPRK	K	G	95.00%	4.33	0.424	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216_PC2_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	9	13	14	0.09%	7.73%	TVANLLSGKSPR	K	K	95.00%	2.96	0.201	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.16%	DKASPEPEKDFSEK	K	A	95.00%	3.04	0.28	0	1	1	0	2	1,686.73	684	697	TRUE	
SNU216_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.16%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.16	0.327	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.16%	STSPASEKADPGAVK	K	D	95.00%	2.35	0.257	0	1	0	0	2	1,604.66	669	683	TRUE	
SNU216_PC2_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	5	5	0.03%	6.16%	TGQAGSLSGSPKPFSPQLSAPITTK	K	T	95.00%	3.95	0.308	0	0	1	0	2	2,537.27	500	524	TRUE	
SNU216_PC2_02	CD2-associated protein	IPI00412771	71,454.00	99.80%	1	1	1	0.01%	2.03%	FNGGHSPTHSPEK	R	I	95.00%	3	0.358	0	1	0	0	2	1,474.61	505	517	TRUE	
SNU216_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	4.87	0.544	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.62	0.403	0	1	1	0	2	2,172.03	344	362	TRUE	
SNU216_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	4.82	0.174	0	0	1	0	2	3,264.38	394	422	TRUE	
SNU216_PC2_02	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	VGNESPVQELK	K	Q	95.00%	2.66	0.35	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	8	0.05%	8.94%	EQPEMEDANSEK	R	S	95.00%	2.83	0.426	0	1	0	0	2	1,486.54	11	22	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	8	0.05%	8.94%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.68	0.386	0	0	2	0	2	3,454.32	11	39	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	8	0.05%	8.94%	EVIDASDKEGMSPAK	K	R	95.00%	3.1	0.219	0	1	0	0	2	1,656.72	82	96	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	8	0.05%	8.94%	EVIDASDKEGMSPAKR	K	T	95.00%	3.63	0.248	0	1	0	0	2	1,812.82	82	97	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	8	0.05%	8.94%	KKSPIINESR	R	S	95.00%	3.22	0.274	0	0	1	0	2	1,251.65	275	284	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	8	0.05%	8.94%	SPSPDDILER	R	V	95.00%	2.08	0.325	0	1	0	0	2	1,208.52	578	587	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	8	0.05%	8.94%	VQSGMGLILQGYESGSEEEGEIHEK	K	A	90.30%	3.11	0.149	0	0	1	0	2	2,786.22	129	153	TRUE	
SNU216_PC2_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	1	1	2	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	4.26	0.454	0	0	2	0	2	1,694.76	90	103	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	99.80%	2	3	3	0.02%	3.39%	ASQSRPNSSALETLGGEK	K	L	95.00%	4.69	0.102	0	1	1	0	2	1,911.88	447	464	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	99.80%	2	3	3	0.02%	3.39%	QVAEQGGDLSPAANR	K	S	95.00%	2.88	0.382	0	1	0	0	2	1,592.71	429	443	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	5.31%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.24	0.607	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	5.31%	TEDGGWEWSDDEFDEESEEGKAAISQLR	K	S	95.00%	4.15	0.405	0	0	1	0	2	3,295.32	331	358	TRUE	
SNU216_PC2_02	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.78	0.236	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216_PC2_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	3.40%	RSSDPVPGPPADTQPSASHPGGQSLK	R	L	95.00%	5.21	0.443	0	0	1	0	2	2,650.23	139	164	TRUE	
SNU216_PC2_02	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	99.80%	2	2	2	0.01%	3.40%	SSSLESLQTAVAEVR	K	K	95.00%	3.12	0.449	0	1	0	0	2	1,656.78	744	758	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	99.80%	2	2	3	0.02%	4.06%	APPAPLAASEVTNSNSAER	K	R	95.00%	4.04	0.523	0	1	0	0	2	1,961.90	172	190	TRUE	
SNU216_PC2_02	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	99.80%	2	2	3	0.02%	4.06%	ENYSDSEEEDDDDVASSR	R	Q	95.00%	4.32	0.672	0	2	0	0	2	2,221.70	256	273	TRUE	
SNU216_PC2_02	RNA-binding protein 6	IPI00297723	128,619.00	99.80%	1	1	1	0.01%	2.58%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	5.54	0.388	0	0	1	0	2	3,284.37	341	369	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.93	0.215	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	ARHDSPDPSPPR	R	R	95.00%	2.1	0.3	0	1	0	0	2	1,491.58	193	204	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	ATDSDLSSPR	K	H	95.00%	2.43	0.24	0	1	0	0	2	1,128.46	351	360	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.69	0.437	0	1	1	0	2	1,861.85	269	284	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	HDSPDPSPPR	R	R	95.00%	2.42	0.439	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	HDTPDPSPLR	R	G	95.00%	2.39	0.39	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	IRHDSSDTSPPR	R	R	95.00%	1.73	0.304	0	1	0	0	2	1,607.57	180	191	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	NSKYEYDPDISPPR	K	K	95.00%	2.72	0.31	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216_PC2_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	9	10	10	0.06%	12.30%	YEYDPDISPPR	K	K	88.30%	2.1	0.218	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	APESDTGDEDQDQER	R	D	95.00%	2.8	0.528	0	1	0	0	2	1,851.60	575	589	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	DEDGESGGQRSEAEEGEVR	R	T	95.00%	2.92	0.223	0	1	0	0	2	2,115.81	456	474	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	DKSDSDTEGLLFSR	R	D	95.00%	3.56	0.4	0	2	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	GAPSQDDESGGIEDSPDR	K	G	95.00%	3.96	0.383	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	PASVSENHDAGPDGDKRDEDGESGGQR	R	S	95.00%	3.35	0.329	0	0	1	1	2	2,862.16	439	465	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	RLPSSPASPSPK	R	G	95.00%	2.02	0.375	0	1	0	0	2	1,303.64	537	548	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	SDSDTEGLLFSR	K	D	95.00%	2.59	0.389	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	SEAEEGEVRTPTK	R	I	93.00%	2.53	0.164	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	SLDGAEFSR	R	P	95.00%	1.61	0.339	0	1	0	0	2	1,061.43	430	438	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	4.09	0.468	0	0	2	1	2	2,794.21	430	455	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.64	0.305	0	0	2	0	2	2,540.10	639	659	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	SLSPIIGK	R	D	91.00%	1.66	0.116	1	0	0	0	2	894.4698	782	789	TRUE	
SNU216_PC2_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	13	15	18	0.12%	16.70%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	R	T	90.60%	6.2	0.0168	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	4.41	0.418	0	1	1	0	2	2,428.13	618	639	TRUE	
SNU216_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	GADNDGSGSESGYTTPK	K	K	95.00%	3.91	0.512	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	NDSWGSFDLR	R	A	95.00%	2.1	0.401	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC2_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	5	6	0.04%	8.78%	RTSPQVLGSILK	K	S	95.00%	3	0.3	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC2_02	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	98.70%	1	1	1	0.01%	3.05%	GGSPQMDDIKVFQNEVLGTLQR	R	G	95.00%	3.38	0.444	0	0	1	0	2	2,512.19	542	563	TRUE	
SNU216_PC2_02	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	1	3	4	0.03%	3.16%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.13	0.434	0	1	2	1	2	2,465.14	415	437	TRUE	
SNU216_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	QRSPIALPVKQEPPQIDAVK	R	R	95.00%	5.29	0.455	0	0	1	0	2	2,294.23	209	228	TRUE	
SNU216_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	SKFDSDEEEEDTENVEAASSGK	R	V	95.00%	7.02	0.615	0	1	1	0	2	2,482.96	286	307	TRUE	
SNU216_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	4	4	0.03%	8.82%	SPSPVPQEEHSDPEMTEEEKEYQMMLLTK	R	M	95.00%	4.07	0.365	0	0	1	0	2	3,659.43	311	339	TRUE	
SNU216_PC2_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	AGGLDWPEATEVSPSR	R	T	95.00%	3.28	0.251	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC2_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	LSSGFDDIDLPSAVK	R	Y	95.00%	2.69	0.35	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216_PC2_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.12	0.222	0	1	1	0	2	2,142.05	308	326	TRUE	
SNU216_PC2_02	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	4.38	0.357	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216_PC2_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	4	4	0.03%	10.80%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	3.31	0.23	0	1	1	0	2	2,027.92	76	93	TRUE	
SNU216_PC2_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	4	4	0.03%	10.80%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.98	0.479	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC2_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	4	4	0.03%	10.80%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	4.98	0.0788	0	0	1	0	2	3,019.41	318	347	TRUE	
SNU216_PC2_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	2	2	0.01%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.2	0.292	0	0	1	0	2	2,020.82	45	61	TRUE	
SNU216_PC2_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	2	2	0.01%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	4.56	0.555	0	0	0	1	2	2,176.93	44	61	TRUE	
SNU216_PC2_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	4	4	0.03%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	3.6	0.308	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216_PC2_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	4	4	0.03%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	5.9	0.494	0	1	1	0	2	2,128.94	8	26	TRUE	
SNU216_PC2_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	4	4	0.03%	6.97%	VAHEPVAPPEDKESESEAKVDGETASDSESR	R	A	95.00%	5.42	0.417	0	0	0	1	2	3,362.45	8	38	TRUE	
SNU216_PC2_02	hypothetical protein LOC157769	IPI00152671	93,971.90	100.00%	1	1	1	0.01%	4.42%	SPVQEASSATDTDTNSQEDPADTASVSSLSI	R	R	95.00%	7.07	0.0536	0	0	1	0	2	3,801.65	340	376	TRUE	
SNU216_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	DKSDSPAIQLR	R	L	95.00%	2.22	0.195	0	1	0	0	2	1,309.62	936	946	TRUE	
SNU216_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	GDLSDVEEEEEEEMDVDEATGAVK	R	K	95.00%	5.16	0.429	0	1	0	0	2	2,705.05	829	852	TRUE	
SNU216_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	GDLSDVEEEEEEEMDVDEATGAVKK	R	H	95.00%	4.77	0.523	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	5.67	0.0959	0	0	1	1	2	4,089.02	277	313	TRUE	
SNU216_PC2_02	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	5	7	7	0.04%	6.68%	YMNSDTTSPELR	R	E	88.10%	2.18	0.169	0	1	0	0	2	1,493.60	1105	1116	TRUE	
SNU216_PC2_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	2	2	0.01%	2.93%	RRYEDDGISDDEIEGK	R	R	95.00%	3.08	0.203	0	1	0	0	2	1,976.82	20	35	TRUE	
SNU216_PC2_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	2	2	0.01%	2.93%	SSPGAGPSDHHSASRDER	R	F	95.00%	2.64	0.274	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear pore complex protein Nup1	IPI00026625,IPI00376609	149,019.90	99.50%	2	2	2	0.01%	2.44%	AAPQSPSVPK	K	K	95.00%	1.83	0.326	0	1	0	0	2	1,061.50	929	938	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear pore complex protein Nup1	IPI00026625,IPI00376609	149,019.90	99.50%	2	2	2	0.01%	2.44%	QYSHHSSVQDAVSQLDSELMDITK	R	L	89.30%	3.06	0.148	0	0	1	0	2	2,798.23	1105	1128	TRUE	
SNU216_PC2_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	4	4	4	0.03%	7.83%	AGVVNGTGAPGQSPGAGR	K	A	95.00%	2.59	0.247	0	1	0	0	2	1,632.75	374	391	TRUE	
SNU216_PC2_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	4	4	4	0.03%	7.83%	LPEASQSPLVLK	R	Q	95.00%	2.45	0.259	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216_PC2_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	4	4	4	0.03%	7.83%	SNMSPHGLPAR	R	S	95.00%	2.5	0.29	0	0	1	0	2	1,246.54	446	456	TRUE	
SNU216_PC2_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	4	4	4	0.03%	7.83%	VAPVINNGSPTILGK	K	R	84.30%	2.4	0.141	0	1	0	0	2	1,559.82	568	582	TRUE	
SNU216_PC2_02	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	1	1	1	0.01%	2.57%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.55	0.429	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216_PC2_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	4	4	0.03%	5.39%	DSEDVSERDSDKEMATK	R	S	95.00%	2.68	0.359	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216_PC2_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	4	4	0.03%	5.39%	GLAEVQQDGEAEEGATSDGEK	K	K	95.00%	3.65	0.314	0	1	0	0	2	2,199.89	581	601	TRUE	
SNU216_PC2_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	4	4	0.03%	5.39%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	3.14	0.345	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216_PC2_02	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	4	4	4	0.03%	5.39%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	3.95	0.414	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase TAO3	IPI00410485	105,408.50	99.80%	1	1	1	0.01%	2.45%	NGPLNESQEDEEDSEHGTSLNR	R	E	95.00%	4.21	0.48	0	0	1	0	2	2,537.01	318	339	TRUE	
SNU216_PC2_02	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	99.80%	1	1	1	0.01%	1.52%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	3.35	0.397	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	ILATDVSSKNTPDSK	K	K	95.00%	3.64	0.267	0	1	0	0	2	1,655.79	120	134	TRUE	
SNU216_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	ILATDVSSKNTPDSKK	K	I	93.30%	2.78	0.159	0	0	1	0	2	1,783.88	120	135	TRUE	
SNU216_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	NDVDDEEVHGSSDDSK	K	Q	95.00%	3.56	0.459	0	1	0	0	2	1,907.62	699	714	TRUE	
SNU216_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	NDVDDEEVHGSSDDSKQSK	K	V	95.00%	3.08	0.493	0	1	0	0	2	2,330.77	699	717	TRUE	
SNU216_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	PSGGFVISGVLSPDTISSK	R	R	95.00%	2.64	0.19	0	1	0	0	2	1,927.94	762	780	TRUE	
SNU216_PC2_02	Centromere protein C 1	IPI00304885	106,928.30	100.00%	6	6	6	0.04%	7.10%	SEESPVYSNSSVR	K	N	95.00%	2.81	0.311	0	1	0	0	2	1,520.63	535	547	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Nardilysin	IPI00243221,IPI00747052	139,288.40	100.00%	1	1	1	0.01%	1.15%	RGSLSNAGDPEIVK	R	S	95.00%	2.43	0.241	0	0	1	0	2	1,522.73	92	105	TRUE	
SNU216_PC2_02	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	2	3	4	0.03%	3.81%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	3.08	0.302	0	1	2	0	2	2,945.07	432	455	TRUE	
SNU216_PC2_02	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	2	3	4	0.03%	3.81%	GLKEGMNPSYDEYADSDEDQHDAYLER	R	M	95.00%	4.76	0.127	0	0	1	0	2	3,227.28	429	455	TRUE	
SNU216_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.13%	GEIKDSSPSSSPSPK	K	G	81.60%	3.25	0.0512	0	1	0	0	2	1,662.67	333	347	TRUE	
SNU216_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.13%	HLFSSTENLAAGSWK	K	E	95.00%	2.45	0.271	0	1	0	0	2	1,727.78	353	367	TRUE	
SNU216_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.13%	HLFSSTENLAAGSWKEPAEGGGLSSDR	K	Q	95.00%	5.78	0.445	0	0	1	0	2	2,883.29	353	379	TRUE	
SNU216_PC2_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.13%	RSSLLSLMTGK	R	K	95.00%	2.58	0.376	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.30%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	6.44	0.506	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.30%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	4.02	0.513	0	2	1	0	2	2,238.86	44	63	TRUE	
SNU216_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.30%	GLWSTDSAEEDKETK	R	R	95.00%	3.22	0.413	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216_PC2_02	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	4	5	6	0.04%	9.30%	SKPDLESSLESLVFDLR	K	T	89.40%	2.24	0.221	0	0	1	0	2	2,014.97	182	198	TRUE	
SNU216_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	5	0.03%	10.20%	AAKNSEEEEEEK	K	K	95.00%	2.95	0.456	0	1	0	0	2	1,472.58	569	580	TRUE	
SNU216_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	5	0.03%	10.20%	GGSISVQVNSIKFDSE	R	-	95.00%	2.94	0.253	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	5	0.03%	10.20%	SSSSEDSSSDEEEEQKKPMK	K	N	95.00%	2.87	0.273	0	0	1	0	2	2,323.91	274	293	TRUE	
SNU216_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	5	0.03%	10.20%	VADNSFDAK	R	R	95.00%	1.61	0.341	0	1	0	0	2	1,046.42	649	657	TRUE	
SNU216_PC2_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	5	5	5	0.03%	10.20%	VAGGAAPSKPASAKK	K	G	95.00%	2.44	0.334	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216_PC2_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.60%	2	2	2	0.01%	1.21%	AVIVSSPK	K	A	91.40%	2.01	0.175	0	1	0	0	2	880.454	1396	1403	TRUE	
SNU216_PC2_02	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	99.60%	2	2	2	0.01%	1.21%	HLEAADKGHSPAQKPK	K	T	95.00%	3.02	0.213	0	0	0	1	2	1,793.87	596	611	TRUE	
SNU216_PC2_02	Centaurin-beta 2	IPI00014264	88,030.10	100.00%	1	1	1	0.01%	1.93%	SSPSTGSLDSGNESK	K	E	80.80%	2.78	0.0823	0	1	0	0	2	1,532.61	378	392	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	100.00%	2	2	2	0.01%	5.10%	RKSQMEEVQDELIHR	R	L	94.70%	2.54	0.195	0	0	0	1	2	1,977.92	685	699	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	100.00%	2	2	2	0.01%	5.10%	RLSTEHSSVSEYHPADGYAFSSNIYTR	K	G	95.00%	5.76	0.0595	0	0	0	1	2	3,154.39	476	502	TRUE	
SNU216_PC2_02	Isoform 1 of Bromodomain-containing protein 3	IPI00014266	79,542.50	99.80%	2	2	2	0.01%	3.17%	QASASYDSEEEEEGLPMSYDEK	K	R	95.00%	3.92	0.482	0	1	0	0	2	2,573.98	556	577	TRUE	
SNU216_PC2_02	Isoform 1 of Bromodomain-containing protein 3	IPI00014266	79,542.50	99.80%	2	2	2	0.01%	3.17%	QASASYDSEEEEEGLPMSYDEKR	K	Q	95.00%	4.06	0.448	0	0	1	0	2	2,730.08	556	578	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	7	7	0.04%	3.38%	DSQSASGEERPPEADGK	R	K	95.00%	2.94	0.386	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	7	7	0.04%	3.38%	ERGTPPVDPK	R	L	95.00%	2.27	0.217	0	1	0	0	2	1,175.55	779	788	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	7	7	0.04%	3.38%	KGNSPNSEPPTPK	K	T	95.00%	2.78	0.248	0	1	0	0	2	1,432.65	377	389	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	7	7	0.04%	3.38%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	2.89	0.333	0	1	1	1	2	2,537.95	339	359	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	7	7	0.04%	3.38%	SEGSEYEEIPKR	R	R	95.00%	1.93	0.367	0	1	0	0	2	1,503.64	1089	1100	TRUE	IPI00643923,IPI00741537
SNU216_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	8	10	0.06%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	3.64	0.429	0	2	0	0	2	1,527.64	61	73	TRUE	
SNU216_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	8	10	0.06%	5.75%	KEEPSQNDISPK	K	T	95.00%	3.5	0.335	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	8	10	0.06%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.74	0.213	0	0	1	0	2	1,639.74	60	73	TRUE	
SNU216_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	8	10	0.06%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.29	0.349	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	8	10	0.06%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	4.44	0.406	0	2	0	0	2	1,791.77	117	131	TRUE	
SNU216_PC2_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	6	8	10	0.06%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	4.09	0.391	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216_PC2_02	sarcolemma associated protein	IPI00030531	93,205.10	99.80%	2	2	2	0.01%	1.97%	AKESDFSDTLSPSK	R	E	95.00%	2.64	0.227	0	1	0	0	2	1,591.69	425	438	TRUE	
SNU216_PC2_02	sarcolemma associated protein	IPI00030531	93,205.10	99.80%	2	2	2	0.01%	1.97%	ESDFSDTLSPSKEK	K	S	95.00%	2.72	0.257	0	1	0	0	2	1,649.69	427	440	TRUE	
SNU216_PC2_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	2	2	2	0.01%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.64	0.366	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216_PC2_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	2	2	2	0.01%	3.63%	KRVSVELTNSLFK	R	H	95.00%	3.09	0.275	0	0	1	0	2	1,600.85	660	672	TRUE	
SNU216_PC2_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	99.80%	1	1	2	0.01%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.78	0.553	0	0	2	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC2_02	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.80%	2	2	2	0.01%	3.46%	AASLDSVATSR	R	V	95.00%	1.72	0.287	0	1	0	0	2	1,157.52	758	768	TRUE	
SNU216_PC2_02	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.80%	2	2	2	0.01%	3.46%	APSHMSSSHSFPQLAR	R	N	95.00%	2.71	0.245	0	0	1	0	2	1,819.79	174	189	TRUE	
SNU216_PC2_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	9	0.06%	4.33%	QEEIDESDDDLDDKPSPIK	R	K	95.00%	4.55	0.412	0	1	1	0	2	2,267.94	714	732	TRUE	
SNU216_PC2_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	9	0.06%	4.33%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	5.74	0.38	0	2	2	0	2	2,396.04	714	733	TRUE	
SNU216_PC2_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	9	0.06%	4.33%	SHPLDLSPNVQSR	K	D	95.00%	2.17	0.264	0	1	0	0	2	1,529.71	1024	1036	TRUE	
SNU216_PC2_02	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	6	9	0.06%	4.33%	TLSDPPSPLPHGPPNK	R	G	95.00%	3.21	0.332	0	2	0	0	2	1,733.83	840	855	TRUE	
SNU216_PC2_02	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.70%	2	3	3	0.02%	5.30%	EQSSDLTPSGDVSPVKPLSR	R	S	95.00%	3.4	0.48	0	1	1	0	2	2,179.03	365	384	TRUE	
SNU216_PC2_02	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.70%	2	3	3	0.02%	5.30%	YGGDSDHPSDGETSVQPMMTK	K	I	93.30%	3.45	0.0589	0	1	0	0	2	2,398.86	267	287	TRUE	
SNU216_PC2_02	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	5.25	0.622	0	0	1	0	2	3,332.21	541	570	TRUE	
SNU216_PC2_02	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	4.32	0.379	0	0	1	1	2	4,263.69	541	580	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	AAGARPLTSPESLSR	K	D	95.00%	2.42	0.343	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	80.40%	5	0.0384	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	3.93	0.173	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.6	0.445	0	2	1	0	2	1,798.73	964	980	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.36	0.344	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216_PC2_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	9	0.06%	7.98%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.07	0.33	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	4	4	0.03%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	3.08	0.396	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	4	4	0.03%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	3.46	0.427	0	1	0	0	2	2,129.88	78	96	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	4	4	0.03%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	3.37	0.411	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	4	4	4	0.03%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.86	0.38	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216_PC2_02	Proline and glutamic acid rich nuclear protein isof	IPI00178047	110,224.90	100.00%	2	2	3	0.02%	4.22%	AGSNEDPILAPSGTPPPTIPPDETFGGR	R	V	95.00%	4.1	0.355	0	0	1	0	2	2,870.33	644	671	TRUE	
SNU216_PC2_02	Proline and glutamic acid rich nuclear protein isof	IPI00178047	110,224.90	100.00%	2	2	3	0.02%	4.22%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.49	0.298	0	2	0	0	2	1,606.75	478	493	TRUE	
SNU216_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	5	6	0.04%	8.02%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.8	0.303	0	0	2	0	2	2,200.01	667	686	TRUE	
SNU216_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	5	6	0.04%	8.02%	GLAGPPASPGK	K	A	95.00%	2.22	0.471	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	5	6	0.04%	8.02%	GSPSGGSTAEASDTLSIR	R	S	95.00%	2.83	0.397	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	5	6	0.04%	8.02%	KLQLERPVSPETQADLQR	R	N	95.00%	3.04	0.417	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC2_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	5	6	0.04%	8.02%	KPSVGVPPPASPSYPR	R	A	95.00%	3.57	0.371	0	0	1	0	2	1,715.85	969	984	TRUE	
SNU216_PC2_02	KIAA0082	IPI00166153	95,324.00	100.00%	1	1	1	0.01%	1.92%	ASTTSLSGSDSETEGK	K	Q	95.00%	2.29	0.273	0	1	0	0	2	1,636.66	45	60	TRUE	
SNU216_PC2_02	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	5	0.03%	3.37%	FSGFSAKPNNSGEAPSSPTPK	K	R	95.00%	3.71	0.412	0	1	1	0	2	2,186.98	139	159	TRUE	
SNU216_PC2_02	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	5	0.03%	3.37%	KFSGFSAKPNNSGEAPSSPTPK	R	R	95.00%	4.95	0.313	0	0	1	0	2	2,315.07	138	159	TRUE	
SNU216_PC2_02	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	5	0.03%	3.37%	LTTTGQVTSPVK	K	G	95.00%	2.62	0.264	0	1	0	0	2	1,311.66	115	126	TRUE	
SNU216_PC2_02	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	4	5	5	0.03%	3.37%	PNNSGEAPSSPTPK	K	R	95.00%	4.19	0.513	0	1	0	0	2	1,462.62	146	159	TRUE	
SNU216_PC2_02	Myosin-9	IPI00019502	226,406.30	100.00%	3	4	4	0.03%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.09	0.483	0	1	0	0	2	2,254.90	1937	1959	TRUE	
SNU216_PC2_02	Myosin-9	IPI00019502	226,406.30	100.00%	3	4	4	0.03%	1.23%	KGAGDGSDEEVDGK	R	A	95.00%	3.35	0.471	0	1	0	0	2	1,443.56	1936	1949	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Myosin-9	IPI00019502	226,406.30	100.00%	3	4	4	0.03%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	4.8	0.553	0	1	1	0	2	2,085.86	1936	1956	TRUE	
SNU216_PC2_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	100.00%	3	3	3	0.02%	3.94%	DLVQPDKPASPK	R	F	95.00%	2.68	0.369	0	1	0	0	2	1,374.67	506	517	TRUE	
SNU216_PC2_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	100.00%	3	3	3	0.02%	3.94%	ISPPIKEEETK	R	G	81.20%	2.17	0.188	0	1	0	0	2	1,350.66	408	418	TRUE	
SNU216_PC2_02	nuclear protein UKp68 isoform 1	IPI00397376	82,876.10	100.00%	3	3	3	0.02%	3.94%	ISPPIKEEETKGDSVEK	R	N	95.00%	2.94	0.279	0	0	1	0	2	1,965.94	408	424	TRUE	
SNU216_PC2_02	E-cadherin	IPI00000513,IPI00025861,IP	90,943.50	100.00%	1	1	1	0.01%	1.46%	NDVAPTLMSVPR	R	Y	95.00%	2.34	0.263	0	1	0	0	2	1,379.64	724	735	TRUE	
SNU216_PC2_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	2	2	0.01%	1.87%	TAFYNEDDSEEEQR	R	Q	95.00%	3.28	0.515	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216_PC2_02	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	2	2	0.01%	1.87%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.32	0.444	0	1	0	0	2	2,309.91	1279	1298	TRUE	
SNU216_PC2_02	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	2	2	0.01%	3.86%	DGEQSPNVSLMQR	R	M	87.90%	2.44	0.136	0	1	0	0	2	1,540.65	332	344	TRUE	
SNU216_PC2_02	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	2	2	0.01%	3.86%	DSALQDTDDSDDDPVLIPGAR	R	Y	95.00%	3.62	0.356	0	1	0	0	2	2,374.93	668	688	TRUE	
SNU216_PC2_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	236,530.90	99.80%	1	1	1	0.01%	0.90%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.19	0.469	0	1	0	0	2	2,003.91	1730	1748	TRUE	
SNU216_PC2_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	3.68	0.334	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216_PC2_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	3.83	0.501	0	0	1	0	2	3,209.61	696	726	TRUE	
SNU216_PC2_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.73	0.0314	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	5	0.03%	7.68%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	5.61	0.556	0	0	2	0	2	3,410.43	206	235	TRUE	
SNU216_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	5	0.03%	7.68%	GTDTQTPAVLSPSK	K	T	95.00%	3.01	0.485	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	5	0.03%	7.68%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	4.15	0.28	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216_PC2_02	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	5	0.03%	7.68%	TNKSPEAKPLPGK	K	L	94.30%	2.27	0.193	0	1	0	0	2	1,446.74	64	76	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.38	0.313	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	GSPTSAYPER	K	K	95.00%	1.85	0.329	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	HGSDPAFAPGPR	R	G	95.00%	2.8	0.414	0	1	1	0	2	1,288.55	521	532	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	KGSPTPGFSTR	R	R	91.40%	2.03	0.219	0	1	0	0	2	1,214.56	879	889	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	RGSPVPPVPER	R	R	95.00%	2.2	0.197	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	RLSLGQGDSTEAATEER	R	G	95.00%	4.12	0.427	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	3.05	0.207	0	0	2	0	2	2,639.07	4	25	TRUE	
SNU216_PC2_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	8	10	11	0.07%	11.90%	VPAAFPTKVPVPGPGSGGNGPER	R	E	95.00%	3.65	0.388	0	0	1	0	2	2,268.12	632	654	TRUE	
SNU216_PC2_02	Protein deltex 3-like protein	IPI00152503	83,556.20	99.80%	2	3	3	0.02%	5.00%	AASPPLKGSVSSEASELDKK	K	E	95.00%	3.78	0.322	0	0	1	0	2	2,081.02	537	556	TRUE	
SNU216_PC2_02	Protein deltex 3-like protein	IPI00152503	83,556.20	99.80%	2	3	3	0.02%	5.00%	LKEGHETPMDIDSDDSK	K	A	95.00%	3.9	0.566	0	1	1	0	2	1,996.82	520	536	TRUE	
SNU216_PC2_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.90%	2	2	2	0.01%	2.68%	QDSSGMRLWK	K	R	95.00%	2.2	0.298	0	1	0	0	2	1,303.55	174	183	TRUE	
SNU216_PC2_02	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.90%	2	2	2	0.01%	2.68%	SMPSMGYMTHTVSAPSLHGK	R	S	95.00%	3.09	0.329	0	0	1	0	2	2,198.94	631	650	TRUE	
SNU216_PC2_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSSLTNDVAK	K	Q	95.00%	5.61	0.129	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216_PC2_02	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	3.91	0.422	0	1	0	0	2	1,896.90	850	867	TRUE	
SNU216_PC2_02	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	1	1	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	5.52	0.511	0	0	1	0	2	3,106.31	797	824	TRUE	
SNU216_PC2_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	4.4	0.286	0	0	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC2_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	99.80%	2	2	2	0.01%	8.22%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.72	0.29	0	0	1	0	2	3,631.49	108	138	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.38	0.29	0	0	2	0	2	2,429.15	976	997	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	DNSPPPAFKPEPPK	R	A	95.00%	2.77	0.46	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	DSQQTLINIPSLNDSDSEIEDISEIESNR	R	S	95.00%	5.1	0.0797	0	0	1	0	2	3,341.49	384	412	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	ERPSSREDTPSR	K	L	95.00%	2.47	0.357	0	2	0	0	2	1,496.65	437	448	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	GSYGSDAEEEEYR	R	Q	95.00%	2.74	0.507	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.99	0.241	0	1	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	KVQVAALQASPPLDQDDR	R	A	95.00%	5.15	0.512	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	RHQYSDYDYHSSSEK	R	L	95.00%	4.36	0.341	0	1	1	0	2	1,981.77	420	434	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	SFSPEER	R	R	95.00%	1.99	0.286	0	1	0	0	2	931.3557	413	419	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	SIDQDYER	R	A	95.00%	2	0.169	1	1	0	0	2	1,105.42	244	251	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	4.98	0.508	0	0	2	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC2_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	17	21	0.13%	13.50%	VQVAALQASPPLDQDDR	K	A	95.00%	3.28	0.418	0	1	0	0	2	1,902.90	122	138	TRUE	
SNU216_PC2_02	Alpha-taxilin	IPI00470779	61,891.20	99.80%	1	1	1	0.01%	2.56%	RPEGPGAQAPSSPR	R	V	95.00%	3.3	0.426	0	1	0	0	2	1,486.68	504	517	TRUE	
SNU216_PC2_02	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.80%	1	2	2	0.01%	3.72%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	7.71	0.492	0	0	1	1	2	4,052.72	188	220	TRUE	
SNU216_PC2_02	HECT and RCC1 containing protein 4 isoform 1	IPI00333067,IPI00604497	118,566.60	99.80%	1	1	1	0.01%	1.89%	YGQLGLGTDCKKQTSPQLLK	K	S	95.00%	3.12	0.231	0	0	0	1	2	2,315.15	166	185	TRUE	
SNU216_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.92%	AGAGMITQHSSNASPINR	R	I	95.00%	3.06	0.234	0	1	0	0	2	1,891.85	989	1006	TRUE	
SNU216_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.92%	DGQDAIAQSPEK	K	E	95.00%	2.83	0.389	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.92%	DGQDAIAQSPEKESK	K	D	95.00%	3.87	0.377	0	1	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.92%	ISSKSPGHMVILDQTK	R	G	95.00%	4.31	0.516	0	2	2	0	2	1,820.90	549	564	TRUE	
SNU216_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.92%	RISSKSPGHMVILDQTK	K	G	95.00%	3.43	0.228	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216_PC2_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	10	0.06%	4.92%	SPGHMVILDQTK	K	G	95.00%	2.86	0.363	0	1	0	0	2	1,405.65	553	564	TRUE	
SNU216_PC2_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	6	0.04%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.44	0.375	0	2	1	0	2	1,876.68	490	504	TRUE	
SNU216_PC2_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	6	0.04%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	2.55	0.273	0	1	2	0	2	2,161.82	488	504	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	3	3	4	0.03%	9.49%	SPPYTAFLGNLPYDVTEESIKEFFR	K	G	95.00%	5.39	0.433	0	0	1	0	2	3,000.41	93	117	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	3	3	4	0.03%	9.49%	SQSSDTEQQSPTSGGGK	K	V	95.00%	3.78	0.485	0	2	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	3	3	4	0.03%	9.49%	TGSESSQTGTSTTSSR	R	N	86.40%	3.28	0.0444	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC2_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.90%	2	2	2	0.01%	2.83%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	3.42	0.432	0	1	0	0	2	2,075.92	342	359	TRUE	
SNU216_PC2_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	99.90%	2	2	2	0.01%	2.83%	TLTDEVNSPDSDRR	K	D	95.00%	3.21	0.221	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216_PC2_02	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	99.80%	1	1	2	0.01%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	5.05	0.429	0	0	2	0	2	3,240.40	542	570	TRUE	
SNU216_PC2_02	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	1	2	2	0.01%	2.37%	EESDDEAAVEEEEEEKKPK	K	T	95.00%	5.29	0.46	0	1	1	0	2	2,299.93	304	322	TRUE	
SNU216_PC2_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	4	5	0.03%	5.01%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	R	95.00%	4.21	0.301	0	0	1	0	2	3,690.75	1093	1125	TRUE	
SNU216_PC2_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	4	5	0.03%	5.01%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	4.84	0.545	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216_PC2_02	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	4	5	0.03%	5.01%	SSLSGDEEDELFK	R	G	95.00%	2.49	0.248	0	2	0	0	2	1,535.62	1279	1291	TRUE	
SNU216_PC2_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.10%	2	2	2	0.01%	1.53%	ALSSLHGDDQSEDEVLTIPEVK	K	V	82.20%	3.19	0.124	0	0	1	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC2_02	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.10%	2	2	2	0.01%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	3.07	0.253	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.04%	10.00%	EEAPASPLRPLYPQISPLK	K	I	95.00%	3.45	0.308	0	0	1	0	2	2,266.09	45	63	TRUE	
SNU216_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.04%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	2.99	0.477	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.04%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	3.66	0.34	0	0	1	1	2	3,383.68	36	63	TRUE	
SNU216_PC2_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	6	6	0.04%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	2.59	0.44	0	1	0	0	2	1,585.72	253	267	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	6	6	0.04%	7.54%	KASPEPPDSAEGALK	R	L	95.00%	4.22	0.476	0	1	1	0	2	1,576.73	545	559	TRUE	
SNU216_PC2_02	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	6	6	0.04%	7.54%	RKASPEPPDSAEGALK	K	L	95.00%	3.13	0.202	0	1	1	0	2	1,732.83	544	559	TRUE	
SNU216_PC2_02	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	6	6	0.04%	7.54%	RPGSVSSTDQER	K	E	95.00%	1.99	0.271	0	1	0	0	2	1,398.60	331	342	TRUE	
SNU216_PC2_02	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	6	6	0.04%	7.54%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	D	95.00%	4.86	0.415	0	0	1	0	2	3,241.49	610	641	TRUE	
SNU216_PC2_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	4	0.03%	7.72%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	5.36	0.558	0	1	2	0	2	3,107.21	566	591	TRUE	
SNU216_PC2_02	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	4	0.03%	7.72%	SWASLFHDSKPSSSSPVAYVETKYSPPAISPL	K	Q	83.10%	6.11	0.0073	0	0	0	1	2	3,958.92	346	381	TRUE	
SNU216_PC2_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	4	4	4	0.03%	4.05%	ETSPESSLIQDEIAVK	K	L	95.00%	3.45	0.466	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216_PC2_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	4	4	4	0.03%	4.05%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	3.47	0.369	0	0	1	0	2	2,144.06	275	293	TRUE	
SNU216_PC2_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	4	4	4	0.03%	4.05%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	3.92	0.0669	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC2_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	4	4	4	0.03%	4.05%	VDHGAEIITQSPGR	R	S	95.00%	3.46	0.434	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	6	7	0.04%	5.51%	HAIMRSPQMVSAIVR	R	T	95.00%	2.97	0.331	0	0	1	0	2	1,775.88	186	200	TRUE	
SNU216_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	6	7	0.04%	5.51%	RLSVELTSSLFR	K	T	95.00%	2.7	0.273	0	1	0	0	2	1,487.76	673	684	TRUE	
SNU216_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	6	7	0.04%	5.51%	RTSMGGTQQQFVEGVR	R	M	95.00%	4.94	0.528	0	2	1	0	2	1,860.84	550	565	TRUE	
SNU216_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	6	7	0.04%	5.51%	SPQMVSAIVR	R	T	95.00%	2.04	0.339	0	1	0	0	2	1,167.56	191	200	TRUE	
SNU216_PC2_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	5	6	7	0.04%	5.51%	TSMGGTQQQFVEGVR	R	M	95.00%	3.34	0.504	0	1	0	0	2	1,704.74	551	565	TRUE	
SNU216_PC2_02	WW domain-binding protein 11	IPI00170786	69,999.90	100.00%	1	2	2	0.01%	2.34%	RRDEDMLYSPELAQR	R	G	95.00%	2.82	0.165	0	1	1	0	2	1,958.88	229	243	TRUE	
SNU216_PC2_02	Isoform 2 of AP-3 complex subunit delta-1	IPI00289608,IPI00719680	136,654.70	99.80%	1	1	1	0.01%	1.53%	NTETSKSPEKDVPMVEK	R	K	95.00%	2.99	0.247	0	0	1	0	2	1,998.91	823	839	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	EISDDEAEEEK	K	G	95.00%	3.28	0.461	1	1	0	0	2	1,373.50	223	233	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	EISDDEAEEEKGEK	K	E	95.00%	3.44	0.447	0	1	1	0	2	1,687.66	223	236	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	EKEISDDEAEEEK	R	G	95.00%	3	0.436	0	3	1	0	2	1,630.64	221	233	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	3.63	0.488	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	EREKEISDDEAEEEK	K	G	95.00%	2.8	0.309	0	1	0	0	2	1,915.78	219	233	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	3.4	0.476	1	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.94	0.466	0	4	2	0	2	1,817.70	249	264	TRUE	
SNU216_PC2_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	16	24	0.15%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.31	0.503	0	3	1	1	2	2,025.76	249	265	TRUE	
SNU216_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	6	7	9	0.06%	5.66%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	3.94	0.349	0	0	3	0	2	2,290.07	266	286	TRUE	
SNU216_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	6	7	9	0.06%	5.66%	DDISEIQSLASDHSGR	R	S	95.00%	2.77	0.24	0	1	0	0	2	1,809.77	287	302	TRUE	
SNU216_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	6	7	9	0.06%	5.66%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	3.73	0.246	0	0	0	1	2	2,165.08	346	365	TRUE	
SNU216_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	6	7	9	0.06%	5.66%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.01	0.32	0	0	1	1	2	3,651.55	111	140	TRUE	
SNU216_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	6	7	9	0.06%	5.66%	SVASSQPAKPTK	R	V	95.00%	2.31	0.262	0	1	0	0	2	1,280.62	175	186	TRUE	
SNU216_PC2_02	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	6	7	9	0.06%	5.66%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.93	0.35	0	0	1	0	2	3,523.46	112	140	TRUE	
SNU216_PC2_02	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	2	2	2	0.01%	2.15%	AASPPASASDLIEQQQK	R	R	95.00%	2.76	0.39	0	1	0	0	2	1,820.84	333	349	TRUE	
SNU216_PC2_02	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	2	2	2	0.01%	2.15%	AASPPASASDLIEQQQKR	R	G	95.00%	4.13	0.366	0	0	1	0	2	1,976.94	333	350	TRUE	
SNU216_PC2_02	ATP-dependent DNA helicase 2 subunit 2	IPI00220834	82,575.90	100.00%	1	1	1	0.01%	3.15%	KYAPTEAQLNAVDALIDSMSLAK	K	K	95.00%	3.4	0.207	0	0	1	0	2	2,689.16	442	464	TRUE	
SNU216_PC2_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	99.20%	2	2	2	0.01%	2.40%	LDSSPVLSPGNK	K	A	95.00%	3.34	0.549	0	1	0	0	2	1,293.61	775	786	TRUE	
SNU216_PC2_02	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	99.20%	2	2	2	0.01%	2.40%	SDSVLPASHGHLPQAGSLER	R	N	84.80%	2.97	0.164	0	0	1	0	2	2,138.00	747	766	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.40%	2	2	2	0.01%	2.71%	APSPPLSQVFQTR	R	A	95.00%	2.13	0.287	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.40%	2	2	2	0.01%	2.71%	SSPVESLKK	R	E	88.00%	1.88	0.198	0	1	0	0	2	1,054.52	77	85	TRUE	
SNU216_PC2_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	99.70%	1	1	1	0.01%	3.56%	HTGPNSPDTANDGFVR	K	L	95.00%	3.1	0.448	0	1	0	0	2	1,764.73	99	114	TRUE	
SNU216_PC2_02	Gephyrin	IPI00016006,IPI00184477	83,448.60	99.80%	1	2	2	0.01%	3.80%	VKEVHDELEDLPSPPPPLSPPPTTSPHK	K	Q	95.00%	5.17	0.22	0	0	1	1	2	3,120.53	176	203	TRUE	
SNU216_PC2_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	1	2	2	0.01%	5.82%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	3.87	0.405	0	0	1	1	2	2,333.13	446	466	TRUE	
SNU216_PC2_02	GEM-interacting protein	IPI00292376	106,734.20	99.80%	2	2	2	0.01%	3.30%	SLDSPTSSPGAGTR	R	Q	95.00%	2.15	0.321	0	1	0	0	2	1,412.61	434	447	TRUE	
SNU216_PC2_02	GEM-interacting protein	IPI00292376	106,734.20	99.80%	2	2	2	0.01%	3.30%	SQGSPEDSAPQASPGPSK	R	Q	95.00%	3.62	0.37	0	1	0	0	2	1,806.75	231	248	TRUE	
SNU216_PC2_02	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.03%	6.35%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	4.12	0.433	0	0	2	0	2	3,169.31	651	677	TRUE	
SNU216_PC2_02	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.03%	6.35%	DGTSPEEEIEIER	K	Q	95.00%	2.41	0.413	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216_PC2_02	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.03%	6.35%	TLDSGTSEIVKSPR	R	I	95.00%	3.16	0.354	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.53	0.421	0	0	1	1	2	3,599.65	366	400	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI	K	H	95.00%	4.1	0.482	0	0	1	1	2	4,001.82	363	400	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	5	0.03%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.68	0.328	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC2_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	2	2	2	0.01%	2.12%	ELDQDMVTEDEDDPGSHKR	K	G	84.80%	2.94	0.135	0	0	1	0	2	2,295.91	725	743	TRUE	
SNU216_PC2_02	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	2	2	2	0.01%	2.12%	KRQSPEPSPVTLGR	R	R	94.10%	2.95	0.161	0	0	1	0	2	1,631.83	1411	1424	TRUE	
SNU216_PC2_02	Isoform 2 of Bromodomain-containing protein 8	IPI00016570,IPI00148057	102,839.80	99.80%	1	1	1	0.01%	1.58%	APSIDGKEELDLAEK	K	M	95.00%	2.31	0.248	0	1	0	0	2	1,694.79	458	472	TRUE	
SNU216_PC2_02	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	1	1	1	0.01%	1.78%	TSSAFVGKTPEASPEPK	K	D	95.00%	3.1	0.333	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216_PC2_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	14.60%	AGDLLEDSPKRPK	R	E	95.00%	2.89	0.157	0	0	1	0	2	1,505.74	158	170	TRUE	
SNU216_PC2_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.28	0.301	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216_PC2_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	3	3	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.71	0.417	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase N1	IPI00002803	103,993.30	99.80%	2	3	3	0.02%	3.61%	LNLGTDSDSSPQK	K	S	95.00%	2.85	0.313	0	1	0	0	2	1,441.62	553	565	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase N1	IPI00002803	103,993.30	99.80%	2	3	3	0.02%	3.61%	TDVSNFDEEFTGEAPTLSPPR	R	D	95.00%	4.03	0.438	0	1	1	0	2	2,389.02	899	919	TRUE	
SNU216_PC2_02	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.11	0.351	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216_PC2_02	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	3.79	0.382	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216_PC2_02	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	2	2	0.01%	4.64%	SETSWESPK	K	Q	95.00%	1.86	0.287	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216_PC2_02	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	2	2	0.01%	4.64%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	4.27	0.458	0	1	0	0	2	2,152.93	415	432	TRUE	
SNU216_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	7	0.04%	3.05%	AEDSDSEPEPEDNVR	K	L	95.00%	2.6	0.353	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	7	0.04%	3.05%	KAEDSDSEPEPEDNVR	R	L	95.00%	3.25	0.435	0	3	1	0	2	1,896.75	495	510	TRUE	
SNU216_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	7	0.04%	3.05%	NSPGSQVASNPR	R	Q	95.00%	2.71	0.404	0	1	0	0	2	1,293.56	447	458	TRUE	
SNU216_PC2_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	4	5	7	0.04%	3.05%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.4	0.422	0	1	1	0	2	2,132.82	494	510	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	ASPIKMDLAPSK	R	D	95.00%	2.35	0.182	0	1	0	0	2	1,337.65	385	396	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	ASPSKPASAPASR	R	S	95.00%	2.89	0.392	0	1	1	0	2	1,306.62	814	826	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.34	0.259	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	DMESPTKLDVTLAK	K	D	95.00%	3.91	0.427	0	1	1	0	2	1,627.77	305	318	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	DMSPLSETEMALGK	K	D	95.00%	3.06	0.509	0	4	0	0	2	1,668.63	533	546	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	5.17	0.443	0	0	3	0	2	3,106.50	533	560	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	DVTPPPETEVVLIK	K	N	95.00%	2.51	0.365	0	2	0	0	2	1,616.82	547	560	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	ETERASPIKMDLAPSK	K	D	95.00%	2.99	0.28	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	92.60%	6.5	0.0385	0	0	1	0	2	3,569.64	628	661	TRUE	
SNU216_PC2_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	10	13	19	0.12%	13.50%	RASPSKPASAPASR	K	S	95.00%	2.52	0.348	0	1	0	0	2	1,462.72	813	826	TRUE	
SNU216_PC2_02	Isoform 1 of Dynamin-2	IPI00033022,IPI00181352,IP	98,024.70	100.00%	1	1	1	0.01%	4.48%	EALNIIGDISTSTVSTPVPPPVDDTWLQSASS	K	R	95.00%	7.78	0.0031	0	0	1	0	2	4,181.01	731	769	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	3	3	4	0.03%	3.82%	AHLSENELEALEK	R	N	95.00%	2.92	0.383	0	1	0	0	2	1,562.71	859	871	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	3	3	4	0.03%	3.82%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	4.76	0.229	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	3	3	4	0.03%	3.82%	GLVAAYSGESDSEEEQER	R	G	95.00%	4.35	0.413	0	2	0	0	2	2,035.81	792	809	TRUE	
SNU216_PC2_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	99.80%	2	2	2	0.01%	1.51%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	7.03	0.664	0	0	1	0	2	3,718.48	2973	3004	TRUE	
SNU216_PC2_02	family with sequence similarity 44, member A	IPI00386211	330,459.70	99.80%	2	2	2	0.01%	1.51%	YYSDSDDELTVEQR	K	R	95.00%	3.34	0.494	0	1	0	0	2	1,799.70	480	493	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	ASSLSESSPPK	R	A	90.20%	1.62	0.212	1	0	0	0	2	1,169.51	367	377	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	5.65	0.49	0	0	2	0	2	3,217.28	668	695	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	8.09	0.631	0	1	1	0	2	3,126.40	223	250	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	6.97	0.506	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	LRSPPEALVQGR	R	Y	95.00%	3.12	0.303	0	0	2	0	2	1,402.72	130	141	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.92	0.489	0	1	2	1	2	1,980.95	350	366	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.68	0.514	0	0	7	2	2	3,432.41	666	695	TRUE	
SNU216_PC2_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	23	0.15%	15.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	5.71	0.514	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC2_02	Isoform 1 of Protein KIAA0690	IPI00101186,IPI00294794	132,711.90	99.80%	1	2	2	0.01%	1.70%	GDSIEEILADSEDEEDNEEEER	K	S	95.00%	5.34	0.502	0	0	1	1	0	2,631.99	970	991	TRUE	
SNU216_PC2_02	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	3	3	0.02%	3.98%	NRPEPHSDENGSTTPK	K	V	93.50%	1.92	0.298	0	1	0	0	2	1,845.78	143	158	TRUE	
SNU216_PC2_02	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	3	3	0.02%	3.98%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	7.15	0.73	0	1	1	0	2	3,132.14	621	646	TRUE	
SNU216_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	3	3	3	0.02%	5.92%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.52	0.367	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	3	3	3	0.02%	5.92%	KFPTTATKISPK	K	E	95.00%	2.67	0.293	0	0	1	0	2	1,398.74	413	424	TRUE	
SNU216_PC2_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	3	3	3	0.02%	5.92%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	5.21	0.101	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216_PC2_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	4.12%	KTESPIKLSPATPSR	K	K	95.00%	3.47	0.292	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC2_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	4.12%	SPPLPAVIR	R	N	82.50%	1.69	0.223	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216_PC2_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	3	3	0.02%	4.12%	SVAVSDEEEVEEEAER	R	R	95.00%	3.59	0.348	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC2_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.80%	2	2	2	0.01%	3.68%	IGSDPLAYEPK	R	E	95.00%	2.14	0.335	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216_PC2_02	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	99.80%	2	2	2	0.01%	3.68%	INNYLTVPAHKLDSPTMSR	K	A	95.00%	4.57	0.414	0	0	1	0	2	2,237.08	184	202	TRUE	
SNU216_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	4	4	0.03%	9.64%	GSDALSETSSVSHIEDLEK	R	V	95.00%	4.07	0.139	0	1	0	0	2	2,083.91	713	731	TRUE	
SNU216_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	4	4	0.03%	9.64%	GVPHPEDDHSQVEGPESLR	K	-	95.00%	2.61	0.289	0	0	1	0	2	2,164.93	770	788	TRUE	
SNU216_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	4	4	0.03%	9.64%	LSSGPEQITLEASSTEGHPGAPSPQHTDQTE	R	G	95.00%	3.34	0.171	0	0	0	1	2	3,742.69	735	769	TRUE	
SNU216_PC2_02	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	4	4	4	0.03%	9.64%	SLRGSDALSETSSVSHIEDLEK	R	V	95.00%	5.34	0.4	0	0	1	0	2	2,440.12	710	731	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	DSENLASPSEYPENGER	R	F	95.00%	3.27	0.366	0	2	0	0	2	1,973.78	617	633	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	NLNNSNLFSPVNR	K	D	95.00%	2.84	0.254	0	1	0	0	2	1,568.72	604	616	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	PAPPPQSQSPEVEQLGR	K	V	95.00%	3.06	0.353	0	1	0	0	2	1,896.89	926	942	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	TAPLPPASQTTPLQMALNGKPAPPPQSQSP	K	V	95.00%	5.43	0.363	0	0	0	1	2	3,913.95	906	942	TRUE	
SNU216_PC2_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	5	6	7	0.04%	4.80%	YGLQDSDEEEEEHPSK	K	T	95.00%	4.19	0.326	0	1	1	0	2	1,971.75	883	898	TRUE	
SNU216_PC2_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.82%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	3.55	0.354	0	0	1	0	2	2,547.16	2310	2332	TRUE	
SNU216_PC2_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.82%	VTGPRLVSNHSLHETSSVFVDSLTK	K	A	92.50%	3.05	0.175	0	0	0	1	2	2,790.38	2515	2539	TRUE	
SNU216_PC2_02	Probable ATP-dependent RNA helicase DDX20	IPI00005904	92,242.10	99.80%	1	1	1	0.01%	1.21%	YQESPGIQMK	K	T	95.00%	2.04	0.214	0	1	0	0	2	1,260.53	711	720	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	EEELEETGNQHNDVEIEEAGEEEEKEIAIVHS	R	E	95.00%	4.57	0.136	0	0	0	1	2	4,187.79	316	351	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	EIAIVHSDAEK	K	E	95.00%	3.02	0.422	0	1	0	0	2	1,291.59	341	351	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	6.55	0.558	0	0	1	1	2	3,065.37	341	365	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.74	0.545	0	1	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	QESDPEDDDVK	R	K	95.00%	3.77	0.501	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	3.87	0.608	0	1	2	1	2	2,653.22	98	121	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.35	0.44	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	SLSPGKENVSALDMEK	K	E	95.00%	3.24	0.435	0	2	2	0	2	1,800.81	441	456	TRUE	
SNU216_PC2_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	15	18	0.12%	16.60%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	5.39	0.414	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216_PC2_02	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	2	3	3	0.02%	3.74%	IHAESLLLDSPAVAK	R	S	95.00%	3.15	0.325	0	1	0	0	2	1,643.84	370	384	TRUE	
SNU216_PC2_02	Isoform 1b of Oxysterol-binding protein-related p	IPI00167053,IPI00169296	97,688.50	100.00%	2	3	3	0.02%	3.74%	LHSSNPNLSTLDFGEEK	K	N	95.00%	3.82	0.469	0	1	1	0	2	1,967.87	270	286	TRUE	
SNU216_PC2_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	2	2	2	0.01%	1.46%	ALQHTESPSETNKPHSK	K	S	95.00%	3.17	0.336	0	0	0	1	2	1,970.90	94	110	TRUE	
SNU216_PC2_02	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	2	2	2	0.01%	1.46%	SESPPAELPSLR	R	R	95.00%	2.24	0.341	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	14	0.09%	5.22%	FEDEDSDDVPR	K	K	95.00%	2.32	0.397	0	1	0	0	2	1,403.50	698	708	TRUE	
SNU216_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	14	0.09%	5.22%	LGASNSPGQPNSVK	K	R	95.00%	3.08	0.453	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	14	0.09%	5.22%	LGASNSPGQPNSVKR	K	K	95.00%	2.95	0.408	0	1	1	0	2	1,591.76	672	686	TRUE	
SNU216_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	14	0.09%	5.22%	QEPESEEEEEEK	K	Q	95.00%	2.77	0.466	0	1	0	0	2	1,571.56	579	590	TRUE	
SNU216_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	14	0.09%	5.22%	QEPESEEEEEEKQEK	K	E	95.00%	3.32	0.402	0	3	0	0	2	1,956.76	579	593	TRUE	
SNU216_PC2_02	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	6	8	14	0.09%	5.22%	QEPESEEEEEEKQEKEEK	K	R	95.00%	3.45	0.402	0	2	4	0	2	2,342.94	579	596	TRUE	
SNU216_PC2_02	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.11%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	4.95	0.0582	0	1	0	0	2	2,540.96	240	261	TRUE	
SNU216_PC2_02	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.11%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.05	0.308	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC2_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	1	1	0.01%	3.23%	SESPKEPEQLRK	K	L	95.00%	3.21	0.369	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216_PC2_02	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	3	0.02%	6.58%	KADTTTPTPTAILAPGSPASPPGSLEPK	R	A	95.00%	4.31	0.353	0	0	1	0	2	2,782.39	282	309	TRUE	
SNU216_PC2_02	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	3	0.02%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEK	K	R	95.00%	3.97	0.229	0	0	1	0	2	3,008.24	622	647	TRUE	
SNU216_PC2_02	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	3	0.02%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEKR	K	Q	95.00%	3.11	0.254	0	0	1	0	2	3,164.34	622	648	TRUE	
SNU216_PC2_02	Leukemia virus receptor 2	IPI00009504	70,393.40	100.00%	2	2	2	0.01%	3.68%	EGALSRVSDESLSK	K	V	95.00%	2.85	0.181	0	1	0	0	2	1,557.72	249	262	TRUE	
SNU216_PC2_02	Leukemia virus receptor 2	IPI00009504	70,393.40	100.00%	2	2	2	0.01%	3.68%	EGALSRVSDESLSKVQEAESPVFK	K	E	95.00%	3.3	0.259	0	0	1	0	2	2,752.25	249	272	TRUE	
SNU216_PC2_02	PREDICTED: hypothetical protein LOC114825	IPI00217842	67,593.40	99.80%	1	1	1	0.01%	2.24%	SPEAVGPELEAEEK	R	L	95.00%	2.93	0.379	0	1	0	0	2	1,564.68	145	158	TRUE	
SNU216_PC2_02	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	2	0.01%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.4	0.508	0	1	1	0	2	2,727.04	12	35	TRUE	
SNU216_PC2_02	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	1.61%	AQLGINEDHSEGDEK	R	S	95.00%	3.09	0.37	0	1	0	0	2	1,721.70	211	225	TRUE	
SNU216_PC2_02	Cytospin-A	IPI00178072	124,595.60	100.00%	2	2	2	0.01%	1.61%	AQLGINEDHSEGDEKSEK	R	E	90.70%	2.17	0.218	0	1	0	0	2	2,065.87	211	228	TRUE	
SNU216_PC2_02	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	100.00%	3	3	3	0.02%	10.00%	TDGSISGDRQPVTVADYISR	R	A	95.00%	2.42	0.239	0	0	1	0	2	2,296.98	598	617	TRUE	
SNU216_PC2_02	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	100.00%	3	3	3	0.02%	10.00%	TGGPAYGPSSDVSTASETESEKR	R	E	95.00%	3.98	0.247	0	0	1	0	2	2,393.01	438	460	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	100.00%	3	3	3	0.02%	10.00%	TVMDGGLESDGPNMTENGLEDESRPQR	R	R	95.00%	4.36	0.317	0	0	1	0	2	3,014.25	558	584	TRUE	
SNU216_PC2_02	Double-strand-break repair protein rad21 homolc	IPI00006715	71,691.60	100.00%	1	1	1	0.01%	5.23%	EGSAFEDDDMLVSTTTSNLLLESEQSTSNLN	R	I	95.00%	4.83	0.0819	0	0	1	0	2	3,684.60	173	205	TRUE	
SNU216_PC2_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.64	0.45	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC2_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	K	Q	95.00%	4.78	0.421	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC2_02	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	4	4	4	0.03%	5.96%	GPQGPGGGGINVQEILTSIMGSPNSHPSEEI	K	Q	95.00%	7.18	0.0554	0	0	1	0	2	3,380.62	570	602	TRUE	
SNU216_PC2_02	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	4	4	4	0.03%	5.96%	GPQGPGGGGINVQEILTSIMGSPNSHPSEEI	K	I	95.00%	4.69	0.299	0	0	0	1	2	4,213.98	570	609	TRUE	
SNU216_PC2_02	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	4	4	4	0.03%	5.96%	KVLSPTAAKPSPFEGK	K	T	95.00%	4.04	0.532	0	0	1	0	2	1,736.90	310	325	TRUE	
SNU216_PC2_02	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	100.00%	4	4	4	0.03%	5.96%	VLSPTAAKPSPFEGK	K	T	95.00%	2.92	0.322	0	1	0	0	2	1,608.80	311	325	TRUE	
SNU216_PC2_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00008422,IPI00220119	117,579.40	99.80%	2	2	2	0.01%	3.70%	ANTPDSDITEK	R	T	95.00%	2.09	0.359	0	1	0	0	2	1,350.49	52	62	TRUE	
SNU216_PC2_02	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00008422,IPI00220119	117,579.40	99.80%	2	2	2	0.01%	3.70%	TFNKDTVIIVSEPSEDEESQGLPTMAR	K	R	95.00%	4.84	0.164	0	0	1	0	2	3,153.37	114	140	TRUE	
SNU216_PC2_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	4	4	0.03%	2.78%	ADHRSSPNVANQPPSPGGK	R	S	95.00%	2.83	0.336	0	0	1	0	2	2,155.84	1167	1185	TRUE	
SNU216_PC2_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	4	4	0.03%	2.78%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	3.96	0.223	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216_PC2_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	4	4	0.03%	2.78%	SSPNVANQPPSPGGK	R	S	95.00%	2.78	0.332	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216_PC2_02	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	4	4	4	0.03%	2.78%	TSSVVTLEVAK	R	Q	95.00%	2.16	0.327	1	0	0	0	2	1,213.61	1080	1090	TRUE	
SNU216_PC2_02	Isoform Alpha of Signal transducer and activator	IPI00030781	87,336.90	99.80%	1	1	1	0.01%	2.67%	LQTTDNLLPMSPEEFDEVSR	R	I	95.00%	3.98	0.313	0	1	0	0	2	2,401.06	717	736	TRUE	
SNU216_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	13	0.08%	11.60%	EVEEDSEDEEMSEDEEDDSSGEEVVIPQKK	K	G	95.00%	3.72	0.37	0	0	1	0	2	3,521.37	23	52	TRUE	
SNU216_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	13	0.08%	11.60%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	5.89	0.723	0	0	5	2	2	4,279.38	119	153	TRUE	
SNU216_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	13	0.08%	11.60%	KVVVSPTK	K	K	95.00%	1.95	0.295	0	1	0	0	2	937.5119	63	70	TRUE	
SNU216_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	13	0.08%	11.60%	KVVVSPTKK	K	V	95.00%	2.58	0.321	0	1	0	0	2	1,065.61	63	71	TRUE	
SNU216_PC2_02	74 kDa protein	IPI00604517	74,428.20	100.00%	5	7	13	0.08%	11.60%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	G	95.00%	5.3	0.391	0	0	2	1	2	4,142.70	17	52	TRUE	
SNU216_PC2_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.03%	8.48%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.96	0.394	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216_PC2_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.03%	8.48%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	5.25	0.453	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216_PC2_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	3	4	4	0.03%	8.48%	TTQSMQDFPVVDSEEEAEEEFQK	R	E	95.00%	5.78	0.466	0	1	1	0	2	2,783.13	198	220	TRUE	
SNU216_PC2_02	Isoform 1 of DNA	IPI00031519	189,570.80	99.80%	1	1	1	0.01%	1.13%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.92	0.468	0	1	0	0	2	2,224.85	760	778	TRUE	
SNU216_PC2_02	Pre-B-cell leukemia transcription factor interacting	IPI00332106,IPI00645060	77,684.10	99.80%	1	1	1	0.01%	1.92%	ALQAPHSPSKTDGK	R	E	95.00%	3.18	0.392	0	0	1	0	2	1,516.72	8	21	TRUE	
SNU216_PC2_02	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.74%	NINMDNDLEVLTSSPTR	K	N	95.00%	4.14	0.408	0	1	0	0	2	1,998.88	538	554	TRUE	
SNU216_PC2_02	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.74%	TVEDEDQDSEEEKDNDSYIK	K	E	95.00%	4.31	0.431	0	1	0	0	2	2,467.95	406	425	TRUE	
SNU216_PC2_02	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	3	3	0.02%	4.74%	TVEDEDQDSEEEKDNDSYIKER	K	S	91.60%	3.06	0.15	0	0	1	0	2	2,753.09	406	427	TRUE	
SNU216_PC2_02	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	3	3	0.02%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGK	K	D	95.00%	5.77	0.517	0	0	1	0	2	3,323.24	929	957	TRUE	
SNU216_PC2_02	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	3	3	0.02%	3.74%	DLGHPVEEEDELESGDQEDEDDESEDPGKD	K	-	95.00%	6.48	0.568	0	0	1	0	2	3,916.52	929	962	TRUE	
SNU216_PC2_02	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	3	3	3	0.02%	3.74%	LKDLGHPVEEEDELESGDQEDEDDESEDPG	K	D	95.00%	6.93	0.499	0	0	1	0	2	3,564.42	927	957	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	3	3	0.02%	4.07%	ASSLGEIDESSELR	R	V	95.00%	2.94	0.463	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216_PC2_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	3	3	0.02%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.61	0.387	0	0	1	1	2	3,054.38	478	503	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	SPEPEATLTFPFLDK	K	M	95.00%	3.3	0.406	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216_PC2_02	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	4.07	0.461	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216_PC2_02	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	2	2	2	0.01%	2.80%	GHSAQIAKPIRPGQHPAASPTHPSAIR	R	G	95.00%	4.12	0.473	0	0	0	1	2	2,862.46	915	941	TRUE	
SNU216_PC2_02	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	2	2	2	0.01%	2.80%	PIRPGQHPAASPTHPSAIR	K	G	95.00%	2.95	0.319	0	0	0	1	2	2,070.04	923	941	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	7	8	0.05%	6.97%	KPSKEMSSDSEYDSDDDR	K	T	81.30%	2.45	0.17	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	7	8	0.05%	6.97%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.59	0.586	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	7	8	0.05%	6.97%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.22	0.376	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	7	8	0.05%	6.97%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	2.81	0.361	0	2	1	0	2	2,234.82	131	148	TRUE	
SNU216_PC2_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	7	8	0.05%	6.97%	WDGSEEDEDNSKK	K	I	95.00%	2.53	0.419	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	6	0.04%	6.94%	AESPAEKVPEESVLPLVQK	K	S	95.00%	4.17	0.425	0	0	1	0	2	2,130.07	488	506	TRUE	
SNU216_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	6	0.04%	6.94%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.94	0.485	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	6	0.04%	6.94%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.66	0.44	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	6	0.04%	6.94%	SSSISEEKGDSDDEKPR	K	K	95.00%	4.31	0.282	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC2_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	5	6	6	0.04%	6.94%	TAQVPSPPR	R	G	95.00%	2.09	0.36	0	1	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC2_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	4	4	4	0.03%	10.80%	KGSVSHDTVQPR	K	T	95.00%	2.2	0.209	0	0	1	0	2	1,390.65	89	100	TRUE	
SNU216_PC2_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	4	4	4	0.03%	10.80%	RQSSSYDDPWK	R	I	95.00%	2.68	0.288	0	1	0	0	2	1,448.58	218	228	TRUE	
SNU216_PC2_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	4	4	4	0.03%	10.80%	TGSDHTNPTSPLLVKPSDLLEENKINSSVK	R	F	94.60%	5.76	0.0464	0	0	0	1	2	3,300.64	421	450	TRUE	
SNU216_PC2_02	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	100.00%	4	4	4	0.03%	10.80%	TSADAQEPASPVVSPQQSPPTSPHTWR	R	K	95.00%	3.47	0.222	0	0	1	0	2	3,018.30	101	127	TRUE	
SNU216_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	6	6	8	0.05%	12.10%	ASNEKESAAPASPAPSPAPSPTPAPPQK	R	E	95.00%	5.22	0.465	0	0	1	0	2	2,762.30	533	560	TRUE	
SNU216_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	6	6	8	0.05%	12.10%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	2.51	0.389	0	3	0	0	2	2,233.05	538	560	TRUE	
SNU216_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	6	6	8	0.05%	12.10%	LSASTASELSPK	R	S	89.80%	2.05	0.198	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	6	6	8	0.05%	12.10%	QLPLEPESPSGQVGPRPAPPQEESPSSEAK	K	S	95.00%	3.2	0.234	0	0	1	0	2	3,205.51	63	92	TRUE	
SNU216_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	6	6	8	0.05%	12.10%	QSLPASPR	R	A	86.40%	1.96	0.166	0	1	0	0	2	935.4347	441	448	TRUE	
SNU216_PC2_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	6	6	8	0.05%	12.10%	RSSQPSPTAVPASDSPPTK	R	Q	83.60%	3.62	0.0029	0	1	0	0	2	2,069.89	111	129	TRUE	
SNU216_PC2_02	SLIT-ROBO Rho GTPase-activating protein 2	IPI00478979,IPI00479125	120,882.50	100.00%	2	2	2	0.01%	4.48%	SKSFNNHRPMDPEVIAQDIEATMNSALNEI	R	E	95.00%	5.09	0.358	0	0	0	1	2	3,607.67	928	958	TRUE	
SNU216_PC2_02	SLIT-ROBO Rho GTPase-activating protein 2	IPI00478979,IPI00479125	120,882.50	100.00%	2	2	2	0.01%	4.48%	SSPKSEIEVISEPPEEK	R	V	95.00%	3.12	0.434	0	1	0	0	2	1,964.91	795	811	TRUE	
SNU216_PC2_02	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	3	4	4	0.03%	4.82%	HELSPPQKR	R	M	86.10%	1.81	0.224	0	1	0	0	2	1,171.56	71	79	TRUE	
SNU216_PC2_02	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	3	4	4	0.03%	4.82%	LIHTLDDRTQLWASEPGTPPLPTSLPSQNPIL	K	N	95.00%	4.72	0.148	0	0	1	0	2	3,715.91	527	559	TRUE	
SNU216_PC2_02	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	3	4	4	0.03%	4.82%	TQLWASEPGTPPLPTSLPSQNPILK	R	N	95.00%	4.72	0.115	0	1	1	0	2	2,752.40	535	559	TRUE	
SNU216_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.79%	EDALDDSVSSSSVHASPLASSPVRK	R	N	95.00%	4.65	0.367	0	0	1	0	2	2,621.21	2231	2255	TRUE	
SNU216_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.79%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.04	0.354	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.79%	SALSPSKSPAK	K	L	95.00%	2.27	0.211	0	1	0	0	2	1,152.57	2273	2283	TRUE	
SNU216_PC2_02	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	4	5	5	0.03%	2.79%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	5.12	0.395	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216_PC2_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	99.80%	1	1	1	0.01%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	2.79	0.485	0	1	0	0	2	1,472.66	416	429	TRUE	
SNU216_PC2_02	Transcription repressor	IPI00382733	82,672.30	100.00%	3	3	5	0.03%	6.52%	IDGATQSSPAEPK	K	S	95.00%	2.73	0.298	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216_PC2_02	Transcription repressor	IPI00382733	82,672.30	100.00%	3	3	5	0.03%	6.52%	NMPGLSAATLASLGGTSSR	R	R	95.00%	2.23	0.233	0	1	0	0	2	1,870.87	67	85	TRUE	
SNU216_PC2_02	Transcription repressor	IPI00382733	82,672.30	100.00%	3	3	5	0.03%	6.52%	RGSGDTSISIDTEASIR	R	E	95.00%	2.4	0.359	0	3	0	0	2	1,844.84	86	102	TRUE	
SNU216_PC2_02	hypothetical protein LOC23131	IPI00457284	164,200.50	99.70%	2	2	2	0.01%	1.73%	QEPGGSHGSETEDTGR	K	S	95.00%	2.62	0.406	0	1	0	0	2	1,723.66	645	660	TRUE	
SNU216_PC2_02	hypothetical protein LOC23131	IPI00457284	164,200.50	99.70%	2	2	2	0.01%	1.73%	SWGHESPEER	R	H	93.80%	2.18	0.222	0	1	0	0	2	1,293.49	1009	1018	TRUE	
SNU216_PC2_02	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	99.80%	2	2	2	0.01%	5.94%	DTDSDREAGTETGGENNDKEEEEK	K	K	95.00%	5.11	0.539	0	0	1	0	2	2,735.04	338	361	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	99.80%	2	2	2	0.01%	5.94%	ESSIIAPAPAEDVDTPPR	K	K	95.00%	3.79	0.403	0	1	0	0	2	1,944.90	434	451	TRUE	
SNU216_PC2_02	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	3	3	3	0.02%	5.41%	EFTGSPPSSATK	R	K	95.00%	2.2	0.314	0	1	0	0	2	1,288.55	550	561	TRUE	
SNU216_PC2_02	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	3	3	3	0.02%	5.41%	NISSSPSVESLPGGR	K	E	95.00%	2.56	0.311	0	1	0	0	2	1,566.72	535	549	TRUE	
SNU216_PC2_02	TBC1 domain family member 5	IPI00022450	89,007.10	100.00%	3	3	3	0.02%	5.41%	RTSSTLDSEGTFNSYR	R	K	79.70%	2.94	0.104	0	1	0	0	2	1,900.81	41	56	TRUE	
SNU216_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	12.10%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.39	0.422	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	12.10%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.36	0.419	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	12.10%	KRESESESDETPPAAPQLIK	R	K	94.50%	2.73	0.198	0	0	1	0	2	2,452.01	447	466	TRUE	
SNU216_PC2_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	12.10%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	3.71	0.342	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC2_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	3	3	3	0.02%	3.19%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.63	0.282	0	0	1	0	2	2,366.08	1320	1340	TRUE	
SNU216_PC2_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	3	3	3	0.02%	3.19%	TQMAEVLPSPR	K	G	95.00%	2.69	0.425	0	1	0	0	2	1,308.60	1286	1296	TRUE	
SNU216_PC2_02	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	3	3	3	0.02%	3.19%	VPDEEENEESDNEKETEK	K	S	95.00%	3.66	0.462	0	1	0	0	2	2,229.86	1178	1195	TRUE	
SNU216_PC2_02	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	99.80%	1	1	1	0.01%	1.57%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.27	0.405	0	1	0	0	2	2,114.05	687	705	TRUE	
SNU216_PC2_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	6	6	0.04%	8.78%	AAESETPGKSPEK	K	K	95.00%	3.06	0.469	0	1	1	0	2	1,410.62	418	430	TRUE	
SNU216_PC2_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	6	6	0.04%	8.78%	ATNESEDEIPQLVPIGK	K	K	95.00%	3.7	0.362	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216_PC2_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	6	6	0.04%	8.78%	KSPAKSPNPSTPR	K	G	95.00%	3.23	0.414	0	1	1	0	2	1,526.68	391	403	TRUE	
SNU216_PC2_02	Isoform SV1 of PITSLRE serine/threonine-protein k	IPI00071185,IPI00071188,IP	92,709.00	100.00%	2	2	2	0.01%	2.81%	AYTPVVVTLWYR	K	A	95.00%	2.75	0.337	0	1	0	0	2	1,547.77	593	604	TRUE	
SNU216_PC2_02	Isoform SV1 of PITSLRE serine/threonine-protein k	IPI00071185,IPI00071188,IP	92,709.00	100.00%	2	2	2	0.01%	2.81%	RDSLEEGELR	K	D	95.00%	2.69	0.353	0	1	0	0	2	1,283.56	45	54	TRUE	
SNU216_PC2_02	Ribosome biogenesis protein BOP1	IPI00028955	83,629.30	100.00%	1	1	2	0.01%	2.14%	IGDEYAEDSSDEEDIR	R	N	95.00%	2.51	0.366	0	2	0	0	2	2,002.68	118	133	TRUE	
SNU216_PC2_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	DRTPPLLYR	R	D	95.00%	2.17	0.229	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216_PC2_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	HLDRSPESDRPR	R	K	89.60%	2.4	0.166	0	0	1	0	2	1,544.70	652	663	TRUE	
SNU216_PC2_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	LKSPSQKQDGGTAPVASASPK	K	L	95.00%	3.27	0.232	0	0	1	0	2	2,134.05	763	783	TRUE	
SNU216_PC2_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	5	5	0.03%	5.63%	TTAPTEGKSPLKK	R	E	95.00%	2.87	0.326	0	1	1	0	2	1,437.74	733	745	TRUE	
SNU216_PC2_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	4	4	0.03%	12.10%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	5.67	0.631	0	0	1	0	2	3,222.36	68	95	TRUE	
SNU216_PC2_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	4	4	0.03%	12.10%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.13	0.54	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216_PC2_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	4	4	0.03%	12.10%	VGGVSPEEHPAPEVSTPFPPLPPEPEGGGEE	K	V	95.00%	3.32	0.311	0	0	1	0	2	3,329.53	480	511	TRUE	
SNU216_PC2_02	Similar to RAB3 GTPase-activating protein	IPI00014235	111,287.70	99.80%	1	1	1	0.01%	1.72%	KTSASDVTNIYPGDAGK	K	A	95.00%	4.08	0.382	0	0	1	0	2	1,803.82	535	551	TRUE	
SNU216_PC2_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	2	2	2	0.01%	4.11%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.67	0.34	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216_PC2_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	2	2	2	0.01%	4.11%	TNTPVKEDWNVR	R	I	95.00%	2.45	0.298	0	1	0	0	2	1,538.70	515	526	TRUE	
SNU216_PC2_02	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	100.00%	2	2	2	0.01%	3.70%	SSSPGKPQAVSSLNSSHSR	R	S	95.00%	4.24	0.372	0	0	1	0	2	1,992.91	178	196	TRUE	
SNU216_PC2_02	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	100.00%	2	2	2	0.01%	3.70%	VNPHKVSPASSVDSNIPSSQGYKK	K	E	95.00%	3.41	0.307	0	0	1	0	2	2,606.26	481	504	TRUE	
SNU216_PC2_02	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	2	2	0.01%	2.15%	QGSFTIEKPSPNIPIELIPHINK	R	Q	95.00%	3.39	0.256	0	0	1	0	2	2,652.38	837	859	TRUE	
SNU216_PC2_02	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	2	2	0.01%	2.15%	SIKSDVPVYLK	K	R	95.00%	1.96	0.292	0	1	0	0	2	1,328.69	357	367	TRUE	
SNU216_PC2_02	nucleoporin 214kDa	IPI00643352	213,619.00	99.80%	2	3	3	0.02%	1.48%	ITPPAAKPGSPQAK	R	S	95.00%	3.04	0.328	0	1	1	0	2	1,442.74	669	682	TRUE	
SNU216_PC2_02	nucleoporin 214kDa	IPI00643352	213,619.00	99.80%	2	3	3	0.02%	1.48%	SPGSTPTTPTSSQAPQK	K	L	95.00%	3.5	0.483	0	1	0	0	2	1,751.79	430	446	TRUE	
SNU216_PC2_02	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	4	4	4	0.03%	6.75%	GLVAAYSGDSDNEEELVER	R	L	95.00%	4.76	0.477	0	1	0	0	2	2,132.90	615	633	TRUE	
SNU216_PC2_02	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	4	4	4	0.03%	6.75%	SEDGYHSDGDYGEHDYR	R	H	95.00%	3.5	0.476	0	0	1	0	2	2,081.71	72	88	TRUE	
SNU216_PC2_02	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	4	4	4	0.03%	6.75%	SEDGYHSDGDYGEHDYRHDISDER	R	E	95.00%	3.68	0.296	0	0	1	0	2	2,934.09	72	95	TRUE	
SNU216_PC2_02	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	4	4	4	0.03%	6.75%	YDDYRDYDSPER	R	E	81.20%	2.2	0.143	0	1	0	0	2	1,673.61	51	62	TRUE	
SNU216_PC2_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.70%	2	3	3	0.02%	3.46%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	94.80%	6.11	0.0362	0	0	1	1	2	3,783.64	362	396	TRUE	
SNU216_PC2_02	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	99.70%	2	3	3	0.02%	3.46%	WRPHSPDGPR	R	S	95.00%	2.3	0.216	0	1	0	0	2	1,284.56	232	241	TRUE	
SNU216_PC2_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	9	0.06%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.59	0.481	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216_PC2_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	9	0.06%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	4.32	0.482	0	0	1	1	2	2,727.34	846	871	TRUE	
SNU216_PC2_02	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	9	0.06%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	4.92	0.394	0	0	3	3	2	3,113.52	846	874	TRUE	
SNU216_PC2_02	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	99.80%	2	3	4	0.03%	7.13%	DYLLSESEDEGDNDGERK	K	H	95.00%	2.9	0.217	0	1	0	0	2	2,230.81	25	42	TRUE	
SNU216_PC2_02	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	99.80%	2	3	4	0.03%	7.13%	EAATQEDPEQLPELEAHGVSESEGEERPVAE	K	E	95.00%	5.44	0.471	0	0	2	1	2	4,195.92	386	422	TRUE	
SNU216_PC2_02	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	2.77	0.313	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC2_02	zinc finger RNA binding protein	IPI00333858	117,011.80	99.80%	1	1	1	0.01%	1.40%	RRDSDGVDGFEAEGK	R	K	95.00%	2.85	0.227	0	0	1	0	2	1,717.72	1051	1065	TRUE	
SNU216_PC2_02	General transcription factor 3C polypeptide 4	IPI00016725	92,002.20	100.00%	1	1	1	0.01%	2.92%	ILLVDSPGMGNADDEQQEEGTSSK	K	Q	95.00%	4.74	0.479	0	1	0	0	2	2,600.11	606	629	TRUE	
SNU216_PC2_02	Methionyl-tRNA synthetase	IPI00008240	101,117.50	100.00%	1	1	1	0.01%	3.11%	TSPKPAVVETVTTAKPQQIQALMDEVTK	K	Q	95.00%	3.37	0.295	0	0	0	1	2	3,090.58	824	851	TRUE	
SNU216_PC2_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.89	0.377	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC2_02	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	1	1	1	0.01%	3.11%	AQQQEEQGSVNDVKEEEKEEK	K	E	95.00%	3.83	0.419	0	1	0	0	2	2,541.10	552	572	TRUE	
SNU216_PC2_02	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	99.60%	2	2	2	0.01%	3.46%	GGGQLDLLGVSLASLKK	R	Q	92.70%	3.21	0.0792	0	1	0	0	2	1,735.94	409	425	TRUE	
SNU216_PC2_02	Some homology with holliday junction DNA helic	IPI00178203,IPI00414657	129,355.10	99.60%	2	2	2	0.01%	3.46%	VENSPQVDGSPPGLEGLLGGIGEK	R	G	95.00%	4.63	0.509	0	0	1	0	2	2,429.16	1071	1094	TRUE	
SNU216_PC2_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	2.22%	KPYRIESDEEEDFENVGK	K	V	95.00%	3.67	0.321	0	0	1	0	2	2,263.98	1298	1315	TRUE	
SNU216_PC2_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	2.22%	SVTPTKEFLKDEIK	K	Q	95.00%	2.38	0.311	0	0	1	0	2	1,714.87	365	378	TRUE	
SNU216_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	5	5	0.03%	10.90%	AEDGATPSPSNETPKK	K	K	95.00%	3.4	0.472	0	1	1	0	2	1,708.74	137	152	TRUE	
SNU216_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	5	5	0.03%	10.90%	AEDGATPSPSNETPKKK	K	K	95.00%	2.97	0.302	0	1	0	0	2	1,836.84	137	153	TRUE	
SNU216_PC2_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	5	5	0.03%	10.90%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.33	0.433	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC2_02	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	3.57	0.323	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216_PC2_02	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	3.19	0.211	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	4	4	0.03%	4.65%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	4.42	0.0733	0	1	0	0	2	2,170.00	580	599	TRUE	
SNU216_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	4	4	0.03%	4.65%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	3.24	0.426	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	4	4	0.03%	4.65%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.78	0.434	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216_PC2_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	4	4	4	0.03%	4.65%	QGSGRESPSLASR	R	E	95.00%	2.08	0.302	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216_PC2_02	IMP dehydrogenase/GMP reductase family protein	IPI00217626	89,031.60	100.00%	2	2	5	0.03%	3.35%	FPPEDFRHSPEDFR	R	R	95.00%	3.09	0.364	0	0	3	0	2	1,855.78	567	580	TRUE	
SNU216_PC2_02	IMP dehydrogenase/GMP reductase family protein	IPI00217626	89,031.60	100.00%	2	2	5	0.03%	3.35%	SRSPLGFYVHLK	R	N	95.00%	3.6	0.388	0	0	2	0	2	1,483.75	278	289	TRUE	
SNU216_PC2_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.48	0.504	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC2_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.63	0.431	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	12.60%	ETSVSKEDTDHEEK	K	A	95.00%	2.52	0.377	0	1	0	0	2	1,713.69	114	127	TRUE	
SNU216_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	12.60%	ETSVSKEDTDHEEKASNEDVTK	K	A	80.40%	3.67	0.0906	0	0	1	0	2	2,558.08	114	135	TRUE	
SNU216_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	12.60%	QVETEEAGVVTTATASVNLKVSPK	K	R	95.00%	5.57	0.108	0	0	1	0	2	2,538.27	156	179	TRUE	
SNU216_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	12.60%	TGVTSTSDSEEEGDDQEGEK	K	K	82.20%	3.58	0.0022	0	1	0	0	2	2,259.77	267	286	TRUE	
SNU216_PC2_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	5	5	5	0.03%	12.60%	TGVTSTSDSEEEGDDQEGEKK	K	R	89.30%	3.64	0.0213	0	1	0	0	2	2,387.87	267	287	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	2	2	2	0.01%	2.75%	KVNVTVDYIRPASPATETVPAFSER	K	T	95.00%	4.23	0.356	0	0	1	0	2	2,827.40	414	438	TRUE	
SNU216_PC2_02	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	2	2	2	0.01%	2.75%	VNVTVDYIRPASPATETVPAFSER	K	T	95.00%	4.7	0.0884	0	0	1	0	2	2,699.31	415	438	TRUE	
SNU216_PC2_02	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	99.90%	2	2	2	0.01%	2.12%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.59	0.144	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216_PC2_02	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	99.90%	2	2	2	0.01%	2.12%	SAFTPATATGSSPSPVLGQGEKVEGLQAQA	R	A	95.00%	7.25	0.0342	0	0	1	0	2	3,681.80	891	925	TRUE	
SNU216_PC2_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	4	0.03%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	3.21	0.263	0	1	1	0	2	1,684.77	414	426	TRUE	
SNU216_PC2_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	4	0.03%	2.38%	RSQSIEQESQEK	R	Q	95.00%	3.06	0.193	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216_PC2_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	4	4	0.03%	2.38%	SQSIEQESQEK	R	Q	93.90%	2.03	0.216	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	AIISSSDDSSDEDKLK	K	I	80.50%	2.93	0.065	0	1	0	0	2	1,869.74	1034	1049	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	GEEGSDDDETENGPKPK	K	K	95.00%	4.08	0.477	0	1	1	0	2	1,883.72	988	1004	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	3.79	0.387	0	1	1	0	2	2,307.92	936	955	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	GSGSEQEGEDEEGGER	K	K	95.00%	2.56	0.512	0	1	0	0	2	1,811.56	962	977	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	5.6	0.554	0	1	1	0	2	2,436.01	935	955	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	KGSGSEQEGEDEEGGER	R	K	95.00%	3.7	0.502	0	2	0	0	2	1,939.66	961	977	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	KGSGSEQEGEDEEGGERK	R	K	95.00%	3.55	0.572	0	1	0	0	2	2,067.75	961	978	TRUE	
SNU216_PC2_02	136 kDa protein	IPI00005625	135,683.90	100.00%	8	12	14	0.09%	6.11%	RKGSGSEQEGEDEEGGER	R	K	95.00%	3.04	0.43	0	2	1	0	2	2,095.76	960	977	TRUE	
SNU216_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	99.80%	2	3	3	0.02%	8.16%	ITFITSFGGSDEEAAAAAAAAAASGVTTGKP	K	N	95.00%	6.46	0.497	0	0	1	1	2	4,099.98	311	354	TRUE	
SNU216_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	99.80%	2	3	3	0.02%	8.16%	RDSPTYDPYKR	R	S	95.00%	2.62	0.371	0	0	1	0	2	1,477.65	277	287	TRUE	
SNU216_PC2_02	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	3	0.02%	6.27%	LEPVYSPPGSPPPGDPR	R	I	95.00%	2.58	0.274	0	1	0	0	2	1,841.85	338	354	TRUE	
SNU216_PC2_02	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	3	0.02%	6.27%	SAMMQQVELDLR	R	E	94.40%	2.47	0.199	0	0	1	0	2	1,644.62	396	407	TRUE	
SNU216_PC2_02	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	3	0.02%	6.27%	SSPPLRTPDVLESSGPAVR	R	S	95.00%	3.57	0.368	0	0	1	0	2	2,045.01	675	693	TRUE	
SNU216_PC2_02	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.10%	APSASPLALHASR	R	L	95.00%	1.95	0.317	0	1	0	0	2	1,357.66	482	494	TRUE	
SNU216_PC2_02	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.10%	SLHPWYGITPTSSPK	K	T	95.00%	3.33	0.371	0	1	0	0	2	1,750.82	459	473	TRUE	
SNU216_PC2_02	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.10%	SPVPSPGSSSPQLQVK	R	S	95.00%	3.19	0.508	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216_PC2_02	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.07%	EDENDASDDEDDDEK	R	R	95.00%	3.24	0.577	0	1	0	0	2	1,820.55	256	270	TRUE	
SNU216_PC2_02	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.07%	EDENDASDDEDDDEKR	R	R	95.00%	3.73	0.402	0	1	0	0	2	1,976.65	256	271	TRUE	
SNU216_PC2_02	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.07%	LVREDENDASDDEDDDEK	R	R	95.00%	2.91	0.364	0	1	0	0	2	2,188.80	253	270	TRUE	
SNU216_PC2_02	Isoform A of GC-rich sequence DNA-binding facto	IPI00001364,IPI00069267	93,173.30	100.00%	4	4	4	0.03%	2.07%	LVREDENDASDDEDDDEKR	R	R	95.00%	5.14	0.504	0	0	1	0	2	2,344.91	253	271	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	RVNDAEPGSPEAPQGK	R	R	95.00%	3.14	0.32	0	1	0	0	2	1,731.77	75	90	TRUE	
SNU216_PC2_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	VNDAEPGSPEAPQGK	R	R	95.00%	2.89	0.415	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216_PC2_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	3	3	0.02%	1.11%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.2	0.498	0	1	0	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC2_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	3	3	0.02%	1.11%	SDEGQLSPATR	R	G	95.00%	2.08	0.227	0	1	0	0	2	1,240.52	714	724	TRUE	IPI00398002,IPI00398779
SNU216_PC2_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	3	3	0.02%	1.11%	SSSVGSSSSYPISPAVSR	R	T	91.60%	3.81	0.0349	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC2_02	Isoform 1 of Tetratricopeptide repeat protein 7B	IPI00337641,IPI00456534	84,458.00	99.80%	2	2	2	0.01%	5.53%	SPKPGPAPHDQELGFFLETGLQR	R	A	95.00%	3.67	0.244	0	0	1	0	2	2,601.25	100	122	TRUE	
SNU216_PC2_02	Isoform 1 of Tetratricopeptide repeat protein 7B	IPI00337641,IPI00456534	84,458.00	99.80%	2	2	2	0.01%	5.53%	VEQALSEVASSLQSSAPK	R	Q	95.00%	3.18	0.184	0	1	0	0	2	1,990.88	583	600	TRUE	
SNU216_PC2_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYK	R	R	95.00%	3.31	0.325	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216_PC2_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	3.24	0.208	0	0	1	0	2	1,563.74	384	396	TRUE	
SNU216_PC2_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	SFAGNLNTYKR	R	L	95.00%	2.22	0.227	0	1	0	0	2	1,350.62	386	396	TRUE	
SNU216_PC2_02	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	97,516.90	99.90%	2	2	2	0.01%	4.54%	AVSPPHLDGPPSPR	K	S	95.00%	2.18	0.312	0	1	0	0	2	1,506.71	516	529	TRUE	
SNU216_PC2_02	Isoform PML-1 of Probable transcription factor PM	IPI00022348,IPI00220453,IP	97,516.90	99.90%	2	2	2	0.01%	4.54%	SPVIGSEVFLPNSNHVASGAGEAEER	R	V	95.00%	4.59	0.488	0	0	1	0	2	2,733.25	530	555	TRUE	
SNU216_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.54%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	2.99	0.302	0	1	0	0	2	2,312.95	872	890	TRUE	
SNU216_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.54%	EKEEPPSPIEATPPQSLLEK	R	V	95.00%	3.25	0.222	0	0	1	0	2	2,299.11	468	487	TRUE	
SNU216_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.54%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.44	0.24	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.54%	KGSDDAPYSPTAR	R	V	95.00%	3.1	0.415	0	1	0	0	2	1,444.61	897	909	TRUE	
SNU216_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.54%	LEKSPLAGNK	K	D	94.70%	1.94	0.231	0	1	0	0	2	1,136.57	622	631	TRUE	
SNU216_PC2_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	6	7	7	0.04%	7.54%	LEKSPLAGNKDNK	K	F	92.50%	2.65	0.156	0	0	1	0	2	1,493.74	622	634	TRUE	
SNU216_PC2_02	PREDICTED: similar to ELG protein	IPI00740502	30,748.00	99.80%	2	2	2	0.01%	15.30%	AEAPAGPALGLPSPEAESGVDR	K	G	95.00%	4.97	0.542	0	1	0	0	2	2,171.00	13	34	TRUE	
SNU216_PC2_02	PREDICTED: similar to ELG protein	IPI00740502	30,748.00	99.80%	2	2	2	0.01%	15.30%	AEAPAGPALGLPSPEAESGVDRGEPEPMEV	K	S	95.00%	4.22	0.342	0	0	0	1	2	4,446.12	13	54	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	5	7	0.04%	3.10%	GLLYDSDEEDEERPAR	R	K	95.00%	3.48	0.515	0	2	2	0	2	1,973.81	134	149	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	5	7	0.04%	3.10%	RGLLYDSDEEDEERPAR	R	K	95.00%	3.13	0.142	0	1	0	0	2	2,129.91	133	149	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	5	7	0.04%	3.10%	RTDALTSSPGR	R	D	95.00%	2.6	0.362	1	0	1	0	2	1,240.57	34	44	TRUE	
SNU216_PC2_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	3	4	4	0.03%	15.00%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	2.35	0.42	0	1	0	0	2	2,786.98	127	147	TRUE	
SNU216_PC2_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	3	4	4	0.03%	15.00%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	2.84	0.232	0	0	1	0	2	2,850.13	44	65	TRUE	
SNU216_PC2_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	3	4	4	0.03%	15.00%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.52	0.619	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216_PC2_02	Meningioma-expressed antigen 5s splice variant	IPI00465449,IPI00477231	76,194.10	100.00%	1	2	2	0.01%	3.40%	LENEGSDEDIETDVLYSPQMALK	K	L	95.00%	6.02	0.549	0	1	1	0	2	2,676.16	359	381	TRUE	
SNU216_PC2_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	2	8	0.05%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	4.04	0.354	0	0	4	0	2	2,926.25	191	216	TRUE	
SNU216_PC2_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	2	8	0.05%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.75	0.179	0	0	4	0	2	3,082.36	191	217	TRUE	
SNU216_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	3	4	5	0.03%	6.72%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	5.49	0.449	0	0	1	1	2	3,457.45	100	129	TRUE	
SNU216_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	3	4	5	0.03%	6.72%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	K	95.00%	4.51	0.457	0	0	1	0	2	3,605.52	163	194	TRUE	
SNU216_PC2_02	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	3	4	5	0.03%	6.72%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	5.21	0.508	0	0	2	0	2	3,749.61	163	195	TRUE	
SNU216_PC2_02	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.79%	NPYLLSEEEDDDVDGDVNVEK	R	N	95.00%	5.38	0.51	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216_PC2_02	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	2	2	2	0.01%	2.79%	NPYLLSEEEDDDVDGDVNVEKNETEPPKGK	R	K	95.00%	4.86	0.248	0	0	1	0	2	3,454.51	412	441	TRUE	
SNU216_PC2_02	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	2	2	0.01%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.26	0.392	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216_PC2_02	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	2	2	0.01%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	6.23	0.527	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216_PC2_02	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	100.00%	3	4	4	0.03%	3.80%	AHFNAMFQPSSPTR	R	R	95.00%	4.18	0.486	0	1	1	0	2	1,670.71	894	907	TRUE	
SNU216_PC2_02	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	100.00%	3	4	4	0.03%	3.80%	DLDRPESQSPK	K	R	94.50%	2.53	0.14	0	1	0	0	2	1,351.59	170	180	TRUE	
SNU216_PC2_02	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	100.00%	3	4	4	0.03%	3.80%	RPGFSPTSHR	R	L	82.30%	2.02	0.183	0	0	1	0	2	1,221.55	908	917	TRUE	
SNU216_PC2_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	4	0.03%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.64	0.466	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216_PC2_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	4	0.03%	6.17%	WLDESDAEMELR	R	A	95.00%	2.97	0.395	0	3	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.96	0.56	0	1	1	0	2	2,433.86	225	246	TRUE	
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	AEQGSEEEGEGEEEEEEGGESKADDPYAHLS	K	K	95.00%	5.51	0.459	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	GGNVFAALQDQSEEEEEEEK	K	H	95.00%	4.53	0.319	0	1	0	0	2	2,431.02	129	149	TRUE	
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	6.36	0.623	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	5.87	0.503	0	0	1	1	2	3,659.47	224	256	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	5.27	0.515	0	3	1	1	2	2,174.04	104	122	TRUE	
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.41	0.47	0	3	2	0	2	2,045.94	105	122	TRUE	
SNU216_PC2_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	8	14	19	0.12%	11.00%	QQPPEPEWIGDGESTSPSDK	K	V	95.00%	3.9	0.446	0	1	0	0	2	2,263.94	7	26	TRUE	
SNU216_PC2_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	2.72%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.59	0.0836	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216_PC2_02	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	2.72%	QVLQSTQSPR	R	T	95.00%	2.38	0.227	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216_PC2_02	Nuclear pore complex protein Nup107	IPI00028005	106,376.70	100.00%	1	1	1	0.01%	2.38%	LRESSLMLLDQGLDPLGYEIQL	K	-	83.50%	3.58	0.167	0	0	1	0	2	2,679.24	904	925	TRUE	
SNU216_PC2_02	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	GSLAPQDSDSEVSQNR	K	S	95.00%	2.81	0.466	0	1	0	0	2	1,769.73	418	433	TRUE	
SNU216_PC2_02	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	HSSADNLANEMTYITETEDVFYTYK	R	G	95.00%	5.89	0.534	0	0	1	0	2	3,022.27	393	417	TRUE	
SNU216_PC2_02	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	100.00%	1	1	2	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	3.05	0.286	0	0	2	0	2	1,498.67	12	23	TRUE	
SNU216_PC2_02	Tripartite motif protein 56	IPI00514832	81,487.20	99.80%	1	1	1	0.01%	1.85%	AQTPHEDGGPQPHR	R	G	95.00%	2.47	0.388	0	1	0	0	2	1,606.68	440	453	TRUE	
SNU216_PC2_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	3.05%	RKSLVGTPYWMAPELISR	R	L	95.00%	4.03	0.394	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC2_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	3.05%	SLVGTPYWMAPELISR	K	L	95.00%	3.22	0.461	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216_PC2_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	4	5	5	0.03%	5.52%	AQGEPVAGHESPK	R	I	95.00%	3.02	0.466	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216_PC2_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	4	5	5	0.03%	5.52%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.23	0.539	0	1	1	0	2	2,016.94	789	806	TRUE	
SNU216_PC2_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	4	5	5	0.03%	5.52%	DSDQVAQSDGEESPAAEEQLLGEHIK	R	E	95.00%	4.65	0.475	0	0	1	0	2	2,862.23	520	545	TRUE	
SNU216_PC2_02	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	4	5	5	0.03%	5.52%	EQTLSPTITSGLHNIAR	R	S	95.00%	3.42	0.263	0	0	1	0	2	1,917.94	1159	1175	TRUE	
SNU216_PC2_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	2	2	2	0.01%	2.53%	RDSLTGSSDLYK	R	R	95.00%	3.8	0.457	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216_PC2_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	2	2	2	0.01%	2.53%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.96	0.344	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	7	0.04%	13.50%	AVEESSDEERQR	K	D	95.00%	1.84	0.303	0	1	0	0	2	1,594.58	138	149	TRUE	
SNU216_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	7	0.04%	13.50%	EESEESEAEPVQR	R	T	95.00%	3.23	0.363	0	2	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	7	0.04%	13.50%	ESEQESEEEILAQK	K	K	95.00%	3.51	0.315	0	1	0	0	2	1,728.72	222	235	TRUE	
SNU216_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	7	0.04%	13.50%	EVSDSEAGGGPQGER	R	K	95.00%	2.82	0.308	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	7	0.04%	13.50%	EVSDSEAGGGPQGERK	R	N	95.00%	3	0.413	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216_PC2_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	7	0.04%	13.50%	TLDSDEERPRPAPPDWSHMR	R	G	85.10%	3.05	0.134	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC2_02	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTK	K	R	95.00%	4.46	0.255	0	0	1	0	2	2,971.13	299	323	TRUE	
SNU216_PC2_02	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTKR	K	R	95.00%	3.86	0.278	0	0	1	0	2	3,127.23	299	324	TRUE	
SNU216_PC2_02	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	6	0.04%	2.81%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	95.00%	4.69	0.108	0	0	1	0	2	3,103.27	670	695	TRUE	
SNU216_PC2_02	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	6	0.04%	2.81%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.21	0.486	0	3	2	0	2	2,274.87	677	695	TRUE	
SNU216_PC2_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	2	3	4	0.03%	2.91%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.62	0.508	0	0	2	0	2	2,422.92	1355	1377	TRUE	
SNU216_PC2_02	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	2	3	4	0.03%	2.91%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	4.12	0.432	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.25%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	3.67	0.427	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.25%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	4.35	0.467	0	0	2	0	2	2,359.11	279	299	TRUE	
SNU216_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.25%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	4.01	0.314	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.25%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	3.32	0.367	0	0	2	0	2	2,623.23	346	369	TRUE	
SNU216_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.25%	MEVDRSPGLPMSDLK	R	T	95.00%	3.32	0.246	0	1	0	0	2	1,754.79	614	628	TRUE	
SNU216_PC2_02	myosin phosphatase-Rho interacting protein isofo	IPI00295457	118,105.80	100.00%	6	6	8	0.05%	9.25%	SKSLKEGLTVQER	R	L	95.00%	2.36	0.236	0	1	0	0	2	1,554.79	1014	1026	TRUE	
SNU216_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	4	5	0.03%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	7.6	0.437	0	0	1	2	2	3,353.45	35	69	TRUE	
SNU216_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	2	4	5	0.03%	3.52%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	7.99	0.46	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216_PC2_02	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	99,359.70	99.80%	2	3	3	0.02%	3.67%	ELQQAELPNRSPGFGIK	R	K	95.00%	2.56	0.287	0	1	0	0	2	1,963.96	822	838	TRUE	
SNU216_PC2_02	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	99,359.70	99.80%	2	3	3	0.02%	3.67%	GSPSSHLLGADHGLR	R	K	95.00%	2.93	0.325	0	1	1	0	2	1,583.73	763	777	TRUE	
SNU216_PC2_02	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	1	1	1	0.01%	1.56%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	4.87	0.423	0	0	1	0	2	2,778.05	587	608	TRUE	
SNU216_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	11	0.07%	9.05%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	5.28	0.512	0	0	4	0	2	3,291.30	348	375	TRUE	
SNU216_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	11	0.07%	9.05%	GDMSDEDDENEFFDAPEIITMPENLGHKR	K	T	95.00%	3.9	0.384	0	0	1	1	2	3,431.41	348	376	TRUE	
SNU216_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	11	0.07%	9.05%	MLAESDESGDEESVSQTDK	K	T	95.00%	3.34	0.402	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	11	0.07%	9.05%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.71	0.424	0	0	3	0	2	3,172.29	186	212	TRUE	
SNU216_PC2_02	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	5	6	11	0.07%	9.05%	SLSELESLKLPAESNEK	R	I	95.00%	3.01	0.421	0	1	0	0	2	1,953.94	238	254	TRUE	
SNU216_PC2_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.49%	GLGHPPSSPLLK	K	K	95.00%	2.13	0.302	0	1	0	0	2	1,282.66	894	905	TRUE	
SNU216_PC2_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.49%	KTPLALAGSPTPK	K	N	95.00%	2.54	0.185	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216_PC2_02	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	3	3	3	0.02%	2.49%	NPEDKSPQLSLSPR	K	P	95.00%	3.15	0.261	0	1	0	0	2	1,647.77	919	932	TRUE	
SNU216_PC2_02	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	38,420.30	99.80%	1	1	2	0.01%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.06	0.419	0	2	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC2_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	3	0.02%	4.44%	ESVSPEDSEK	K	K	86.80%	1.98	0.146	1	0	0	0	2	1,186.45	365	374	TRUE	
SNU216_PC2_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	3	0.02%	4.44%	IIYDSDSESEETLQVK	R	N	95.00%	4.02	0.0599	0	1	0	0	2	1,935.85	65	80	TRUE	
SNU216_PC2_02	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	3	0.02%	4.44%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	2.8	0.408	0	0	0	1	2	2,798.45	152	176	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	8	8	0.05%	10.30%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	3.3	0.283	0	0	1	1	2	2,976.44	103	129	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	8	8	0.05%	10.30%	LNDPFQPFPGNDSPK	K	E	95.00%	3.32	0.374	0	1	0	0	2	1,752.76	668	682	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	8	8	0.05%	10.30%	NIIGSSPVADFSAIK	K	E	95.00%	2.6	0.273	0	1	0	0	2	1,598.78	319	333	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	8	8	0.05%	10.30%	SINKLDSPDPFK	R	L	95.00%	3.13	0.327	0	1	0	0	2	1,440.68	656	667	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	8	8	0.05%	10.30%	SINKLDSPDPFKLNDPFQPFPGNDSPK	R	E	95.00%	5.01	0.436	0	0	1	0	2	3,094.46	656	682	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	6	8	8	0.05%	10.30%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	3.65	0.282	0	1	1	0	2	2,483.14	428	450	TRUE	
SNU216_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	9	0.06%	20.10%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	3.76	0.495	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	9	0.06%	20.10%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	85.20%	6.29	0.0021	0	0	2	0	2	3,553.49	264	296	TRUE	
SNU216_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	9	0.06%	20.10%	QSSPSGSEQLVR	R	R	95.00%	2.46	0.388	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	9	0.06%	20.10%	RSSTSGDTEEEEEEEVVPFSSDEQK	R	R	95.00%	5	0.0073	0	2	0	0	2	2,910.17	16	40	TRUE	
SNU216_PC2_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	5	6	9	0.06%	20.10%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	95.00%	7.65	0.0013	0	0	2	0	2	3,066.27	16	41	TRUE	
SNU216_PC2_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	99.80%	2	3	3	0.02%	3.43%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.2	0.413	0	1	0	0	2	1,993.88	1024	1042	TRUE	
SNU216_PC2_02	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	99.80%	2	3	3	0.02%	3.43%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.42	0.515	0	1	1	0	2	2,329.01	1043	1066	TRUE	
SNU216_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.97%	AQKEEEEEEEGSPQEEEEEEEENR	R	A	95.00%	4.58	0.475	0	0	1	0	2	3,130.17	657	681	TRUE	
SNU216_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.97%	ELSPEGPGK	R	E	95.00%	1.8	0.269	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.97%	LPLLPPESPGPLR	R	Q	95.00%	1.88	0.292	0	1	0	0	2	1,465.78	846	858	TRUE	
SNU216_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.97%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	2.71	0.217	0	0	1	0	2	2,609.20	816	837	TRUE	
SNU216_PC2_02	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.97%	RVSLVGADDLRK	K	M	95.00%	2.02	0.225	0	0	1	0	2	1,408.73	1376	1387	TRUE	
SNU216_PC2_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	3	3	0.02%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	4.19	0.467	0	1	0	0	2	2,118.77	1060	1079	TRUE	
SNU216_PC2_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	3	3	0.02%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	95.00%	2.8	0.323	0	1	0	0	2	2,044.93	1080	1099	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	3	3	0.02%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.59	0.348	0	0	1	0	2	2,246.87	1059	1079	TRUE	
SNU216_PC2_02	CAD protein	IPI00301263	242,982.50	99.80%	2	2	2	0.01%	2.34%	IHRASDPGLPAEEPK	R	E	95.00%	3.4	0.262	0	0	1	0	2	1,696.81	1855	1869	TRUE	
SNU216_PC2_02	CAD protein	IPI00301263	242,982.50	99.80%	2	2	2	0.01%	2.34%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	4.49	0.369	0	0	0	1	2	4,052.11	1898	1934	TRUE	
SNU216_PC2_02	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	99.50%	2	2	2	0.01%	2.15%	VQAYEEPSVASSPNGK	R	E	95.00%	3.77	0.392	0	1	0	0	2	1,742.76	719	734	TRUE	
SNU216_PC2_02	Ribonucleases P/MRP protein subunit POP1	IPI00293331	114,710.30	99.50%	2	2	2	0.01%	2.15%	VQAYEEPSVASSPNGKESDLRR	R	S	89.20%	3.67	0.193	0	0	0	1	2	2,499.15	719	740	TRUE	
SNU216_PC2_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	HASAPSHVQPSDSEK	R	N	95.00%	3.08	0.277	0	0	1	0	2	1,656.70	340	354	TRUE	
SNU216_PC2_02	TBC1 domain family, member 4	IPI00220901	146,687.40	99.80%	2	2	2	0.01%	2.08%	SLTSSLENIFSR	R	G	95.00%	2.36	0.335	0	1	0	0	2	1,433.67	567	578	TRUE	
SNU216_PC2_02	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	1	3	3	0.02%	2.75%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	4.83	0.414	0	1	1	1	2	2,616.22	446	467	TRUE	
SNU216_PC2_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	4	6	0.04%	7.50%	EPTPSIASDISLPIATQELR	K	Q	95.00%	3.07	0.439	0	3	0	0	2	2,218.10	723	742	TRUE	
SNU216_PC2_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	4	6	0.04%	7.50%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	5.57	0.0546	0	0	1	1	2	3,133.36	660	691	TRUE	
SNU216_PC2_02	KIAA1228 protein	IPI00409635	98,904.50	100.00%	3	4	6	0.04%	7.50%	SSSSLLASPGHISVKEPTPSIASDISLPIATQEL	R	Q	95.00%	5.14	0.0908	0	0	1	0	2	3,748.84	708	742	TRUE	
SNU216_PC2_02	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	100.00%	1	2	2	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	2.98	0.411	0	1	1	0	2	1,851.90	937	951	TRUE	
SNU216_PC2_02	EML3 protein	IPI00167909	95,197.10	98.90%	1	1	1	0.01%	1.12%	AISSANLLVR	K	S	95.00%	2.26	0.338	0	1	0	0	2	1,123.59	174	183	TRUE	
SNU216_PC2_02	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	2	2	2	0.01%	3.62%	HYGITSPISLAAPK	K	E	95.00%	4.51	0.449	0	1	0	0	2	1,534.77	19	32	TRUE	
SNU216_PC2_02	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	2	2	2	0.01%	3.62%	TSPLNSSGSSQGR	K	N	95.00%	2.83	0.447	0	1	0	0	2	1,357.57	544	556	TRUE	
SNU216_PC2_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	99.80%	1	2	2	0.01%	3.95%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.32	0.317	0	0	1	1	2	2,450.06	90	113	TRUE	
SNU216_PC2_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	3.49%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	3.39	0.295	0	0	1	0	2	2,030.85	281	298	TRUE	
SNU216_PC2_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	3.49%	KPLAAPGDGEGLGQTAQPSPPAR	R	D	95.00%	4.21	0.451	0	0	1	0	2	2,295.11	741	763	TRUE	
SNU216_PC2_02	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	3.49%	RRSPQEGPTWSR	R	G	95.00%	2.95	0.193	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216_PC2_02	Putative rRNA methyltransferase 3	IPI00217686	96,577.50	100.00%	1	1	1	0.01%	2.95%	ALDISLSSGEEDEGDEEDSTAGTTK	K	Q	95.00%	4.79	0.469	0	1	0	0	2	2,716.03	329	353	TRUE	
SNU216_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.6	0.512	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	SSSPAPEFLASSPPDNK	K	S	95.00%	2.91	0.303	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	SSSPAPEFLASSPPDNKSPDEATAADQESED	K	T	95.00%	5.93	0.123	0	0	1	0	2	3,885.65	861	897	TRUE	
SNU216_PC2_02	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.03%	4.98%	VSAGEPGSHPSPAPR	K	R	95.00%	3.28	0.46	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	7	8	0.05%	11.90%	AGKEPAKPSPSR	K	D	95.00%	3.17	0.299	0	1	1	0	2	1,304.64	636	647	TRUE	
SNU216_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	7	8	0.05%	11.90%	RTEGYAAFQEDSSGDEAESPSK	K	M	95.00%	3.14	0.273	0	0	1	0	2	2,520.94	80	101	TRUE	
SNU216_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	7	8	0.05%	11.90%	TEGYAAFQEDSSGDEAESPSK	R	M	95.00%	3.01	0.159	0	1	0	0	2	2,364.84	81	101	TRUE	
SNU216_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	7	8	0.05%	11.90%	TGEPSPPHDILHEPPDVVSDDEKDHGK	R	K	95.00%	4.8	0.328	0	0	0	2	2	3,107.30	43	69	TRUE	
SNU216_PC2_02	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	5	7	8	0.05%	11.90%	TPSSEEISPTKFPGLYR	R	T	95.00%	2.91	0.38	0	1	1	0	2	1,988.94	26	42	TRUE	
SNU216_PC2_02	RNA binding motif protein 15B	IPI00175136	97,208.40	99.80%	2	2	2	0.01%	2.92%	SLSPVAAPPLREPR	R	A	88.70%	2.35	0.195	0	0	1	0	2	1,569.82	265	278	TRUE	
SNU216_PC2_02	RNA binding motif protein 15B	IPI00175136	97,208.40	99.80%	2	2	2	0.01%	2.92%	TFLEGDWTSPSK	R	S	95.00%	2.01	0.368	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216_PC2_02	DNA-repair protein complementing XP-C cells	IPI00156793	105,851.90	99.80%	2	3	3	0.02%	3.41%	SKPSSSEEDEGPGDKQEK	R	A	95.00%	2.33	0.355	0	1	1	0	2	2,173.76	393	410	TRUE	
SNU216_PC2_02	DNA-repair protein complementing XP-C cells	IPI00156793	105,851.90	99.80%	2	3	3	0.02%	3.41%	VIKDEALSDGDDLR	K	D	95.00%	1.98	0.288	0	1	0	0	2	1,625.74	86	99	TRUE	
SNU216_PC2_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.82	0.428	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216_PC2_02	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	99.80%	2	2	2	0.01%	1.27%	SSDGSLSHEEDLAK	R	V	95.00%	3	0.316	0	1	0	0	2	1,554.63	238	251	TRUE	
SNU216_PC2_02	Isoform 2 of Rho-GTPase-activating protein 12	IPI00217418,IPI00328279,IP	90,875.90	99.80%	2	3	4	0.03%	5.15%	ATTPPNQGRPDSPVYANLQELK	R	I	95.00%	2.98	0.345	0	1	1	0	2	2,556.15	229	250	TRUE	
SNU216_PC2_02	Isoform 2 of Rho-GTPase-activating protein 12	IPI00217418,IPI00328279,IP	90,875.90	99.80%	2	3	4	0.03%	5.15%	IHQDSESGDELSSSSTEQIR	R	A	95.00%	2.95	0.329	0	2	0	0	2	2,364.92	209	228	TRUE	
SNU216_PC2_02	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	4	5	8	0.05%	17.20%	AAPEASSPPASPLQHLLPGK	K	A	95.00%	3.88	0.443	0	2	0	0	2	2,048.02	686	705	TRUE	
SNU216_PC2_02	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	4	5	8	0.05%	17.20%	AVDLGPPKPSDQETGEQVSSPSSHPALHTT	K	-	86.60%	4.3	0.14	0	0	0	1	2	4,313.94	706	746	TRUE	
SNU216_PC2_02	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	4	5	8	0.05%	17.20%	GLLAQGLRPESPPPAGPLLNGAPAGESPQPI	R	A	95.00%	5.76	0.472	0	0	3	1	2	3,176.55	655	685	TRUE	
SNU216_PC2_02	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	4	5	8	0.05%	17.20%	QVVSVVQDEEVGLPFEASPESPPPASPDGV	K	G	95.00%	6.07	0.562	0	0	1	0	2	3,641.73	621	654	TRUE	
SNU216_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	6	6	0.04%	8.88%	DRSSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	4.46	0.468	0	0	1	0	2	2,755.34	361	384	TRUE	
SNU216_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	6	6	0.04%	8.88%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	5.05	0.539	0	1	1	0	2	2,253.98	444	462	TRUE	
SNU216_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	6	6	0.04%	8.88%	SRWSGSHQFEQLSGSILWMAPEVIR	K	M	95.00%	5.11	0.343	0	0	1	0	2	2,981.41	602	626	TRUE	
SNU216_PC2_02	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	4	6	6	0.04%	8.88%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	4.73	0.481	0	1	1	0	2	2,484.21	363	384	TRUE	
SNU216_PC2_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	4.23	0.386	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216_PC2_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.80%	2	2	2	0.01%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.73	0.221	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216_PC2_02	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.80%	1	2	2	0.01%	1.65%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.68	0.616	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	5	5	0.03%	7.78%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	4.95	0.466	0	1	1	0	2	2,892.32	290	313	TRUE	
SNU216_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	5	5	0.03%	7.78%	HDEESHSLSPPGENTVMADSFQIK	R	V	95.00%	4.09	0.372	0	0	1	0	2	2,735.17	518	541	TRUE	
SNU216_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	5	5	0.03%	7.78%	SNSLPIKK	R	T	91.90%	1.71	0.245	0	1	0	0	2	966.5021	417	424	TRUE	
SNU216_PC2_02	Calmin	IPI00101942	111,652.50	100.00%	4	5	5	0.03%	7.78%	VPSPHETKPDEDAEAFENHAEK	K	L	95.00%	4.05	0.3	0	0	0	1	2	2,557.09	583	604	TRUE	
SNU216_PC2_02	DNA topoisomerase 1	IPI00413611	90,729.70	100.00%	1	1	1	0.01%	3.40%	EKENGFSSPPQIKDEPEDDGYFVPPK	K	E	95.00%	3.86	0.187	0	0	1	0	2	3,029.35	105	130	TRUE	
SNU216_PC2_02	FCH domain only 2	IPI00472794	89,293.90	99.80%	2	2	2	0.01%	7.00%	GPSPVSLGNQDTLPVAVALTESVNAYFK	R	G	95.00%	5.96	0.594	0	0	1	0	2	2,954.45	535	562	TRUE	
SNU216_PC2_02	FCH domain only 2	IPI00472794	89,293.90	99.80%	2	2	2	0.01%	7.00%	LSGINEIPRPFSPPVTSNTSPPPAAPLAR	K	A	95.00%	4.68	0.104	0	0	1	0	2	3,063.57	481	509	TRUE	
SNU216_PC2_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	3	0.02%	7.41%	NSQEDSEDSEDKDVK	K	T	95.00%	3.7	0.355	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC2_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	2	3	0.02%	7.41%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	2.46	0.271	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216_PC2_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.87	0.434	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216_PC2_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	3.05	0.426	0	1	0	0	2	2,089.00	609	627	TRUE	
SNU216_PC2_02	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	4.67	0.44	0	0	2	0	2	2,992.36	1263	1291	TRUE	
SNU216_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.90%	2	3	3	0.02%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	4.96	0.409	0	0	1	1	2	2,780.35	101	124	TRUE	
SNU216_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	122,610.20	99.90%	2	3	3	0.02%	2.28%	SPTSPLNMK	K	L	95.00%	1.97	0.477	0	1	0	0	2	1,054.46	116	124	TRUE	
SNU216_PC2_02	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	3	3	3	0.02%	9.22%	KEPDDSRDEDEDEDESSEEDSEDEEPPPK	K	R	95.00%	4.73	0.591	0	0	1	0	2	3,618.19	426	454	TRUE	
SNU216_PC2_02	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	3	3	3	0.02%	9.22%	QTPMASSPRPK	K	M	95.00%	2.4	0.253	0	1	0	0	2	1,279.59	150	160	TRUE	
SNU216_PC2_02	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	3	3	3	0.02%	9.22%	TVNSTRETPPK	R	S	84.00%	1.88	0.248	0	1	0	0	2	1,309.61	44	54	TRUE	
SNU216_PC2_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.79	0.166	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC2_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	RGSIGENQIK	K	D	95.00%	2.85	0.222	0	1	0	0	2	1,181.57	194	203	TRUE	
SNU216_PC2_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	RGSIGENQIKDEK	K	I	95.00%	4.12	0.213	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC2_02	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	117,494.20	99.60%	2	3	3	0.02%	3.79%	ADSEYTDKLQHYTSGHMTPGMK	R	I	95.00%	4.6	0.462	0	0	1	1	2	2,577.08	573	594	TRUE	
SNU216_PC2_02	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	117,494.20	99.60%	2	3	3	0.02%	3.79%	FLEDDTSDPTYTSALGGK	R	I	92.30%	3.8	0.0207	0	1	0	0	2	1,996.84	770	787	TRUE	
SNU216_PC2_02	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	ESENSGDSGYPSEK	R	R	95.00%	2.96	0.387	0	1	0	0	2	1,565.56	434	447	TRUE	
SNU216_PC2_02	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	3	0.02%	3.86%	KYESDEDSLGSSGR	R	V	95.00%	2.77	0.346	0	2	0	0	2	1,689.60	467	480	TRUE	
SNU216_PC2_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	4	4	0.03%	9.21%	GDSLKEPTSIAESSR	R	H	95.00%	2.34	0.34	0	1	1	0	2	1,656.75	325	339	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	4	4	0.03%	9.21%	SKGSLEITESQSADAEPPPPPKPDLSR	K	Y	95.00%	4.69	0.09	0	0	1	0	2	2,913.39	243	269	TRUE	
SNU216_PC2_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	4	4	0.03%	9.21%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.23	0.277	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	AKNWEDEDFYDSDDDTFLDR	K	T	95.00%	4.64	0.566	0	1	1	0	2	2,575.98	455	474	TRUE	
SNU216_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	KMLGEDSDEEEEMDTSER	K	K	95.00%	4.89	0.59	0	1	1	0	2	2,209.82	306	323	TRUE	
SNU216_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	MLGEDSDEEEEMDTSER	K	K	95.00%	3.5	0.39	0	1	0	0	2	2,081.72	307	323	TRUE	
SNU216_PC2_02	Kanadaptin	IPI00306749	89,016.60	100.00%	4	6	6	0.04%	4.76%	NWEDEDFYDSDDDTFLDR	K	T	95.00%	4.05	0.453	0	1	0	0	2	2,376.85	457	474	TRUE	
SNU216_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	10	0.06%	24.90%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.14	0.344	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	10	0.06%	24.90%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.29	0.383	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	10	0.06%	24.90%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.11	0.566	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	10	0.06%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.79	0.416	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC2_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	7	10	0.06%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.11	0.625	0	0	1	4	2	3,735.89	46	80	TRUE	
SNU216_PC2_02	Isoform 1 of High-affinity cAMP-specific and IBM	IPI00030976,IPI00182447,IP	93,306.40	99.80%	1	1	1	0.01%	1.45%	RLSGNEYVLSTK	R	N	95.00%	2.63	0.164	0	1	0	0	2	1,446.70	455	466	TRUE	
SNU216_PC2_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	3	3	0.02%	3.86%	SKPIPIMPASPQK	K	G	95.00%	3.07	0.375	0	1	1	0	2	1,473.75	596	608	TRUE	
SNU216_PC2_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	3	3	0.02%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	2.49	0.23	0	0	0	1	2	3,011.63	596	623	TRUE	
SNU216_PC2_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	5	5	0.03%	5.55%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	3.66	0.251	0	0	1	1	2	2,851.43	615	639	TRUE	
SNU216_PC2_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	5	5	0.03%	5.55%	RASQEANLLTLAQK	R	A	95.00%	3.18	0.172	0	1	1	0	2	1,622.83	459	472	TRUE	
SNU216_PC2_02	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	5	5	0.03%	5.55%	SHESNAPGSAGGQASEKPR	R	E	95.00%	4.37	0.458	0	0	1	0	2	1,946.84	988	1006	TRUE	
SNU216_PC2_02	Isoform 1 of Filamin-C	IPI00178352,IPI00413958	291,286.30	98.80%	1	1	1	0.01%	0.48%	VTGEGRMKESITR	K	R	95.00%	2.5	0.242	0	0	1	0	2	1,623.70	2128	2140	TRUE	
SNU216_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.40%	2	2	2	0.01%	2.85%	ATSPVKSTTSITDAK	K	S	95.00%	3.08	0.441	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC2_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.40%	2	2	2	0.01%	2.85%	DKSTTPGGTGIKPFLER	K	F	88.70%	2.5	0.22	0	0	1	0	2	1,883.93	360	376	TRUE	
SNU216_PC2_02	Hypothetical protein FLJ23660	IPI00152701	89,259.90	99.80%	2	2	2	0.01%	5.20%	ALSDREEEEEDDEEEEEEVEAAAQR	R	R	95.00%	5.33	0.362	0	0	1	0	2	3,016.17	494	518	TRUE	
SNU216_PC2_02	Hypothetical protein FLJ23660	IPI00152701	89,259.90	99.80%	2	2	2	0.01%	5.20%	APSQHIFFVQHIEAVR	R	E	95.00%	3.89	0.388	0	0	1	0	2	1,958.96	103	118	TRUE	
SNU216_PC2_02	Lupus La protein	IPI00009032	46,839.00	99.80%	2	3	3	0.02%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	3.24	0.288	0	0	1	1	2	2,405.96	364	384	TRUE	
SNU216_PC2_02	Lupus La protein	IPI00009032	46,839.00	99.80%	2	3	3	0.02%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	3.75	0.364	0	0	0	1	2	2,635.11	362	384	TRUE	
SNU216_PC2_02	triple functional domain	IPI00657953	346,902.60	100.00%	3	3	3	0.02%	1.32%	GAANASGSSPDAPAK	K	D	94.50%	2.58	0.164	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216_PC2_02	triple functional domain	IPI00657953	346,902.60	100.00%	3	3	3	0.02%	1.32%	KGAANASGSSPDAPAK	R	D	95.00%	4.03	0.399	0	1	0	0	2	1,508.67	2420	2435	TRUE	
SNU216_PC2_02	triple functional domain	IPI00657953	346,902.60	100.00%	3	3	3	0.02%	1.32%	LLVRPTSSETPSAAELVSAIEELVK	R	S	84.40%	6.24	0.002	0	0	1	0	2	2,719.42	1894	1918	TRUE	
SNU216_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.97	0.54	0	1	1	0	2	2,319.95	172	193	TRUE	
SNU216_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHK	R	K	95.00%	5.26	0.401	0	0	1	0	2	2,991.38	621	648	TRUE	
SNU216_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHKKP	R	R	95.00%	5.29	0.371	0	0	0	1	2	3,720.74	621	654	TRUE	
SNU216_PC2_02	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	5	6	0.04%	10.00%	YVDEENSDGETSNHR	K	L	95.00%	3.73	0.572	0	2	0	0	2	1,831.68	136	150	TRUE	
SNU216_PC2_02	Ubiquitin-like PHD and RING finger domain-cont	IPI00066641,IPI00645728	81,988.60	99.80%	1	2	2	0.01%	2.02%	IERPGEGSPMVDNPMR	K	R	95.00%	3.6	0.408	0	1	1	0	2	1,864.81	293	308	TRUE	
SNU216_PC2_02	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.80%	1	1	2	0.01%	3.14%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	5.36	0.481	0	0	2	0	2	3,734.84	125	160	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	6.11%	AAVVTSPPPTTAPHK	R	E	95.00%	2.6	0.427	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	6.11%	SPGSPVGEGTGSPPK	R	W	95.00%	2.97	0.421	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	6.11%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	5.29	0.504	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC2_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	6.11%	SRSPGSPVGEGTGSPPK	K	W	89.10%	2.68	0.122	0	1	0	0	2	1,676.76	353	369	TRUE	
SNU216_PC2_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	99.90%	2	2	2	0.01%	2.22%	HHSSSSQSGSSIQRHSPSPR	R	R	95.00%	2.51	0.235	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216_PC2_02	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	99.90%	2	2	2	0.01%	2.22%	SKGDSDISDEEAAQQSK	K	K	95.00%	3.11	0.4	0	1	0	0	2	1,874.77	1010	1026	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	4	5	0.03%	7.29%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	3.87	0.413	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	4	5	0.03%	7.29%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	3.28	0.321	0	1	2	0	2	2,009.92	238	257	TRUE	
SNU216_PC2_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	100.00%	3	4	5	0.03%	7.29%	TVFPGAVPVLPASPPPKDSLR	K	S	95.00%	3.74	0.305	0	0	1	0	2	2,225.17	217	237	TRUE	
SNU216_PC2_02	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	100.00%	3	4	4	0.03%	7.63%	EAANEAGDSSQDEAEDDVK	R	Q	95.00%	3.54	0.464	0	1	0	0	2	2,139.73	153	171	TRUE	
SNU216_PC2_02	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	100.00%	3	4	4	0.03%	7.63%	EREAANEAGDSSQDEAEDDVK	R	Q	95.00%	4.49	0.509	0	1	0	0	2	2,424.87	151	171	TRUE	
SNU216_PC2_02	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	100.00%	3	4	4	0.03%	7.63%	IKEEPVSEEGEEDEEQEAEEEPMDTSPSGLH	R	L	95.00%	5.21	0.495	0	0	1	1	2	3,780.55	497	529	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	AEAPLPSPK	K	L	95.00%	2.26	0.384	0	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.42	0.507	0	3	2	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	ASLGSLEGEAEAEASSPKGK	K	F	94.80%	3.35	0.18	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	93.50%	4.13	0	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	FKAEAPLPSPK	K	L	95.00%	2.41	0.215	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	GGVTGSPEASISGSK	K	G	95.00%	2.28	0.26	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.13	0.206	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	GHYEVTGSDDETGK	K	L	95.00%	2.45	0.429	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.98	0.501	0	1	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	GKGGVTGSPEASISGSK	K	G	95.00%	3.83	0.134	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	GPAFNMASPESDFGINLK	K	G	95.00%	3.64	0.438	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	ISAPNVDFNLEGPK	R	V	95.00%	2.66	0.468	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	ISMQDVDLSLGSPK	K	L	95.00%	2.63	0.209	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	ISMSEVDLNVAAPK	R	V	95.00%	2.83	0.383	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	SKGHYEVTGSDDETGK	K	L	95.00%	3.45	0.439	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	94.40%	4.92	0.0743	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	90.60%	5.28	0.0605	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.45	0.109	0	1	0	0	2	2,194.92	2816	2836	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	VKTPEMIIQKPK	K	I	95.00%	2.76	0.324	0	1	0	0	2	1,491.80	241	252	TRUE	
SNU216_PC2_02	313 kDa protein	IPI00555610	312,537.10	100.00%	20	23	26	0.17%	7.02%	VSVGAPDLSLEASEGSIKLPK	K	M	95.00%	3.12	0.204	0	0	1	0	2	2,177.11	2456	2476	TRUE	
SNU216_PC2_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	4	0.03%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.33	0.337	0	2	1	0	2	1,673.69	221	235	TRUE	
SNU216_PC2_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	4	0.03%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.47	0.144	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216_PC2_02	SCC-112 protein	IPI00303063	150,835.50	100.00%	1	1	1	0.01%	1.27%	AAVGQESPGGLEAGNAK	R	A	95.00%	3.11	0.356	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	4	4	0.03%	4.53%	ALEEGDGSVSGSSPR	R	S	95.00%	3.58	0.447	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	4	4	0.03%	4.53%	IDENSDKEMEVEESPEK	K	I	95.00%	4.43	0.396	0	1	0	0	2	2,087.84	493	509	TRUE	
SNU216_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	4	4	0.03%	4.53%	IDENSDKEMEVEESPEKIK	K	V	95.00%	2.75	0.178	0	0	1	0	2	2,408.98	493	511	TRUE	
SNU216_PC2_02	Formin binding protein 4	IPI00170778	110,063.40	100.00%	4	4	4	0.03%	4.53%	RPILQLSPPGPR	R	G	95.00%	2.3	0.244	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216_PC2_02	Kinase-like protein	IPI00102059	89,631.90	99.80%	1	2	2	0.01%	2.85%	PSTQPRPDSWGEDNWEGLETDSR	R	Q	95.00%	5.03	0.451	0	1	1	0	2	2,739.13	746	768	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	13.70%	AHAWPSPYK	R	D	95.00%	2.08	0.359	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216_PC2_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	13.70%	AHAWPSPYKDYEVK	R	K	95.00%	3.48	0.368	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216_PC2_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	3	4	4	0.03%	13.70%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	95.00%	4.27	0.263	0	0	0	1	2	4,125.84	299	333	TRUE	
SNU216_PC2_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.78	0.34	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	ASAVSELSPR	R	E	95.00%	1.81	0.31	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	DNIQPTTE	K	-	81.60%	1.6	0.151	1	0	0	0	2	997.3876	948	955	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	EKGSFSDTGLGDGK	K	M	95.00%	2.53	0.323	0	1	0	0	2	1,477.62	374	387	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	ERSPALKSPLQSVVVR	R	R	95.00%	2.95	0.417	0	2	3	0	2	1,925.96	246	261	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	FSGEEGEIEDDESGTENREEK	K	D	95.00%	3.45	0.324	0	1	0	0	2	2,465.95	927	947	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	FSGEEGEIEDDESGTENREEKDNIQPTTE	K	-	95.00%	4.28	0.302	0	0	1	0	2	3,364.35	927	955	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	GSFSDTGLGDGK	K	M	95.00%	2.05	0.319	0	1	0	0	2	1,220.48	376	387	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	HGLAHDEMKSPR	K	E	95.00%	2.74	0.488	0	1	0	0	2	1,457.64	689	700	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	HGLAHDEMKSPREPGYK	K	A	95.00%	3.75	0.307	0	0	0	1	2	2,031.91	689	705	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	KHGLAHDEMKSPR	R	E	95.00%	2.4	0.353	0	1	0	0	2	1,585.73	688	700	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	KSPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.67	0.306	0	0	2	0	2	2,059.97	314	333	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	MDSFDEDLAR	R	P	86.10%	2.21	0.139	0	1	0	0	2	1,278.47	573	582	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	SPALKSPLQSVVVR	R	R	95.00%	2.65	0.291	0	1	0	0	2	1,560.85	248	261	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	SPPSTGSTYGSSQK	K	E	95.00%	2.75	0.481	0	1	0	0	2	1,463.61	320	333	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	SPPSTGSTYGSSQKEESAASGGAAYTK	K	R	95.00%	3.84	0.164	0	0	1	0	2	2,686.15	320	346	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	SPSELFAQHIVTIVHHVK	R	E	95.00%	2.56	0.264	0	0	1	0	2	2,122.08	622	639	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	4.35	0.143	0	2	1	0	2	1,931.87	315	333	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	TDSEKPFRGSQSPK	K	R	95.00%	2.57	0.27	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	5.45	0.584	0	0	3	0	2	2,717.06	922	944	TRUE	
SNU216_PC2_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	20	23	31	0.20%	17.50%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.65	0.435	0	0	2	1	2	3,103.24	922	947	TRUE	
SNU216_PC2_02	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	5.35%	FAEDEEKSENSSEDGDITDK	R	S	95.00%	2.86	0.57	0	1	0	0	2	2,484.83	310	329	TRUE	
SNU216_PC2_02	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	5.35%	KAQEAEAQSEDDDEDTEEEQGEEK	K	E	95.00%	3.91	0.363	0	0	1	0	2	2,899.02	272	295	TRUE	
SNU216_PC2_02	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	3	3	3	0.02%	5.35%	KAQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	5.36	0.52	0	0	1	0	2	3,156.16	272	297	TRUE	
SNU216_PC2_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RGSSSGSVDETLFALPAASEPVIR	R	S	95.00%	5.05	0.478	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216_PC2_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.46	0.444	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	4	4	4	0.03%	3.47%	DSSFTEVPRSPK	R	H	95.00%	2.92	0.394	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	4	4	4	0.03%	3.47%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.24	0.337	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	4	4	4	0.03%	3.47%	SPSFGDPQLSPEAR	R	P	95.00%	2.89	0.192	0	1	0	0	2	1,567.68	261	274	TRUE	
SNU216_PC2_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	4	4	4	0.03%	3.47%	YGSFEEAEASYPILNR	K	A	95.00%	3.27	0.131	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216_PC2_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	18	0.12%	8.95%	AEEPPSQLDQDTQVQDMDEGSDDEEEGQI	K	V	95.00%	5.48	0.456	0	0	2	0	2	3,329.28	339	367	TRUE	
SNU216_PC2_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	18	0.12%	8.95%	EKQSDDEVYAPGLDIESSLK	R	Q	95.00%	4.25	0.48	0	1	1	0	2	2,303.03	448	467	TRUE	
SNU216_PC2_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	18	0.12%	8.95%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	6.36	0.456	0	2	12	0	2	2,697.03	317	338	TRUE	
SNU216_PC2_02	DEAH (Asp-Glu-Ala-His) box polypeptide 34 isofo	IPI00385022,IPI00413483	99,019.10	99.80%	1	1	1	0.01%	1.22%	LQEEQDGGSSDEDR	R	A	95.00%	2.14	0.292	0	1	0	0	2	1,724.57	741	754	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	AQGSDEDKLQNSDDDEK	R	M	95.00%	2.84	0.339	0	3	0	0	2	2,053.73	168	184	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	ELFGDDSEDEGASHHSGSDNHSER	K	S	90.20%	2.33	0.219	0	0	0	1	2	2,694.00	60	83	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	IYSSDSDEGSEEDKAQR	R	L	95.00%	2.2	0.238	0	1	0	0	2	1,995.78	605	621	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	KLTSDEEGEPSGK	K	R	95.00%	2.69	0.202	0	1	0	0	2	1,456.62	627	639	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	KLTSDEEGEPSGKR	K	K	95.00%	2.52	0.417	0	1	1	0	2	1,692.69	627	640	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	KYVISDEEEEDDD	K	-	95.00%	2.62	0.447	0	1	0	0	2	1,665.61	654	666	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	MQNSDDERPQASDEEHR	K	H	95.00%	2.87	0.296	0	0	1	0	2	2,203.77	243	259	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	NAIASDSEADSDTEVPK	K	D	95.00%	2.52	0.473	0	2	0	0	2	1,988.68	290	306	TRUE	
SNU216_PC2_02	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	10	13	0.08%	20.40%	SDQSDDEKIQNSDDEER	K	A	95.00%	2.78	0.349	0	1	0	0	2	2,169.75	151	167	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	DAELQDQEFGKRDSLGTYSSR	R	D	95.00%	3.41	0.271	0	0	1	0	2	2,482.09	859	879	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	2.79	0.268	0	1	1	0	2	2,090.97	1023	1043	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	NRSAEEGELAESK	R	S	95.00%	3.17	0.338	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	4.43	0.328	0	0	1	0	2	2,302.99	891	911	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	7.21	0.41	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	6.98	0.604	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	3.78	0.271	0	0	1	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	SQEADVQDWEFR	R	K	95.00%	2.88	0.42	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	VPSSDEEVVEEPQSR	R	R	95.00%	3.45	0.402	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC2_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	10	11	11	0.07%	10.10%	YESQEPLAGQESPLPLATR	R	E	84.20%	2.88	0.187	0	0	1	0	2	2,166.01	590	608	TRUE	
SNU216_PC2_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	3	5	5	0.03%	4.07%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	4.97	0.451	0	1	1	0	2	2,298.08	9	31	TRUE	
SNU216_PC2_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	3	5	5	0.03%	4.07%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.7	0.546	0	1	1	0	2	2,541.20	7	31	TRUE	
SNU216_PC2_02	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	3	5	5	0.03%	4.07%	FGGSGSQVDSAR	R	M	95.00%	2.48	0.345	0	1	0	0	2	1,247.51	358	369	TRUE	
SNU216_PC2_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.82%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	3.87	0.666	0	1	1	0	2	2,580.79	423	442	TRUE	
SNU216_PC2_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.82%	GSDSPAADVEIEYVTEEPEIYEPNFIFFK	R	R	95.00%	4.08	0.335	0	0	1	0	2	3,415.52	359	387	TRUE	
SNU216_PC2_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.82%	SRGSDSPAADVEIEYVTEEPEIYEPNFIFFK	R	R	80.60%	5.77	0.011	0	0	1	0	2	3,658.65	357	387	TRUE	
SNU216_PC2_02	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.82%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.6	0.084	0	2	0	0	2	2,020.86	302	320	TRUE	
SNU216_PC2_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	6.42%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.63	0.358	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC2_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	6.42%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	4.75	0.547	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC2_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	3.49%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	4.64	0.292	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216_PC2_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	3.49%	GTNVMVTHYFLPPDDAVPSDDDLGTVPDY	K	K	95.00%	5.33	0.395	0	0	1	0	2	3,713.67	1751	1783	TRUE	
SNU216_PC2_02	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	100.00%	3	3	3	0.02%	3.49%	RPMSSPEMK	K	S	94.20%	2.29	0.204	0	1	0	0	2	1,142.47	1947	1955	TRUE	
SNU216_PC2_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.80%	1	1	1	0.01%	0.05%	GYIVEMQEEGTTDWKR	K	V	95.00%	3.24	0.173	0	0	1	0	2	2,021.87	16573	16588	TRUE	
SNU216_PC2_02	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	100.00%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	5.94	0.0414	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216_PC2_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.03%	3.59%	LSPPYSSPQEFAQDVGR	K	M	95.00%	1.98	0.297	0	1	0	0	2	1,957.87	751	767	TRUE	
SNU216_PC2_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.03%	3.59%	SGEGEVSGLMR	R	K	95.00%	2.4	0.41	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216_PC2_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.03%	3.59%	SRSGEGEVSGLMR	R	K	95.00%	2.74	0.295	0	1	1	0	2	1,444.63	471	483	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	3.37	0.175	0	0	1	0	2	2,434.09	531	554	TRUE	
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	EVLYDSEGLSGEER	R	G	95.00%	2.37	0.354	0	1	0	0	2	1,742.66	729	742	TRUE	
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	5.06	0.391	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	GPSPAPASSPKR	R	E	95.00%	2.57	0.209	0	1	0	0	2	1,311.55	717	728	TRUE	
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.47	0.493	0	1	2	0	2	2,048.01	496	516	TRUE	
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	RRSASPPPATSSSSSSR	R	R	95.00%	3.64	0.313	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	SASPPPATSSSSSSR	R	R	95.00%	2.59	0.444	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216_PC2_02	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	8	9	10	0.06%	8.46%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	2.43	0.226	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216_PC2_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	3	3	0.02%	6.52%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	4	0.357	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216_PC2_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	3	3	0.02%	6.52%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	6.1	0.623	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216_PC2_02	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	100.00%	3	3	3	0.02%	6.52%	VKLDDDSDDDEESK	R	E	95.00%	3.88	0.595	0	1	0	0	2	1,689.64	598	611	TRUE	
SNU216_PC2_02	far upstream element-binding protein	IPI00375441	67,560.60	99.50%	1	1	1	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	3.09	0.312	0	0	1	0	2	2,661.16	621	644	TRUE	
SNU216_PC2_02	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	3	3	3	0.02%	4.45%	GDTPGHATPGHGGATSSAR	R	K	94.80%	2.38	0.272	0	0	1	0	2	1,813.76	271	289	TRUE	
SNU216_PC2_02	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	3	3	3	0.02%	4.45%	SRWDETPASQMGGSTPVLTPGK	K	T	95.00%	4.72	0.439	0	0	1	0	2	2,382.08	336	357	TRUE	
SNU216_PC2_02	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	3	3	3	0.02%	4.45%	TMIISPERLDPFADGGK	R	T	95.00%	2.21	0.283	0	1	0	0	2	1,926.90	125	141	TRUE	
SNU216_PC2_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	4	4	0.03%	1.36%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	3.08	0.354	0	1	1	0	2	2,461.21	1678	1699	TRUE	
SNU216_PC2_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	4	4	0.03%	1.36%	ESDQTLAALLSPK	K	E	95.00%	2.53	0.248	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216_PC2_02	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	3	4	4	0.03%	1.36%	SVESTSPEPSK	K	I	95.00%	1.98	0.356	0	1	0	0	2	1,227.51	278	288	TRUE	
SNU216_PC2_02	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	99.80%	1	1	1	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	4.51	0.455	0	0	1	0	2	2,565.01	131	153	TRUE	
SNU216_PC2_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	1	1	1	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	3.67	0.476	0	0	1	0	2	2,205.10	225	244	TRUE	
SNU216_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.56	0.222	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.6	0.34	0	3	1	0	2	2,188.85	552	570	TRUE	
SNU216_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.68	0.441	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216_PC2_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	8	0.05%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.04	0.339	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	4	0.03%	1.45%	KHSPSPPPPTPTESR	K	K	95.00%	4.03	0.49	0	2	1	0	2	1,774.76	326	340	TRUE	
SNU216_PC2_02	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	4	0.03%	1.45%	RKHSPSPPPPTPTESR	K	K	95.00%	3.93	0.415	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	19	0.12%	5.94%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	5.38	0.584	0	2	2	0	2	2,882.10	701	724	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	19	0.12%	5.94%	KRSEDESETEDEEEK	K	S	95.00%	3.69	0.434	0	2	1	0	2	1,919.74	666	680	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	19	0.12%	5.94%	RSEDESETEDEEEK	K	S	95.00%	4	0.441	0	1	0	0	2	1,791.64	667	680	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	19	0.12%	5.94%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	5.84	0.499	0	0	2	0	2	2,764.06	667	688	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	19	0.12%	5.94%	SEDESETEDEEEK	R	S	95.00%	2.36	0.407	0	2	0	0	2	1,715.51	668	680	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	19	0.12%	5.94%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.67	0.582	0	2	2	0	2	2,607.96	668	688	TRUE	
SNU216_PC2_02	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	19	0.12%	5.94%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	6.4	0.578	0	2	1	0	2	2,764.06	668	689	TRUE	
SNU216_PC2_02	Isoform 1 of Protein C17orf28	IPI00246827,IPI00247634,IP	64,510.50	100.00%	3	3	3	0.02%	6.19%	SLEPEPQQSLEDGSPAK	R	G	95.00%	3.13	0.324	0	1	0	0	2	1,891.83	424	440	TRUE	
SNU216_PC2_02	Isoform 1 of Protein C17orf28	IPI00246827,IPI00247634,IP	64,510.50	100.00%	3	3	3	0.02%	6.19%	SLEPEPQQSLEDGSPAKGEPSQAWR	R	E	95.00%	4.42	0.366	0	0	1	0	2	2,803.26	424	448	TRUE	
SNU216_PC2_02	Isoform 1 of Protein C17orf28	IPI00246827,IPI00247634,IP	64,510.50	100.00%	3	3	3	0.02%	6.19%	TGSQEGTSMEGSRPAAPAEPGTLK	R	T	87.30%	2.92	0.165	0	0	1	0	2	2,439.09	375	398	TRUE	
SNU216_PC2_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	99.80%	2	2	2	0.01%	1.21%	TSPINEDIR	K	S	95.00%	1.67	0.375	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216_PC2_02	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	99.80%	2	2	2	0.01%	1.21%	VASDTEEADR	K	T	95.00%	2.46	0.48	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216_PC2_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	100.00%	3	3	3	0.02%	5.24%	VTPQEEADSDVGEEPDSENTPQK	K	A	95.00%	4.18	0.433	0	1	0	0	2	2,581.05	120	142	TRUE	
SNU216_PC2_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	100.00%	3	3	3	0.02%	5.24%	VTPQEEADSDVGEEPDSENTPQKADK	K	D	95.00%	4.53	0.301	0	0	1	0	2	2,895.21	120	145	TRUE	
SNU216_PC2_02	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	100.00%	3	3	3	0.02%	5.24%	VTPQEEADSDVGEEPDSENTPQKADKDAG	K	L	95.00%	6.42	0.539	0	0	0	1	2	4,084.79	120	157	TRUE	
SNU216_PC2_02	Isoform Beta of Striatin-3	IPI00011461	87,661.80	99.80%	1	1	1	0.01%	1.62%	NLEQILNGGESPK	K	Q	95.00%	3.24	0.385	0	1	0	0	2	1,478.69	219	231	TRUE	
SNU216_PC2_02	SREBP cleavage-activating protein	IPI00006280	139,731.10	98.60%	1	1	1	0.01%	1.33%	RDSGVGSGLEAQESWER	R	L	95.00%	4.13	0.467	0	1	0	0	2	1,942.83	820	836	TRUE	
SNU216_PC2_02	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	AQNEFKDEAQSLSHSPK	R	R	95.00%	3.87	0.336	0	0	1	0	2	1,995.88	507	523	TRUE	
SNU216_PC2_02	PDZ domain-containing protein 8	IPI00168698	128,567.00	99.80%	2	2	2	0.01%	3.21%	RVPTTLSIKPLGAISPVLNR	K	K	95.00%	3.56	0.349	0	0	1	0	2	2,212.26	524	543	TRUE	
SNU216_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.43	0.428	0	0	1	0	2	2,816.12	796	819	TRUE	
SNU216_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	5.47	0.509	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.49	0.0729	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216_PC2_02	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	4	4	4	0.03%	4.60%	SPPEGDTTLFLSR	R	L	95.00%	2.65	0.398	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216_PC2_02	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	2.97	0.382	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216_PC3_02	Poly(rC)-binding protein 1	IPI00016610	37,498.20	99.80%	1	1	1	0.01%	7.02%	QQSHFAMMHGGTGFAGIDSSSPEVK	R	G	95.00%	3.26	0.243	0	0	1	0	2	2,686.14	244	268	TRUE	
SNU216_PC3_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.20%	2	2	2	0.01%	2.76%	ATSPVKSTTSITDAK	K	S	84.30%	3.48	0.0178	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC3_02	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.20%	2	2	2	0.01%	2.76%	TPISPLKTGVSKPIVK	K	S	95.00%	3.41	0.257	0	0	1	0	2	1,745.00	320	335	TRUE	
SNU216_PC3_02	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	2	3	4	0.03%	3.81%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	3.9	0.169	0	1	2	0	2	2,929.08	432	455	TRUE	
SNU216_PC3_02	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	2	3	4	0.03%	3.81%	GLKEGMNPSYDEYADSDEDQHDAYLER	R	M	95.00%	4.63	0.416	0	0	1	0	2	3,227.28	429	455	TRUE	
SNU216_PC3_02	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	3	3	4	0.03%	15.30%	GGGGDMAEPSEAGDAPPDDGPPGELGPD	R	G	95.00%	3.88	0.475	0	0	2	0	2	3,453.36	311	346	TRUE	
SNU216_PC3_02	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	3	3	4	0.03%	15.30%	GGGGGQDNGLEGLGNDSR	R	D	95.00%	3.97	0.327	0	1	0	0	2	1,739.70	394	411	TRUE	
SNU216_PC3_02	Isoform 1 of U1 small nuclear ribonucleoprotein 7	IPI00290204	51,558.40	100.00%	3	3	4	0.03%	15.30%	YDERPGPSPLPHR	R	D	87.00%	2.38	0.204	0	1	0	0	2	1,600.73	219	231	TRUE	
SNU216_PC3_02	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	2	2	0.01%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYK	R	E	95.00%	2.64	0.277	0	0	1	0	2	2,823.04	430	453	TRUE	
SNU216_PC3_02	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	2	2	0.01%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYKEAK	R	A	95.00%	6.45	0.115	0	0	1	0	2	3,071.25	430	456	TRUE	
SNU216_PC3_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	5	0.03%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.69	0.324	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216_PC3_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	5	0.03%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.15	0.437	0	2	0	0	2	1,847.75	38	56	TRUE	
SNU216_PC3_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	4	5	0.03%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.07	0.437	0	1	1	0	2	2,132.89	38	58	TRUE	
SNU216_PC3_02	CDNA FLJ32841 fis, clone TESTI2003325	IPI00065276,IPI00332071	60,183.50	99.90%	1	1	1	0.01%	1.85%	SLSSPGGPSKPK	K	K	80.10%	1.77	0.236	0	1	0	0	2	1,221.59	272	283	TRUE	
SNU216_PC3_02	PREDICTED: hypothetical protein LOC146439	IPI00095032	56,835.20	99.80%	1	1	1	0.01%	4.72%	RDSFLGGGPGPEEPEDLALQLQQK	R	E	95.00%	3.78	0.194	0	0	1	0	2	2,661.26	34	57	TRUE	
SNU216_PC3_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	ARVDHGAEIITQSPGR	K	S	95.00%	3.13	0.19	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216_PC3_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	4.61	0.0891	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC3_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.24%	VDHGAEIITQSPGR	R	S	95.00%	3.55	0.464	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC3_02	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.00%	1	1	1	0.01%	2.05%	RTSMGGTQQQFVEGVR	R	M	80.30%	2.97	0.149	0	0	1	0	2	1,860.84	550	565	TRUE	
SNU216_PC3_02	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	1	1	1	0.01%	3.16%	SGSMDPSGAHPSVR	R	Q	95.00%	1.96	0.307	0	1	0	0	2	1,480.59	18	31	TRUE	
SNU216_PC3_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SGEGEVSGLMR	R	K	95.00%	2.01	0.27	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216_PC3_02	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	2	2	2	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.33	0.32	0	0	1	0	2	1,444.63	471	483	TRUE	
SNU216_PC3_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	3	4	4	0.03%	5.33%	KRSSSEDAESLAPR	R	S	95.00%	3.5	0.315	0	1	1	0	2	1,612.73	296	309	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	3	4	4	0.03%	5.33%	SRPTSEGSDIESTEPQK	R	Q	95.00%	3.62	0.17	0	1	0	0	2	1,927.83	254	270	TRUE	
SNU216_PC3_02	HDCMA18P protein	IPI00294742	66,900.60	100.00%	3	4	4	0.03%	5.33%	SSSEDAESLAPR	R	S	95.00%	2.92	0.465	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216_PC3_02	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	2	0.01%	4.19%	AGGPATPLSPTR	R	L	95.00%	2.63	0.358	0	1	0	0	2	1,204.57	29	40	TRUE	
SNU216_PC3_02	Lamin-B2	IPI00009771	69,949.40	100.00%	2	2	2	0.01%	4.19%	ATSSSSGSLSATGR	R	L	95.00%	2.16	0.255	0	1	0	0	2	1,348.57	417	430	TRUE	
SNU216_PC3_02	Something about silencing protein 10	IPI00006900	54,559.20	100.00%	1	1	1	0.01%	7.52%	AGPTLTDENGDDLGLPPSPGDTSYYQDQVI	K	S	95.00%	5.93	0.0984	0	0	1	0	2	3,972.67	20	55	TRUE	
SNU216_PC3_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	7	0.04%	3.54%	SPSPEPIYNSEGKR	R	L	95.00%	1.89	0.309	0	1	0	0	2	1,720.70	204	217	TRUE	
SNU216_PC3_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	7	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.49	0.321	0	0	1	0	2	2,926.25	191	216	TRUE	
SNU216_PC3_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	7	0.04%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.61	0.271	0	0	4	1	2	3,082.36	191	217	TRUE	
SNU216_PC3_02	far upstream element-binding protein	IPI00375441	67,560.60	100.00%	1	1	1	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	3.9	0.493	0	1	0	0	2	2,661.16	621	644	TRUE	
SNU216_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	8	8	0.05%	19.50%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	4.85	0.444	0	1	1	0	2	2,017.81	298	317	TRUE	
SNU216_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	8	8	0.05%	19.50%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.09	0.0408	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	8	8	0.05%	19.50%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	8.36	0.582	0	0	1	1	2	4,229.03	209	247	TRUE	
SNU216_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	8	8	0.05%	19.50%	ISASSATR	R	E	95.00%	1.63	0.363	0	1	0	0	2	872.3873	257	264	TRUE	
SNU216_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	8	8	0.05%	19.50%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.74	0.382	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC3_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	6	8	8	0.05%	19.50%	TGSSSPPGGPPKPGSQLDSMLGSLQSDLNK	K	L	95.00%	3.05	0.225	0	0	1	0	2	3,035.40	318	347	TRUE	
SNU216_PC3_02	Isoform 1 of Protein C20orf112	IPI00289086,IPI00607558	43,078.10	99.80%	1	1	1	0.01%	3.90%	TTPESPPYSSGSYDSIK	K	T	95.00%	2.19	0.28	0	1	0	0	2	1,895.79	126	142	TRUE	
SNU216_PC3_02	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.80%	1	1	1	0.01%	2.70%	VGDGDLSAEEIPENEVSLRR	K	A	95.00%	3.12	0.22	0	0	1	0	2	2,265.04	239	258	TRUE	
SNU216_PC3_02	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	1	2	2	0.01%	2.96%	VNLEESSGVENSPAGARPK	R	R	95.00%	4.51	0.458	0	1	1	0	2	2,020.93	291	309	TRUE	
SNU216_PC3_02	palladin	IPI00292009	122,047.90	100.00%	3	3	3	0.02%	2.71%	GRSPRSPSGHPHVR	R	R	95.00%	2.64	0.448	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216_PC3_02	palladin	IPI00292009	122,047.90	100.00%	3	3	3	0.02%	2.71%	SRDSGDENEPIQER	R	F	95.00%	3.08	0.287	0	1	0	0	2	1,711.69	894	907	TRUE	
SNU216_PC3_02	palladin	IPI00292009	122,047.90	100.00%	3	3	3	0.02%	2.71%	SRSRDSGDENEPIQER	R	F	91.40%	2.19	0.251	0	1	0	0	2	2,114.76	892	907	TRUE	
SNU216_PC3_02	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	98.70%	1	1	1	0.01%	4.53%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	4.85	0.444	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	4	5	5	0.03%	12.80%	EESDGEYDEFGR	R	K	95.00%	2.7	0.537	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	4	5	5	0.03%	12.80%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	2.68	0.455	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	4	5	5	0.03%	12.80%	ENVEYIEREESDGEYDEFGRK	R	K	82.80%	3.19	0.168	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216_PC3_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	4	5	5	0.03%	12.80%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.42	0.524	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	DFQEYVEPGEDFPASPQR	R	R	95.00%	3.94	0.444	0	1	1	0	2	2,190.90	193	210	TRUE	
SNU216_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	DFQEYVEPGEDFPASPQRR	R	N	95.00%	2.95	0.205	0	1	0	0	2	2,347.00	193	211	TRUE	
SNU216_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	KPVTVSPTTPTSPTEGEAS	R	-	95.00%	2.91	0.21	0	2	0	0	2	1,965.91	505	523	TRUE	
SNU216_PC3_02	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	4	5	6	0.04%	10.70%	SVSSNVASVSPIPAGSKK	R	I	93.60%	2.25	0.203	0	1	0	0	2	1,794.90	412	429	TRUE	
SNU216_PC3_02	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.60%	2	2	2	0.01%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.55	0.219	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216_PC3_02	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	99.60%	2	2	2	0.01%	10.10%	RSPSPYYSR	R	D	91.80%	2.17	0.159	0	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216_PC3_02	Insulin receptor tyrosine kinase substrate	IPI00179326	56,883.90	100.00%	2	2	3	0.02%	5.48%	IMNMIEEIKTPASTPVSGTPQASPMIER	K	S	95.00%	4.57	0.24	0	0	1	0	2	3,108.48	239	266	TRUE	
SNU216_PC3_02	Insulin receptor tyrosine kinase substrate	IPI00179326	56,883.90	100.00%	2	2	3	0.02%	5.48%	TPASTPVSGTPQASPMIER	K	S	95.00%	3.71	0.499	0	2	0	0	2	2,006.93	248	266	TRUE	
SNU216_PC3_02	mRNA decapping enzyme 1A	IPI00164672	63,437.30	99.80%	2	3	3	0.02%	7.36%	KASSPSPLTIGTPESQR	R	K	95.00%	4.1	0.173	0	1	0	0	2	1,835.89	522	538	TRUE	
SNU216_PC3_02	mRNA decapping enzyme 1A	IPI00164672	63,437.30	99.80%	2	3	3	0.02%	7.36%	QRSPLLNQPVPELSHASLIANQSPFR	R	A	95.00%	5.72	0.59	0	0	1	1	2	2,979.52	351	376	TRUE	
SNU216_PC3_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	3.17	0.378	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216_PC3_02	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.92	0.348	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	AALAPAKESPR	R	K	95.00%	1.97	0.25	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	KLGAGEGGEASVSPEK	K	T	95.00%	2.82	0.224	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.49	0.14	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	LGAGEGGEASVSPEK	K	T	95.00%	3.13	0.413	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.32	0.0866	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	RKLSGDQPAAR	K	T	93.70%	2.54	0.201	0	0	1	0	2	1,278.63	1270	1280	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.69	0.414	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	TSQVGAASAPAKESPR	K	K	95.00%	3.12	0.469	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	TSQVGAASAPAKESPRK	K	G	95.00%	3.66	0.431	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216_PC3_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	10	13	13	0.08%	6.66%	TVANLLSGKSPR	K	K	95.00%	3.05	0.298	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216_PC3_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.90%	2	3	3	0.02%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	2.77	0.231	0	1	1	0	2	1,857.81	312	327	TRUE	
SNU216_PC3_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.90%	2	3	3	0.02%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.11	0.499	0	1	0	0	2	2,099.87	328	345	TRUE	
SNU216_PC3_02	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	99.80%	1	1	1	0.01%	2.75%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	3.73	0.194	0	0	1	0	2	2,616.22	446	467	TRUE	
SNU216_PC3_02	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	99.80%	2	3	3	0.02%	3.24%	EGRGESENAGTNQETR	R	S	95.00%	2.91	0.28	0	1	1	0	2	1,814.73	426	441	TRUE	
SNU216_PC3_02	Splicing factor, arginine/serine-rich 4	IPI00000015	56,680.00	99.80%	2	3	3	0.02%	3.24%	GESENAGTNQETR	R	S	95.00%	2.74	0.435	0	1	0	0	2	1,472.57	429	441	TRUE	
SNU216_PC3_02	PDZ and LIM domain protein 5	IPI00007935	63,839.90	99.80%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	2.67	0.308	0	0	1	0	2	1,630.88	101	115	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.35	0.516	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	4.15	0.406	0	1	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	GGVTGSPEASISGSK	K	G	95.00%	2.46	0.211	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	GGVTGSPEASISGSKGDLK	K	S	95.00%	2.47	0.314	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	3.62	0.343	0	0	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	GKGGVTGSPEASISGSK	K	G	95.00%	3.09	0.112	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	ISAPNVDFNLEGPK	R	V	95.00%	2.62	0.4	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	ISMQDVDLSLGSPK	K	L	95.00%	2.62	0.214	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC3_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.58%	VKTPEMIIQKPK	K	I	95.00%	2.87	0.342	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	9.62%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.02	0.409	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	9.62%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	3.99	0.419	0	1	1	1	2	2,653.22	98	121	TRUE	
SNU216_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	9.62%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	2.91	0.233	0	0	1	0	2	2,427.05	378	397	TRUE	
SNU216_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	9.62%	SLSPGKENVSALDMEK	K	E	95.00%	3.37	0.444	0	1	1	0	2	1,784.81	441	456	TRUE	
SNU216_PC3_02	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	5	8	8	0.05%	9.62%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	4.05	0.423	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	8	8	0.05%	28.20%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	93.10%	7.42	0.0014	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	8	8	0.05%	28.20%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.24	0.547	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	8	8	0.05%	28.20%	ISQSAPVKQPPPLAPQSPQGGVMGGSNSN	R	L	95.00%	5.73	0.484	0	0	1	0	2	3,709.76	235	269	TRUE	
SNU216_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	8	8	0.05%	28.20%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.85	0.454	0	1	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC3_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	5	8	8	0.05%	28.20%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.05	0.217	0	1	0	0	2	2,297.02	162	181	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	99.90%	2	2	2	0.01%	4.78%	EREPEAASSRGSPVR	R	V	95.00%	2.98	0.294	0	0	1	0	2	1,707.78	35	49	TRUE	
SNU216_PC3_02	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	99.90%	2	2	2	0.01%	4.78%	EREVDEDSEPER	R	E	95.00%	2.1	0.329	0	1	0	0	2	1,569.61	75	86	TRUE	
SNU216_PC3_02	Tumor-associated calcium signal transducer 2 pre	IPI00297910	35,709.80	100.00%	1	1	1	0.01%	3.41%	ELGELRKEPSL	K	-	95.00%	2.32	0.218	0	1	0	0	2	1,350.67	313	323	TRUE	
SNU216_PC3_02	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	4	0.03%	12.20%	ATSRGSNSGMDSNIDLTIVEDEEEESVALEQ	K	V	89.20%	6.69	0.0102	0	0	1	0	2	3,732.64	359	392	TRUE	
SNU216_PC3_02	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	4	0.03%	12.20%	ISSGKSSPFKVSPLTFGR	K	K	95.00%	3.19	0.188	0	1	1	0	2	2,054.97	282	299	TRUE	
SNU216_PC3_02	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	4	0.03%	12.20%	SSPFKVSPLTFGR	K	K	84.90%	2.34	0.177	0	0	1	0	2	1,582.71	287	299	TRUE	
SNU216_PC3_02	Negative elongation factor B	IPI00103483	65,699.50	99.80%	1	2	2	0.01%	4.48%	KPSPAQAAETPALELPLPSVPAPAPL	R	-	95.00%	5.13	0.559	0	1	1	0	2	2,642.38	555	580	TRUE	
SNU216_PC3_02	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	2	2	0.01%	3.70%	KARVGGSDEEASGIPSR	K	T	95.00%	2.99	0.285	0	1	0	0	2	1,795.83	353	369	TRUE	
SNU216_PC3_02	Isoform 2 of Suppressor of SWI4 1 homolog	IPI00219793,IPI00329590,IP	51,901.10	99.80%	2	2	2	0.01%	3.70%	VGGSDEEASGIPSR	R	T	95.00%	2.83	0.467	0	1	0	0	2	1,440.60	356	369	TRUE	
SNU216_PC3_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.90%	3	4	4	0.03%	8.18%	SASEPSLHR	R	A	95.00%	1.81	0.404	0	1	0	0	2	1,063.46	619	627	TRUE	
SNU216_PC3_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.90%	3	4	4	0.03%	8.18%	SRWSGSQQVEQPTGSVLWMAPEVIR	K	M	79.90%	4.26	0.0809	0	0	1	0	2	2,908.38	494	518	TRUE	
SNU216_PC3_02	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.90%	3	4	4	0.03%	8.18%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.93	0.544	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216_PC3_02	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	2	3	3	0.02%	7.85%	QASEQENEDSMAEAPESNHPEDQETMETI	K	G	95.00%	6.65	0.581	0	0	1	1	2	4,177.64	296	331	TRUE	
SNU216_PC3_02	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	2	3	3	0.02%	7.85%	QASEQENEDSMAEAPESNHPEDQETMETI	K	E	95.00%	6.23	0.617	0	0	0	1	2	4,459.81	296	334	TRUE	
SNU216_PC3_02	WW domain-containing adapter with a coiled-coi	IPI00010241,IPI00087375,IP	59,504.50	98.70%	1	1	1	0.01%	4.16%	QGPVSQSATQQPVTADKQQGHEPVSPR	K	S	95.00%	4.3	0.421	0	0	1	0	2	2,937.39	384	410	TRUE	
SNU216_PC3_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.80%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	6.19	0.463	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216_PC3_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.80%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	3.68	0.345	0	0	1	0	2	2,320.00	211	230	TRUE	
SNU216_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.40%	AVPAPSPGPTHNSPELGRPPAAGVLAPDM	R	C	95.00%	3.8	0.205	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.40%	HGSDPAFAPGPR	R	G	95.00%	2.62	0.449	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.40%	RGSLTLTISGESPK	R	A	95.00%	3.62	0.367	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.40%	RGSPVPPVPER	R	R	86.40%	1.96	0.193	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.40%	RLSLGQGDSTEAATEER	R	G	95.00%	3.62	0.479	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC3_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	6	7	7	0.04%	8.40%	RSSPVPPVPERR	R	G	95.00%	2.81	0.282	0	0	1	0	2	1,456.74	923	934	TRUE	
SNU216_PC3_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	5	6	0.04%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.59	0.311	0	1	1	1	2	2,020.82	45	61	TRUE	
SNU216_PC3_02	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	5	6	0.04%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	3.88	0.231	0	0	2	1	2	2,176.93	44	61	TRUE	
SNU216_PC3_02	Isoform 1 of Tripartite motif protein 16	IPI00007955,IPI00556381	109,569.00	99.80%	1	1	1	0.01%	3.55%	ETEEQDSDSAEQGDPAGEGK	R	E	95.00%	4.08	0.499	0	1	0	0	2	2,158.79	68	87	TRUE	
SNU216_PC3_02	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	1	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEIEF	K	A	95.00%	5.89	0.739	0	0	1	0	2	4,199.41	119	153	TRUE	
SNU216_PC3_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.08	0.435	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC3_02	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	SSSVGSSSSYPISPAVSR	R	T	80.20%	3.34	0.038	0	1	0	0	2	1,914.79	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC3_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	3	4	5	0.03%	11.80%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.9	0.485	0	2	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC3_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	3	4	5	0.03%	11.80%	SSSPAPADIAQTVQEDLRTFSWASVTSK	K	N	95.00%	4.59	0.49	0	0	1	0	2	3,059.44	230	257	TRUE	
SNU216_PC3_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	3	4	5	0.03%	11.80%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.45	0.428	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC3_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	2	2	0.01%	3.86%	SKPIPIMPASPQK	K	G	95.00%	2.94	0.306	0	0	1	0	2	1,473.75	596	608	TRUE	
SNU216_PC3_02	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	100.00%	2	2	2	0.01%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	5.52	0.612	0	0	1	0	2	3,011.63	596	623	TRUE	
SNU216_PC3_02	Protein C14orf4	IPI00019205	82,658.10	98.80%	1	1	1	0.01%	1.51%	RPGSVSSTDQER	K	E	95.00%	1.95	0.302	0	0	1	0	2	1,398.60	331	342	TRUE	
SNU216_PC3_02	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	4	4	0.03%	2.62%	GFENVIHDKLPLQESEEER	K	E	95.00%	4.16	0.267	0	0	1	0	2	2,478.12	143	162	TRUE	
SNU216_PC3_02	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	4	4	0.03%	2.62%	GFENVIHDKLPLQESEEEREER	K	S	95.00%	3.85	0.409	0	0	1	1	2	2,892.31	143	165	TRUE	
SNU216_PC3_02	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	4	4	0.03%	2.62%	LPLQESEEEEREER	K	S	91.30%	2.47	0.171	0	0	1	0	2	1,852.80	152	165	TRUE	
SNU216_PC3_02	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	100.00%	1	1	1	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	3.02	0.301	0	1	0	0	2	1,842.71	375	389	TRUE	
SNU216_PC3_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	3	3	3	0.02%	3.90%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.13	0.561	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216_PC3_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	3	3	3	0.02%	3.90%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.89	0.549	0	1	0	0	2	2,561.95	224	246	TRUE	
SNU216_PC3_02	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	3	3	3	0.02%	3.90%	KAEQGSEEEGEGEEEEEEGGESKADDPYAH	K	K	95.00%	3.64	0.329	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216_PC3_02	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	48,851.60	99.70%	2	3	3	0.02%	6.52%	RNSTDSRPVSVTYR	K	F	93.80%	2.33	0.204	0	0	1	0	2	1,717.80	231	244	TRUE	
SNU216_PC3_02	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	48,851.60	99.70%	2	3	3	0.02%	6.52%	SNSLPHSAVSNAGSK	R	S	95.00%	2.31	0.427	0	1	1	0	2	1,535.68	308	322	TRUE	
SNU216_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	6	0.04%	6.67%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	95.00%	4.51	0.332	0	0	2	1	2	2,865.29	88	118	TRUE	
SNU216_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	6	0.04%	6.67%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	2.91	0.284	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	6	0.04%	6.67%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.35	0.465	0	0	1	0	2	3,176.48	936	963	TRUE	
SNU216_PC3_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	6	0.04%	6.67%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	2.99	0.344	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216_PC3_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	GYADSPSKAGAAPYVQAFDSLLAGPVAEYL	R	I	95.00%	5.21	0.449	0	0	1	0	2	3,236.56	29	59	TRUE	
SNU216_PC3_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	PFSAPKPQTSPSPK	K	R	95.00%	3.34	0.346	0	1	0	0	2	1,548.75	298	311	TRUE	
SNU216_PC3_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	PFSAPKPQTSPSPKR	K	A	88.70%	2.29	0.249	0	0	1	0	2	1,704.85	298	312	TRUE	
SNU216_PC3_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	4	5	9	0.06%	10.50%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.11	0.463	0	3	3	0	2	1,917.95	294	311	TRUE	
SNU216_PC3_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	4	6	0.04%	11.30%	GHTDTEGRPPSPPPTSTPEK	R	C	95.00%	4.48	0.0827	0	1	0	0	2	2,167.97	353	372	TRUE	
SNU216_PC3_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	4	6	0.04%	11.30%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	95.00%	2.8	0.358	0	1	0	0	2	2,903.48	310	336	TRUE	
SNU216_PC3_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	3	4	6	0.04%	11.30%	VKEEPPSPPQSPR	R	V	95.00%	3.06	0.381	0	3	1	0	2	1,607.69	297	309	TRUE	
SNU216_PC3_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	99.80%	1	1	1	0.01%	6.59%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	3.79	0.264	0	0	1	0	2	2,990.20	334	361	TRUE	
SNU216_PC3_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	99.80%	2	2	2	0.01%	3.67%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.11	0.357	0	0	1	0	2	2,279.98	667	686	TRUE	
SNU216_PC3_02	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	99.80%	2	2	2	0.01%	3.67%	KLQLERPVSPETQADLQR	R	N	95.00%	3.73	0.477	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC3_02	paternally expressed 10 isoform RF1/2	IPI00022095	80,173.00	100.00%	1	1	1	0.01%	0.99%	KPRSPPR	R	A	91.70%	1.85	0.226	0	1	0	0	2	917.4718	249	255	TRUE	IPI00455806
SNU216_PC3_02	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	3	0.02%	2.85%	GEEGSDDDETENGPKPK	K	K	95.00%	2.8	0.539	0	2	0	0	2	1,883.72	988	1004	TRUE	
SNU216_PC3_02	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	3	0.02%	2.85%	KGSGSEQEGEDEEGGER	R	K	95.00%	2.43	0.44	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216_PC3_02	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	2	0.01%	3.55%	SGSSSPDSEITELK	R	F	95.00%	2.22	0.274	0	1	0	0	2	1,516.64	571	584	TRUE	
SNU216_PC3_02	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	2	0.01%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	95.00%	3.64	0.0567	0	1	0	0	2	2,327.01	571	591	TRUE	
SNU216_PC3_02	REST corepressor 1	IPI00008531	53,028.00	100.00%	2	2	3	0.02%	10.20%	EREESEDELEEANGNNPIDIEVDQNK	R	E	95.00%	4.55	0.386	0	0	2	0	2	3,095.30	253	278	TRUE	
SNU216_PC3_02	REST corepressor 1	IPI00008531	53,028.00	100.00%	2	2	3	0.02%	10.20%	RSQERDNLGMLVWSPNQNLSEAK	R	L	95.00%	3.96	0.347	0	0	1	0	2	2,752.29	123	145	TRUE	
SNU216_PC3_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	4.35	0.458	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216_PC3_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.08	0.272	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC3_02	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	99.80%	2	2	2	0.01%	5.09%	EGSQGELTPANSQSR	R	M	95.00%	2.29	0.317	0	1	0	0	2	1,640.69	508	522	TRUE	
SNU216_PC3_02	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	99.80%	2	2	2	0.01%	5.09%	NQIHVKSPPREGSQGELTPANSQSR	R	M	95.00%	3.41	0.162	0	0	0	1	2	2,797.34	498	522	TRUE	
SNU216_PC3_02	B-Raf proto-oncogene serine/threonine-protein k	IPI00303797	84,438.90	99.80%	2	3	3	0.02%	5.35%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	3.86	0.486	0	1	1	0	2	2,253.98	444	462	TRUE	
SNU216_PC3_02	B-Raf proto-oncogene serine/threonine-protein k	IPI00303797	84,438.90	99.80%	2	3	3	0.02%	5.35%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	4.08	0.356	0	0	1	0	2	2,484.21	363	384	TRUE	
SNU216_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	5	6	0.04%	8.86%	DYDDMSPR	R	R	95.00%	1.79	0.444	1	2	0	0	2	1,094.35	279	286	TRUE	
SNU216_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	5	6	0.04%	8.86%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.27	0.355	0	1	0	0	2	1,997.00	378	396	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	5	6	0.04%	8.86%	IILDLISESPIKGR	K	A	95.00%	2.77	0.326	0	1	1	0	2	1,633.89	208	221	TRUE	
SNU216_PC3_02	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	99.80%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	4.2	0.0396	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216_PC3_02	Tyrosine-protein phosphatase non-receptor type	IPI00297261	49,967.70	100.00%	1	1	1	0.01%	4.83%	GSPLNAAPYGIESMSQDTEVR	K	S	95.00%	4.21	0.525	0	1	0	0	2	2,302.01	351	371	TRUE	
SNU216_PC3_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.24	0.43	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC3_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.26	0.288	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC3_02	Isoform 1 of Ran-binding protein 3	IPI00026337,IPI00456728,IP	60,209.90	99.60%	1	1	1	0.01%	2.82%	VLSPPKLNEVSSDANR	R	E	95.00%	2.79	0.377	0	1	0	0	2	1,805.88	331	346	TRUE	
SNU216_PC3_02	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.42%	SSPNVANQPPSPGGK	R	S	95.00%	2.9	0.34	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216_PC3_02	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.42%	TSSVVTLEVAK	R	Q	95.00%	2.7	0.372	0	1	0	0	2	1,213.61	1080	1090	TRUE	
SNU216_PC3_02	phosphoglucomutase 1	IPI00219526	61,451.10	100.00%	1	1	1	0.01%	4.09%	AIGGIILTASHNPGGPNGDFGIK	K	F	95.00%	3.36	0.311	0	1	0	0	2	2,286.13	108	130	TRUE	
SNU216_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	6	6	0.04%	5.13%	ERPSSREDTPSR	K	L	95.00%	2.12	0.309	0	1	1	0	2	1,496.65	437	448	TRUE	
SNU216_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	6	6	0.04%	5.13%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.31	0.326	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	6	6	0.04%	5.13%	KVQVAALQASPPLDQDDR	R	A	95.00%	3.69	0.501	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216_PC3_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	6	6	0.04%	5.13%	SRSWEDSPER	R	G	95.00%	2.59	0.161	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	5	6	0.04%	8.27%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	5.1	0.381	0	0	2	0	2	2,373.03	234	253	TRUE	
SNU216_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	5	6	0.04%	8.27%	DNSPEPNDPEEPQEVSSTPSDKK	R	G	95.00%	4.32	0.433	0	0	1	0	2	2,606.08	254	276	TRUE	
SNU216_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	5	6	0.04%	8.27%	RVTQGAASPGHGIQEK	R	L	95.00%	3.27	0.417	0	1	1	0	2	1,715.82	373	388	TRUE	
SNU216_PC3_02	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	100.00%	4	5	6	0.04%	8.27%	VTQGAASPGHGIQEK	R	L	95.00%	3.08	0.357	0	1	0	0	2	1,559.72	374	388	TRUE	
SNU216_PC3_02	Phosphoglucomutase-2-like 1	IPI00173346	70,457.40	99.30%	1	1	1	0.01%	2.09%	AVAGVMITASHNR	K	K	86.20%	2.08	0.185	0	1	0	0	2	1,406.66	166	178	TRUE	
SNU216_PC3_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	4	0.03%	6.06%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.68	0.522	0	0	3	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC3_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	4	0.03%	6.06%	SSTPLPTISSSAENTR	R	Q	83.90%	2.76	0.0938	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216_PC3_02	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	99.80%	1	1	2	0.01%	4.27%	VAHEPVAPPEDKESESEAK	R	V	95.00%	4.78	0.468	0	0	2	0	2	2,128.94	8	26	TRUE	
SNU216_PC3_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	8	0.05%	5.05%	DHSPTPSVFNSDEER	R	Y	95.00%	3.05	0.452	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216_PC3_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	8	0.05%	5.05%	DHSPTPSVFNSDEERYR	R	Y	95.00%	3.59	0.131	0	1	0	0	2	2,195.84	490	506	TRUE	
SNU216_PC3_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	8	0.05%	5.05%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.4	0.279	0	2	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC3_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	6	8	0.05%	5.05%	RHESEEGDSHR	R	R	95.00%	2.05	0.245	0	0	1	0	2	1,418.54	551	561	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	KPSKEMSSDSEYDSDDDR	K	T	95.00%	2.56	0.299	0	1	0	0	2	2,170.81	582	599	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	KWDGSEEDEDNSKK	K	I	83.50%	2.21	0.22	0	0	1	0	2	1,746.69	160	173	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3.2	0.435	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.37	0.344	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	5	6	6	0.04%	5.57%	WDGSEEDEDNSK	K	K	95.00%	2.01	0.384	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216_PC3_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	94,258.30	99.80%	2	2	2	0.01%	4.86%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.34	0.428	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216_PC3_02	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	94,258.30	99.80%	2	2	2	0.01%	4.86%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	3.73	0.0687	0	1	0	0	2	2,009.92	238	257	TRUE	
SNU216_PC3_02	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	4.39%	AGGLDWPEATEVSPSR	R	T	95.00%	3.27	0.392	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC3_02	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	4.39%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.44	0.289	0	0	1	0	2	2,142.05	308	326	TRUE	
SNU216_PC3_02	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.90%	2	3	3	0.02%	10.50%	AVSETPAVPPVSEDEDDDDDDATPPPVIAPI	K	S	95.00%	5.5	0.429	0	0	1	1	2	3,888.73	163	198	TRUE	
SNU216_PC3_02	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.90%	2	3	3	0.02%	10.50%	DVATSPISPTENNTTPPDALTR	R	N	95.00%	4.71	0.0102	0	1	0	0	2	2,377.09	216	237	TRUE	
SNU216_PC3_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	5.73	0.213	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216_PC3_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	EEVVGGDDSDGLR	R	A	95.00%	2.4	0.274	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216_PC3_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	4.77	0.257	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216_PC3_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	99.80%	2	3	3	0.02%	2.61%	RDSLTGSSDLYKR	R	T	95.00%	3.99	0.413	0	1	1	0	2	1,577.73	708	720	TRUE	
SNU216_PC3_02	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	99.80%	2	3	3	0.02%	2.61%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.99	0.485	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216_PC3_02	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	8	0.05%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.81	0.346	0	3	3	0	2	1,673.69	221	235	TRUE	
SNU216_PC3_02	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	4	8	0.05%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.16	0.238	0	1	1	0	2	1,801.79	221	236	TRUE	
SNU216_PC3_02	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	95.00%	3.53	0.375	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216_PC3_02	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.42	0.531	0	1	1	0	2	2,394.07	428	451	TRUE	
SNU216_PC3_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	2	0.01%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	2.93	0.372	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216_PC3_02	HSPC121	IPI00008998	44,424.70	100.00%	2	2	2	0.01%	6.17%	WLDESDAEMELR	R	A	95.00%	2.82	0.49	0	1	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	13	0.08%	24.90%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.18	0.303	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	13	0.08%	24.90%	DELHIVEAEAMNYEGSPIKVTLATLK	R	M	95.00%	6.65	0.606	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	13	0.08%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.11	0.36	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC3_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	6	13	0.08%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	10.1	0.63	0	0	2	7	2	3,735.89	46	80	TRUE	
SNU216_PC3_02	Plastin-2	IPI00010471	70,160.90	100.00%	1	1	1	0.01%	1.92%	GSVSDEEMMELR	R	E	95.00%	2.45	0.413	0	1	0	0	2	1,462.56	3	14	TRUE	
SNU216_PC3_02	Protein AATF	IPI00302238	63,293.10	99.80%	1	2	2	0.01%	3.38%	AGDRNSEDDGVVMTFSSVK	R	V	95.00%	4.46	0.545	0	1	1	0	2	2,093.88	198	216	TRUE	
SNU216_PC3_02	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	38,420.30	100.00%	1	2	5	0.03%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.47	0.524	1	4	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC3_02	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	99.80%	1	1	1	0.01%	1.99%	QTPMASSPRPK	K	M	95.00%	2.11	0.229	0	1	0	0	2	1,279.59	150	160	TRUE	
SNU216_PC3_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	2	2	3	0.02%	3.61%	LTPVSPESSSTEEK	R	S	95.00%	2.21	0.244	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216_PC3_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	2	2	3	0.02%	3.61%	SRLTPVSPESSSTEEK	R	S	95.00%	3.31	0.118	0	2	0	0	2	1,813.82	266	281	TRUE	
SNU216_PC3_02	ring finger protein 12	IPI00386464	68,549.00	99.40%	2	2	2	0.01%	2.24%	SRSPLHPMSEIPR	R	R	88.50%	2.72	0.151	0	0	1	0	2	1,586.75	228	240	TRUE	
SNU216_PC3_02	ring finger protein 12	IPI00386464	68,549.00	99.40%	2	2	2	0.01%	2.24%	SRSPLHPMSEIPRR	R	S	95.00%	2.96	0.301	0	0	1	0	2	1,742.85	228	241	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	AEDGATPSPSNETPK	K	K	95.00%	3.34	0.444	0	4	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	AEDGATPSPSNETPKK	K	K	95.00%	3.53	0.434	0	3	1	0	2	1,708.74	137	152	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	AEDGATPSPSNETPKKK	K	K	95.00%	3.87	0.41	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	95.00%	5.96	0.0611	0	0	1	0	2	2,995.27	105	136	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.71	0.326	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	3.94	0.55	0	0	1	1	2	2,899.33	11	39	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.91	0.433	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	TAAKGEAAAERPGEAAVASSPSK	K	A	95.00%	2.97	0.225	0	0	1	0	2	2,236.06	7	29	TRUE	
SNU216_PC3_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	9	13	18	0.12%	34.70%	VNGDASPAAAESGAK	K	E	95.00%	3.01	0.47	0	1	0	0	2	1,424.61	40	54	TRUE	
SNU216_PC3_02	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	100.00%	2	2	2	0.01%	4.14%	ALSASHTDLAH	R	-	91.10%	2.25	0.162	0	1	0	0	2	1,202.52	570	580	TRUE	
SNU216_PC3_02	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	100.00%	2	2	2	0.01%	4.14%	RASSLNVLNVGGK	K	A	89.60%	2.82	0.0923	0	1	0	0	2	1,394.72	540	552	TRUE	
SNU216_PC3_02	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	99.80%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTR	R	E	95.00%	6.67	0.533	0	0	1	1	2	3,277.58	156	183	TRUE	
SNU216_PC3_02	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	99.80%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTREQLD	R	I	95.00%	5.17	0.453	0	0	0	1	2	4,062.95	156	190	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	5	5	0.03%	5.88%	LHKTEDGGWEWSDDEFDEESEEGK	R	A	95.00%	4.31	0.471	0	0	1	0	2	2,934.13	328	351	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	5	5	0.03%	5.88%	LHKTEDGGWEWSDDEFDEESEEGKAAISQL	R	S	95.00%	4.69	0.555	0	0	1	1	2	3,673.56	328	358	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	5	5	0.03%	5.88%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.1	0.632	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	5	5	0.03%	5.88%	TEDGGWEWSDDEFDEESEEGKAAISQLR	K	S	95.00%	5.44	0.499	0	0	1	0	2	3,295.32	331	358	TRUE	
SNU216_PC3_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	5.58	0.549	0	0	1	0	2	3,222.36	68	95	TRUE	
SNU216_PC3_02	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.15	0.539	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216_PC3_02	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	99.90%	2	3	3	0.02%	6.66%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	5.67	0.458	0	0	1	1	2	3,188.48	642	669	TRUE	
SNU216_PC3_02	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	99.90%	2	3	3	0.02%	6.66%	SDSASSEPVGIYQGFEK	R	K	95.00%	3.45	0.372	0	1	0	0	2	1,880.80	302	318	TRUE	
SNU216_PC3_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	99.80%	2	2	2	0.01%	2.82%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.14	0.251	0	0	1	0	2	2,015.97	536	553	TRUE	
SNU216_PC3_02	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	99.80%	2	2	2	0.01%	2.82%	KGSDDAPYSPTAR	R	V	95.00%	2.54	0.212	0	1	0	0	2	1,444.61	897	909	TRUE	
SNU216_PC3_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.03%	5.99%	DGLAPEKTSPDRDK	R	K	95.00%	2.8	0.416	0	1	0	0	2	1,608.73	9	22	TRUE	
SNU216_PC3_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.03%	5.99%	EQSEVSVSPR	K	A	95.00%	2.02	0.317	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216_PC3_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.03%	5.99%	KEQSEVSVSPR	K	A	95.00%	2.09	0.315	0	1	0	0	2	1,325.61	24	34	TRUE	
SNU216_PC3_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	100.00%	4	4	4	0.03%	5.99%	KKEQSEVSVSPR	K	A	92.70%	2.31	0.199	0	1	0	0	2	1,453.70	23	34	TRUE	
SNU216_PC3_02	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	93.80%	2.25	0.178	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216_PC3_02	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.69	0.536	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC3_02	NADH-ubiquinone oxidoreductase flavoprotein 3	IPI00291016	50,984.20	99.60%	1	1	1	0.01%	2.75%	MPQPSSGRESPRH	R	-	92.40%	2.43	0.219	0	0	1	0	2	1,545.66	461	473	TRUE	
SNU216_PC3_02	pyruvate kinase 3 isoform 1	IPI00479186	57,937.50	100.00%	1	1	1	0.01%	2.07%	LDIDSPPITAR	R	N	81.70%	2.21	0.136	0	1	0	0	2	1,277.61	33	43	TRUE	
SNU216_PC3_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.97	0.207	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC3_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.65	0.277	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC3_02	Bifunctional coenzyme A synthase	IPI00184821	62,329.50	100.00%	1	1	1	0.01%	6.91%	LASVLLYSDYGIGEVPVEPLDVPLPSTIRPASF	R	Q	95.00%	8.17	0.0712	0	0	1	0	2	4,084.13	147	185	TRUE	
SNU216_PC3_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.02%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	4.48	0.452	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC3_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.02%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.67	0.626	0	1	0	0	2	2,389.89	235	254	TRUE	
SNU216_PC3_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	7	10	0.06%	4.93%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	5.08	0.45	0	1	2	1	2	2,450.06	90	113	TRUE	
SNU216_PC3_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	7	10	0.06%	4.93%	KTPEGRASPAPGSGHPEGPGAHLDMNSLD	R	A	95.00%	5.12	0.392	0	0	1	3	2	3,118.42	84	113	TRUE	
SNU216_PC3_02	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	7	10	0.06%	4.93%	TPEGRASPAPGSGHPEGPGAHLDMNSLDR	K	A	95.00%	5.23	0.397	0	0	1	1	2	2,990.32	85	113	TRUE	
SNU216_PC3_02	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	3	3	0.02%	6.46%	DRSSPPPGYIPDELHQVAR	R	N	95.00%	3.72	0.413	0	1	1	0	2	2,214.03	161	179	TRUE	
SNU216_PC3_02	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	3	3	0.02%	6.46%	RRGSDIDNPTLTVMDISPPSR	R	S	95.00%	4.95	0.479	0	0	1	0	2	2,407.14	328	348	TRUE	
SNU216_PC3_02	Isoform 1 of Phosphoacetylglucosamine mutase	IPI00030116	59,852.40	100.00%	1	1	1	0.01%	3.69%	STIGVMVTASHNPEEDNGVK	K	L	95.00%	4	0.4	0	1	0	0	2	2,164.96	55	74	TRUE	
SNU216_PC3_02	CDA02	IPI00012462	67,852.50	100.00%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.76	0.392	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216_PC3_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	4	0.03%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	3.07	0.518	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216_PC3_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	4	0.03%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	4.11	0.311	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216_PC3_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	4	0.03%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	2.74	0.42	0	0	1	0	2	1,585.72	253	267	TRUE	
SNU216_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	12	0.08%	10.40%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	6	0.0582	0	1	0	0	2	2,540.96	240	261	TRUE	
SNU216_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	12	0.08%	10.40%	DSHSSEEDEASSQTDLSQTISKK	R	T	95.00%	5.5	0.0627	0	0	1	0	2	2,669.05	240	262	TRUE	
SNU216_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	12	0.08%	10.40%	GLRDSHSSEEDEASSQTDLSQTISK	R	K	89.80%	4.31	0.117	0	0	1	0	2	2,867.16	237	261	TRUE	
SNU216_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	12	0.08%	10.40%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.99	0.545	0	1	2	0	2	2,281.08	217	235	TRUE	
SNU216_PC3_02	76 kDa protein	IPI00743778	75,757.70	100.00%	5	7	12	0.08%	10.40%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	5.53	0.547	0	2	4	0	2	2,836.13	300	324	TRUE	
SNU216_PC3_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.80%	2	2	2	0.01%	4.37%	GGSISVQVNSIKFDSE	R	-	95.00%	2.86	0.229	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216_PC3_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.80%	2	2	2	0.01%	4.37%	VAGGAAPSKPASAKK	K	G	95.00%	2.18	0.302	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216_PC3_02	Non-POU domain-containing octamer-binding pr	IPI00304596	54,231.60	100.00%	1	1	1	0.01%	4.67%	FGQAATMEGIGAIGGTPPAFNR	R	A	95.00%	2.98	0.355	0	0	1	0	2	2,243.03	435	456	TRUE	
SNU216_PC3_02	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	3	4	4	0.03%	9.32%	DSSSTDSANEKPALIPR	K	E	86.20%	2.56	0.126	0	1	0	0	2	1,867.84	114	130	TRUE	
SNU216_PC3_02	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	3	4	4	0.03%	9.32%	SQGSGNEAEPLGK	K	G	95.00%	2.06	0.335	0	1	0	0	2	1,353.57	452	464	TRUE	
SNU216_PC3_02	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	3	4	4	0.03%	9.32%	TSPVKSNTPAAHLEIKPDELAK	K	K	95.00%	3.26	0.337	0	0	1	1	2	2,426.23	194	215	TRUE	
SNU216_PC3_02	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	ETSPQVKGEEMPAGKDQEASR	K	G	95.00%	4	0.361	0	0	1	0	2	2,354.03	109	129	TRUE	
SNU216_PC3_02	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	RAPSSPVAKPGPVK	K	T	95.00%	1.85	0.311	0	1	0	0	2	1,470.78	11	24	TRUE	
SNU216_PC3_02	56 kDa protein	IPI00337602,IPI00373877	55,569.20	100.00%	2	2	2	0.01%	3.85%	ISLSKSPTKTDPK	K	N	85.30%	2.3	0.165	0	1	0	0	2	1,481.76	176	188	TRUE	
SNU216_PC3_02	56 kDa protein	IPI00337602,IPI00373877	55,569.20	100.00%	2	2	2	0.01%	3.85%	SPTKTDPKNEEEEK	K	R	95.00%	2.93	0.395	0	1	0	0	2	1,711.74	181	194	TRUE	
SNU216_PC3_02	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	1	1	1	0.01%	3.21%	NVSSFPDDATSPLQENR	R	N	95.00%	3.91	0.5	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216_PC3_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	1	1	1	0.01%	0.95%	VTGPRLVSNHSLHETSSVFVDSLTK	K	A	95.00%	3.82	0.225	0	0	0	1	2	2,790.38	2515	2539	TRUE	
SNU216_PC3_02	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	3	3	4	0.03%	4.33%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.12	0.392	0	0	0	1	2	3,598.73	873	904	TRUE	
SNU216_PC3_02	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	3	3	4	0.03%	4.33%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.5	0.405	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC3_02	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	3	3	4	0.03%	4.33%	TAQVPSPPR	R	G	95.00%	2.13	0.33	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC3_02	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	99.80%	1	1	1	0.01%	4.22%	KVSKQEEASGGPTAPK	R	A	95.00%	2.45	0.285	0	0	1	0	2	1,693.82	236	251	TRUE	
SNU216_PC3_02	H326	IPI00290071,IPI00640954,IP	23,518.60	99.80%	1	2	2	0.01%	3.52%	VHDRSEEEEEEEEEEEEQPR	R	R	95.00%	7.07	0.615	0	1	1	0	2	2,752.04	95	115	TRUE	
SNU216_PC3_02	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	2	2	0.01%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.57	0.466	0	0	1	0	2	1,689.71	1052	1066	TRUE	
SNU216_PC3_02	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	2	2	0.01%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	3.95	0.346	0	0	1	0	2	1,717.72	1051	1065	TRUE	
SNU216_PC3_02	Protein Red	IPI00011875	65,633.20	100.00%	1	1	1	0.01%	2.87%	LLMTPRAAPTSAPPSK	K	S	94.60%	2.39	0.236	0	1	0	0	2	1,717.87	39	54	TRUE	
SNU216_PC3_02	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	100.00%	1	1	1	0.01%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	3.16	0.395	0	1	0	0	2	1,586.78	68	81	TRUE	
SNU216_PC3_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	1	2	4	0.03%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.62	0.482	0	2	2	0	2	2,051.83	68	85	TRUE	
SNU216_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.05%	15.90%	ASSLSESSPPK	R	A	95.00%	1.92	0.32	0	1	0	0	2	1,169.51	367	377	TRUE	
SNU216_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.05%	15.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.32	0.552	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.05%	15.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.44	0.452	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.05%	15.90%	LRSPPEALVQGR	R	Y	95.00%	2.83	0.285	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.05%	15.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.73	0.531	0	1	0	0	2	1,980.95	350	366	TRUE	
SNU216_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.05%	15.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.43	0.554	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216_PC3_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.05%	15.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.78	0.399	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	6	9	0.06%	10.20%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.9	0.519	0	2	3	0	2	2,586.99	308	328	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	6	9	0.06%	10.20%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	7.16	0.549	0	0	1	1	2	3,394.35	302	328	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	6	9	0.06%	10.20%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.26	0.398	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	6	9	0.06%	10.20%	RHEEQQRELEEEEENSDEDELDSHTMVK	K	T	95.00%	6.19	0.392	0	0	0	1	2	3,550.46	301	328	TRUE	
SNU216_PC3_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.01%	1.62%	NRSAEEGELAESK	R	S	95.00%	3.51	0.321	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC3_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.01%	1.62%	VPSSDEEVVEEPQSR	R	R	95.00%	3.84	0.479	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC3_02	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	5	5	0.03%	8.68%	APAPLGTVADSLRASDGQLQAK	K	A	95.00%	3.72	0.528	0	1	1	0	2	2,246.12	187	208	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	5	5	0.03%	8.68%	KWSNSQPADLAHMGR	R	S	95.00%	3.97	0.42	0	1	1	0	2	1,777.78	143	157	TRUE	
SNU216_PC3_02	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	3	5	5	0.03%	8.68%	SFSEDTLMDGPAR	R	I	95.00%	2.76	0.387	0	1	0	0	2	1,505.60	123	135	TRUE	
SNU216_PC3_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	7	0.04%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	4	0.443	0	1	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC3_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	7	0.04%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.78	0.398	0	1	1	1	2	2,184.10	472	489	TRUE	
SNU216_PC3_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	7	7	0.04%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.25	0.531	0	1	1	0	2	1,899.91	474	489	TRUE	
SNU216_PC3_02	cystathionine-beta-synthase	IPI00219352,IPI00219649	60,587.30	99.80%	1	1	1	0.01%	2.54%	GSLEKGSPEDKEAK	K	E	95.00%	2.61	0.403	0	1	0	0	2	1,554.71	26	39	TRUE	
SNU216_PC3_02	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	3	3	3	0.02%	13.60%	AETSEGSGSAPAVPEASASPK	K	Q	95.00%	5.12	0.621	0	1	0	0	2	2,009.87	74	94	TRUE	
SNU216_PC3_02	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	3	3	3	0.02%	13.60%	EGKHEPVQPSAHHSAEPAEAGKAETSEGSG	K	Q	95.00%	6.26	0.513	0	0	0	1	2	4,283.95	52	94	TRUE	
SNU216_PC3_02	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	3	3	3	0.02%	13.60%	SSSASSPPKKEHHHHHHHSESPK	R	A	95.00%	3.25	0.176	0	0	0	1	2	2,672.19	367	389	TRUE	
SNU216_PC3_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	99.80%	2	2	2	0.01%	4.97%	ADREVQAEQPSSSSPR	K	R	95.00%	2.35	0.269	0	1	0	0	2	1,823.79	175	190	TRUE	
SNU216_PC3_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	99.80%	2	2	2	0.01%	4.97%	EVQAEQPSSSSPR	R	R	95.00%	2.97	0.43	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216_PC3_02	Matrin-3	IPI00017297	94,626.70	100.00%	2	4	4	0.03%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.04	0.428	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216_PC3_02	Matrin-3	IPI00017297	94,626.70	100.00%	2	4	4	0.03%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.84	0.387	0	1	1	0	2	1,604.68	596	609	TRUE	
SNU216_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	9	0.06%	8.98%	AAESETPGKSPEK	K	K	95.00%	2.78	0.431	0	0	1	0	2	1,410.62	418	430	TRUE	
SNU216_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	9	0.06%	8.98%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.44	0.519	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	9	0.06%	8.98%	ATNESEDEIPQLVPIGKK	K	T	95.00%	2.99	0.364	0	1	1	0	2	2,048.00	357	374	TRUE	
SNU216_PC3_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	4	6	9	0.06%	8.98%	KSPAKSPNPSTPR	K	G	95.00%	3.38	0.396	0	3	2	0	2	1,446.71	391	403	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.16	0.418	0	3	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.83	0.402	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	3.75	0.354	0	2	0	0	2	2,042.89	480	499	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	AKAGLESGAEPGDGDSDTTK	K	K	95.00%	3.83	0.453	0	1	1	0	2	1,985.83	478	497	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	AKAGLESGAEPGDGDSDTTKK	K	K	95.00%	4.22	0.348	0	1	1	0	2	2,113.93	478	498	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	EVELVSE	K	-	95.00%	1.9	0.188	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	5.82	0.474	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216_PC3_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	10	13	0.08%	10.30%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	3.96	0.26	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC3_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	2	3	3	0.02%	5.91%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	3.91	0.437	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216_PC3_02	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	2	3	3	0.02%	5.91%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	2.83	0.334	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216_PC3_02	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	1	2	2	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.87	0.461	0	1	1	0	2	2,238.86	634	651	TRUE	
SNU216_PC3_02	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.80%	2	2	2	0.01%	4.99%	EDVEVAESPLR	R	V	95.00%	2.93	0.331	0	1	0	0	2	1,323.58	510	520	TRUE	
SNU216_PC3_02	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.80%	2	2	2	0.01%	4.99%	NQSPTEAEKPASSSLPSSPPPQLLTR	K	N	95.00%	3.48	0.311	0	0	1	0	2	2,799.36	33	58	TRUE	
SNU216_PC3_02	WDR79 protein	IPI00306087	59,310.10	100.00%	3	4	4	0.03%	10.40%	GDPPRLSPDPVAGSAVSQELR	R	E	95.00%	3.5	0.233	0	0	1	0	2	2,228.07	48	68	TRUE	
SNU216_PC3_02	WDR79 protein	IPI00306087	59,310.10	100.00%	3	4	4	0.03%	10.40%	NADSELMPPPPERGDPPRLSPDPVAGSAVS	K	E	95.00%	4.39	0.425	0	0	1	1	2	3,661.73	35	68	TRUE	
SNU216_PC3_02	WDR79 protein	IPI00306087	59,310.10	100.00%	3	4	4	0.03%	10.40%	VFPEPTESGDEGEELGLPLLSTR	R	H	95.00%	4.14	0.376	0	1	0	0	2	2,552.18	484	506	TRUE	
SNU216_PC3_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	2	2	0.01%	3.04%	SRSPLELEPEAK	R	K	95.00%	3.53	0.0965	0	1	0	0	2	1,435.68	24	35	TRUE	
SNU216_PC3_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	26,758.50	99.80%	2	2	2	0.01%	3.04%	SRSPLELEPEAKK	R	L	95.00%	2.97	0.279	0	0	1	0	2	1,563.78	24	36	TRUE	
SNU216_PC3_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	99.80%	2	3	5	0.03%	1.56%	PMEEDGEEKSPSK	R	K	95.00%	2.98	0.474	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216_PC3_02	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	99.80%	2	3	5	0.03%	1.56%	RPMEEDGEEKSPSK	K	K	95.00%	3.81	0.444	0	2	2	0	2	1,698.70	372	385	TRUE	
SNU216_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	99.90%	2	2	2	0.01%	0.80%	RVPSPTPAPK	K	E	95.00%	2.25	0.259	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC3_02	splicing coactivator subunit SRm300	IPI00748920	299,621.60	99.90%	2	2	2	0.01%	0.80%	SRTPPSAPSQSR	R	M	95.00%	2.1	0.292	0	1	0	0	2	1,350.62	2407	2418	TRUE	
SNU216_PC3_02	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	2	2	0.01%	2.97%	RESPSEERLEPK	R	R	95.00%	2.44	0.316	0	1	0	0	2	1,536.71	921	932	TRUE	
SNU216_PC3_02	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	2	2	0.01%	2.97%	SHESNAPGSAGGQASEKPR	R	E	95.00%	2.56	0.226	0	0	1	0	2	1,946.84	988	1006	TRUE	
SNU216_PC3_02	Protein C2orf17	IPI00301294	57,790.20	99.80%	2	2	3	0.02%	3.68%	QALDSEEEEEDVAAK	R	E	95.00%	3.95	0.542	0	2	0	0	2	1,742.70	381	395	TRUE	
SNU216_PC3_02	Protein C2orf17	IPI00301294	57,790.20	99.80%	2	2	3	0.02%	3.68%	QALDSEEEEEDVAAKETLLR	R	L	95.00%	5.6	0.538	0	0	1	0	2	2,355.06	381	400	TRUE	
SNU216_PC3_02	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	100.00%	1	1	1	0.01%	3.99%	KVTFFEPGSGDENGTSNKEDEFR	R	M	95.00%	3.83	0.347	0	0	1	0	2	2,670.14	301	323	TRUE	
SNU216_PC3_02	Tubulin--tyrosine ligase-like protein 12	IPI00029048	74,403.70	100.00%	1	2	2	0.01%	4.04%	SSPGQTPEEGAQALAEFAALHGPALR	R	A	95.00%	4.04	0.474	0	1	1	0	2	2,685.27	15	40	TRUE	
SNU216_PC3_02	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	99.80%	2	2	2	0.01%	2.77%	NSFTPLSSSNTIR	R	R	95.00%	2.44	0.231	0	1	0	0	2	1,503.68	465	477	TRUE	
SNU216_PC3_02	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	99.80%	2	2	2	0.01%	2.77%	RNSFTPLSSSNTIR	R	R	95.00%	3.25	0.264	0	0	1	0	2	1,659.79	464	477	TRUE	
SNU216_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	FASDDEHDEHDENGATGPVK	K	R	95.00%	4.19	0.405	0	0	1	0	2	2,249.86	364	383	TRUE	
SNU216_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	3.37	0.476	0	1	2	1	2	2,405.96	364	384	TRUE	
SNU216_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	3.47	0.401	0	0	1	0	2	2,479.00	362	383	TRUE	
SNU216_PC3_02	Lupus La protein	IPI00009032	46,839.00	100.00%	4	7	10	0.06%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	3.48	0.339	0	0	2	2	2	2,635.11	362	384	TRUE	
SNU216_PC3_02	Lamin-B1	IPI00217975	66,278.40	100.00%	2	3	3	0.02%	7.18%	AGGPTTPLSPTR	R	L	93.00%	1.19	0.293	1	1	0	0	2	1,314.55	14	25	TRUE	
SNU216_PC3_02	Lamin-B1	IPI00217975	66,278.40	100.00%	2	3	3	0.02%	7.18%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	4.71	0.437	0	0	1	0	2	3,491.54	547	576	TRUE	
SNU216_PC3_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	13.80%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.63	0.505	0	1	0	0	2	2,154.95	198	218	TRUE	
SNU216_PC3_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	13.80%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	93.60%	7.28	0.0069	0	0	1	0	2	3,066.27	16	41	TRUE	
SNU216_PC3_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	13.80%	STGSPTQETQAPFIAK	K	R	95.00%	2.91	0.383	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216_PC3_02	hypothetical protein LOC84081 isoform 1	IPI00030274	66,390.60	99.80%	1	1	1	0.01%	5.91%	KTQQLHPVLQKPSVFGNDSDDDDETSVSE	K	E	95.00%	4.99	0.11	0	0	1	0	2	3,779.74	15	47	TRUE	
SNU216_PC3_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	1	2	3	0.02%	3.56%	HTGPNSPDTANDGFVR	K	L	95.00%	3.1	0.394	0	2	1	0	2	1,764.73	99	114	TRUE	
SNU216_PC3_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.50%	2	2	2	0.01%	4.07%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	3.22	0.249	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216_PC3_02	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	99.50%	2	2	2	0.01%	4.07%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	89.80%	5.92	0.0357	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC3_02	Isoform 1 of Cisplatin resistance-associated overe	IPI00107745	51,467.10	100.00%	1	1	1	0.01%	5.56%	ESDTKNEVNGTSEDIKSEGDTQSN	K	-	95.00%	3.37	0.173	0	1	0	0	2	2,664.08	409	432	TRUE	
SNU216_PC3_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	3	3	3	0.02%	5.13%	EAEDSDSDDNIKR	K	G	95.00%	2.3	0.297	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC3_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	3	3	3	0.02%	5.13%	HQASDSENEELPKPR	R	I	95.00%	2.32	0.405	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC3_02	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	3	3	3	0.02%	5.13%	MDSDEDEKEGEEEK	K	V	95.00%	2.88	0.391	0	1	0	0	2	1,749.60	375	388	TRUE	
SNU216_PC3_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	4	4	0.03%	1.66%	GRSFAGNLNTYK	R	R	95.00%	3.84	0.406	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216_PC3_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	4	4	0.03%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	2.89	0.329	0	1	1	0	2	1,563.74	384	396	TRUE	
SNU216_PC3_02	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	4	4	0.03%	1.66%	SFAGNLNTYK	R	R	95.00%	2.18	0.261	0	1	0	0	2	1,194.52	386	395	TRUE	
SNU216_PC3_02	OTTHUMP00000028561	IPI00396634	196,711.40	99.10%	2	2	2	0.01%	1.77%	AKLDPEPEKAAESPSPR	K	L	82.90%	2.43	0.178	0	0	1	0	2	1,901.90	390	406	TRUE	
SNU216_PC3_02	OTTHUMP00000028561	IPI00396634	196,711.40	99.10%	2	2	2	0.01%	1.77%	KEESDEEETASKAER	R	T	95.00%	3.38	0.38	0	0	1	0	2	1,817.74	1698	1712	TRUE	
SNU216_PC3_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	2	2	2	0.01%	4.77%	DYSEADGLSERTTPSK	K	A	89.10%	2.26	0.258	0	1	0	0	2	1,835.77	67	82	TRUE	
SNU216_PC3_02	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	2	2	2	0.01%	4.77%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	94.20%	2.57	0.223	0	0	1	0	2	2,794.21	430	455	TRUE	
SNU216_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	7	0.04%	10.20%	ARHDSPDLAPNVTYSLPR	R	T	94.40%	2.21	0.214	0	1	0	0	2	2,088.99	267	284	TRUE	
SNU216_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	7	0.04%	10.20%	ATDSDLSSPR	K	H	95.00%	2.35	0.319	0	1	0	0	2	1,128.46	351	360	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	7	0.04%	10.20%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.27	0.355	0	1	0	0	2	1,861.85	269	284	TRUE	
SNU216_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	7	0.04%	10.20%	HDSPDPSPPR	R	R	95.00%	2.12	0.406	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	7	0.04%	10.20%	HDSPDPSPPRR	R	P	95.00%	2.18	0.333	0	1	0	0	2	1,420.54	195	205	TRUE	
SNU216_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	7	0.04%	10.20%	HDTPDPSPLR	R	G	95.00%	2.44	0.437	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216_PC3_02	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	7	7	0.04%	10.20%	NSKYEYDPDISPPR	K	K	95.00%	2.94	0.298	0	1	0	0	2	1,760.75	315	328	TRUE	
SNU216_PC3_02	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	107,193.00	98.70%	1	1	1	0.01%	1.23%	SLSPGGAALGYR	R	D	95.00%	2.42	0.245	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216_PC3_02	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	KPEDVLDDDDAGSAPLK	R	S	95.00%	3.55	0.198	0	1	0	0	2	1,864.82	234	250	TRUE	
SNU216_PC3_02	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	95.00%	2.78	0.285	0	1	0	0	2	2,020.92	233	250	TRUE	
SNU216_PC3_02	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	3	3	3	0.02%	3.06%	LQAKESPQR	R	K	91.80%	1.85	0.222	0	1	0	0	2	1,136.55	72	80	TRUE	
SNU216_PC3_02	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	3	3	3	0.02%	3.06%	RKSGGNEVSIEER	K	L	90.20%	2.09	0.257	0	1	0	0	2	1,540.71	429	441	TRUE	
SNU216_PC3_02	WD-repeat protein 43	IPI00055954,IPI00736707,IP	57,404.10	100.00%	3	3	3	0.02%	3.06%	SGGNEVSIEER	K	L	95.00%	2.38	0.37	0	1	0	0	2	1,256.52	431	441	TRUE	
SNU216_PC3_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	2.30%	NEEPSEEEIDAPKPK	K	K	95.00%	3.9	0.401	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216_PC3_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	2.30%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	3.49	0.321	0	0	1	0	2	2,119.98	114	131	TRUE	
SNU216_PC3_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	1.67%	EESYSPSKDR	K	N	95.00%	2.01	0.409	0	1	0	0	2	1,277.50	428	437	TRUE	
SNU216_PC3_02	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	99.80%	2	2	2	0.01%	1.67%	IESDEEEDFENVGK	R	V	95.00%	3.37	0.456	0	1	0	0	2	1,719.66	1302	1315	TRUE	
SNU216_PC3_02	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.51	0.552	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216_PC3_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.73	0.442	0	1	0	0	2	1,617.62	79	92	TRUE	
SNU216_PC3_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	2	0.01%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.97	0.366	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216_PC3_02	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	1	1	1	0.01%	2.37%	EESDDEAAVEEEEEEKKPK	K	T	95.00%	4.04	0.426	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216_PC3_02	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	1	2	4	0.03%	1.68%	ERSPALKSPLQSVVVR	R	R	95.00%	3.32	0.415	0	2	2	0	2	1,925.96	246	261	TRUE	
SNU216_PC3_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	3	3	3	0.02%	2.68%	DSSFTEVPRSPK	R	H	95.00%	2.91	0.428	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216_PC3_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	3	3	3	0.02%	2.68%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.14	0.482	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC3_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	3	3	3	0.02%	2.68%	SPSFGDPQLSPEARPR	R	C	95.00%	2.53	0.327	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216_PC3_02	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	3	3	0.02%	5.39%	EKLQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	4.96	0.402	0	0	1	0	2	2,919.15	41	67	TRUE	
SNU216_PC3_02	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	3	3	0.02%	5.39%	LQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.34	0.59	0	1	1	0	2	2,662.01	43	67	TRUE	
SNU216_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	LPLVPESPRR	R	M	95.00%	2.27	0.378	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	2.55	0.285	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.01	0.413	0	2	0	0	2	2,008.94	381	399	TRUE	
SNU216_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SQDATFSPGSEQAEK	R	S	95.00%	3.43	0.343	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216_PC3_02	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	5	6	0.04%	10.40%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	4.77	0.395	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC3_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	3	3	0.02%	8.43%	SGDETPGSEVPGDK	R	A	95.00%	2.09	0.308	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC3_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	3	3	0.02%	8.43%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	4.51	0.471	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216_PC3_02	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	3	3	3	0.02%	8.43%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	5.31	0.474	0	0	0	1	2	4,198.92	226	261	TRUE	
SNU216_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	5	6	6	0.04%	5.49%	EGHGSSSFDRELER	R	E	93.90%	2.09	0.272	0	1	0	0	2	1,685.69	173	186	TRUE	
SNU216_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	5	6	6	0.04%	5.49%	RRSQSIEQESQEK	R	Q	95.00%	3.7	0.334	0	1	1	0	2	1,684.77	414	426	TRUE	
SNU216_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	5	6	6	0.04%	5.49%	RSQSIEQESQEK	R	Q	95.00%	3.23	0.162	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	5	6	6	0.04%	5.49%	SQSIEQESQEK	R	Q	95.00%	2.45	0.391	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216_PC3_02	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	5	6	6	0.04%	5.49%	SQSIEQESQEKQHK	R	N	95.00%	3.19	0.306	0	0	1	0	2	1,765.78	416	429	TRUE	
SNU216_PC3_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	99.80%	2	2	2	0.01%	4.05%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	3.01	0.369	0	0	1	0	2	2,045.97	488	506	TRUE	
SNU216_PC3_02	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	99.80%	2	2	2	0.01%	4.05%	TNSSDSERSPDLGHSTQIPR	R	K	95.00%	3.56	0.161	0	0	1	0	2	2,343.96	526	545	TRUE	
SNU216_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	5	6	0.04%	8.49%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.03	0.446	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	5	6	0.04%	8.49%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.51	0.342	0	0	2	0	2	3,647.49	108	138	TRUE	
SNU216_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	5	6	0.04%	8.49%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.46	0.514	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216_PC3_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	5	6	0.04%	8.49%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	3.95	0.351	0	0	0	1	2	3,787.60	107	138	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.95	0.556	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	TGSESSQTGTSTTSSR	R	N	88.30%	3.51	0.0291	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	7.17%	LRLSPSPTSQR	R	S	95.00%	1.94	0.34	0	1	0	0	2	1,401.63	387	397	TRUE	
SNU216_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	7.17%	NKSNEDQSMGNWQIK	R	R	95.00%	3.79	0.43	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	7.17%	NKSNEDQSMGNWQIKR	R	Q	95.00%	4.25	0.5	0	0	1	0	2	2,014.88	456	471	TRUE	
SNU216_PC3_02	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	7.17%	SGAQASSTPLSPTR	R	I	94.70%	3.31	0.074	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216_PC3_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	3	3	0.02%	12.10%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	90.00%	6.87	0.0128	0	0	1	1	2	3,993.83	51	90	TRUE	
SNU216_PC3_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	3	3	0.02%	12.10%	TVQSLEIDLDSMR	R	N	95.00%	2.52	0.2	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216_PC3_02	Histone H1.5	IPI00217468	22,450.50	100.00%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	5.08	0.464	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC3_02	Histone H1.5	IPI00217468	22,450.50	100.00%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.49	0.382	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	DLPAQRGEESSEEEEKGYK	R	G	95.00%	2.25	0.349	0	1	0	0	2	2,340.93	150	168	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	EESEESEAEPVQR	R	T	95.00%	2.77	0.31	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	ESEQESEEEILAQKK	K	E	95.00%	3.29	0.321	0	1	0	0	2	1,856.82	222	236	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	EVSDSEAGGGPQGER	R	K	95.00%	3.49	0.583	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	EVSDSEAGGGPQGERK	R	N	95.00%	2.8	0.338	0	1	1	0	2	1,682.70	368	383	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	GEESSEEEEKGYK	R	G	93.00%	1.68	0.308	0	1	0	0	2	1,660.57	156	168	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	KQAREESEESEAEPVQR	R	T	95.00%	2.48	0.327	0	1	0	0	2	2,081.91	190	206	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	QAREESEESEAEPVQR	K	T	95.00%	2.54	0.409	0	2	0	0	2	1,953.82	191	206	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	RLSGSSEDEEDSGKGEPTAK	K	G	95.00%	2.12	0.251	0	1	0	0	2	2,318.85	328	347	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	SLKESEQESEEEILAQKK	K	E	95.00%	3.47	0.152	0	0	1	0	2	2,264.99	219	236	TRUE	
SNU216_PC3_02	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	11	12	13	0.08%	19.80%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.86	0.219	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC3_02	P63 protein	IPI00141318	66,022.20	100.00%	1	1	1	0.01%	2.16%	GAHPSGGADDVAK	K	K	95.00%	2	0.371	0	1	0	0	2	1,261.52	22	34	TRUE	
SNU216_PC3_02	Protein DEK	IPI00020021	42,675.90	99.90%	1	2	2	0.01%	5.60%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.06	0.645	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216_PC3_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMR	R	K	95.00%	3.65	0.417	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216_PC3_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMRK	R	K	95.00%	4.91	0.431	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	6	7	0.04%	26.30%	ATVTPSPVKGK	K	G	80.90%	2.21	0.152	0	1	0	0	2	1,164.60	176	186	TRUE	
SNU216_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	6	7	0.04%	26.30%	EEDEEPESPPEKK	K	T	86.70%	1.97	0.257	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	6	7	0.04%	26.30%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	3.21	0.408	0	0	1	0	2	2,445.97	9	28	TRUE	
SNU216_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	6	7	0.04%	26.30%	LKATVTPSPVKGK	R	G	95.00%	3	0.325	0	0	1	0	2	1,405.78	174	186	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	6	7	0.04%	26.30%	NSQEDSEDSEDKDVK	K	T	95.00%	3.62	0.391	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC3_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	6	7	0.04%	26.30%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	1.87	0.373	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216_PC3_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	2	2	0.01%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	2.14	0.244	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC3_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	2	2	2	0.01%	16.10%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.79	0.533	0	0	1	0	2	3,657.52	143	174	TRUE	
SNU216_PC3_02	Isoform B of Ras-GTPase-activating protein-bindir	IPI00179890	50,816.80	100.00%	4	7	11	0.07%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPK	K	P	95.00%	5.1	0.477	0	0	1	0	2	2,936.42	217	242	TRUE	
SNU216_PC3_02	Isoform B of Ras-GTPase-activating protein-bindir	IPI00179890	50,816.80	100.00%	4	7	11	0.07%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPKPR	K	V	95.00%	6.89	0.602	0	0	1	2	2	3,189.57	217	244	TRUE	
SNU216_PC3_02	Isoform B of Ras-GTPase-activating protein-bindir	IPI00179890	50,816.80	100.00%	4	7	11	0.07%	6.24%	STTPPPAEPVSLPQEPPK	K	P	95.00%	3.02	0.415	0	1	0	0	2	1,951.94	225	242	TRUE	
SNU216_PC3_02	Isoform B of Ras-GTPase-activating protein-bindir	IPI00179890	50,816.80	100.00%	4	7	11	0.07%	6.24%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.09	0.582	0	2	3	1	2	2,205.10	225	244	TRUE	
SNU216_PC3_02	Heat shock protein 60	IPI00472102	61,213.90	100.00%	1	1	1	0.01%	2.09%	TVIIEQSWGSPK	R	V	95.00%	3.92	0.374	0	1	0	0	2	1,424.68	61	72	TRUE	
SNU216_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	7	7	0.04%	6.19%	DMESPTKLDVTLAK	K	D	95.00%	3.1	0.449	0	0	1	0	2	1,627.77	305	318	TRUE	
SNU216_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	7	7	0.04%	6.19%	DMSPLSETEMALGK	K	D	95.00%	3.15	0.45	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	7	7	0.04%	6.19%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.6	0.361	0	0	1	0	2	3,106.50	533	560	TRUE	
SNU216_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	7	7	0.04%	6.19%	DVTPPPETEVVLIK	K	N	93.70%	2.34	0.184	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	7	7	0.04%	6.19%	ETERASPIKMDLAPSK	K	D	95.00%	3.12	0.233	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC3_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	7	7	0.04%	6.19%	RASPSKPASAPASR	K	S	95.00%	2.95	0.428	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC3_02	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	GPDEAMEDGEEGSDDEAEWVVTK	R	D	95.00%	5.87	0.594	0	3	1	0	2	2,574.97	426	448	TRUE	
SNU216_PC3_02	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	5	0.03%	8.10%	SKYDEIFYNLAPADGKLSGSK	K	A	95.00%	4.03	0.371	0	0	1	0	2	2,383.12	451	471	TRUE	
SNU216_PC3_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	3	3	3	0.02%	3.40%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	4.93	0.423	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216_PC3_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	3	3	3	0.02%	3.40%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.04	0.44	0	0	1	0	2	3,282.51	1464	1495	TRUE	
SNU216_PC3_02	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	3	3	3	0.02%	3.40%	SEDMPFSPK	R	A	95.00%	2.15	0.218	0	1	0	0	2	1,117.43	264	272	TRUE	
SNU216_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	6.63%	HLFSSTENLAAGSWKEPAEGGGLSSDR	K	Q	95.00%	4.93	0.4	0	0	1	0	2	2,883.29	353	379	TRUE	
SNU216_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	6.63%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	86.00%	5.93	0.0268	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	6.63%	NNMTASMFDLSMKDK	R	S	95.00%	2.33	0.309	0	1	0	0	2	1,812.74	151	165	TRUE	
SNU216_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	6.63%	RSSLLSLMTGK	R	K	95.00%	2.29	0.296	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC3_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	5	5	5	0.03%	6.63%	RSSLLSLMTGKK	R	D	93.50%	2.52	0.227	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	7	9	0.06%	19.80%	IVEPEVVGESDSEVEGDAWR	K	M	95.00%	4.57	0.527	0	1	1	0	2	2,281.99	107	126	TRUE	
SNU216_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	7	9	0.06%	19.80%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	3.49	0.326	0	0	1	0	2	2,410.08	106	126	TRUE	
SNU216_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	7	9	0.06%	19.80%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	3.75	0.473	0	0	2	0	2	2,786.98	127	147	TRUE	
SNU216_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	7	9	0.06%	19.80%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	2.94	0.324	0	0	1	0	2	2,642.06	44	64	TRUE	
SNU216_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	7	9	0.06%	19.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	3.96	0.381	0	0	2	0	2	2,770.16	44	65	TRUE	
SNU216_PC3_02	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	7	9	0.06%	19.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.18	0.579	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	6	6	0.04%	4.33%	DKEVSDDEAEEK	R	E	95.00%	2.52	0.3	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	6	6	0.04%	4.33%	DKEVSDDEAEEKEDK	R	E	95.00%	4.18	0.44	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	6	6	0.04%	4.33%	ERDKEVSDDEAEEK	K	E	95.00%	3.01	0.259	0	0	1	0	2	1,758.71	347	360	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	6	6	0.04%	4.33%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.27	0.472	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	6	6	0.04%	4.33%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	3.73	0.336	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216_PC3_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	100.00%	2	3	3	0.02%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.83	0.304	0	0	1	1	0	2	2,154.05	81	100	TRUE	
SNU216_PC3_02	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	100.00%	2	3	3	0.02%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.34	0.277	0	1	1	0	2	1,997.94	82	100	TRUE	
SNU216_PC3_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	6.26	0.373	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216_PC3_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	4.45	0.495	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216_PC3_02	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	99.80%	1	1	1	0.01%	2.81%	MEVGPFSTGQESPTAENAR	R	L	95.00%	3.69	0.394	0	1	0	0	2	2,087.87	606	624	TRUE	
SNU216_PC3_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	1	1	1	0.01%	2.49%	SLDMDSIIAEVK	R	A	95.00%	2.72	0.25	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	7	0.04%	10.40%	EDTDHEEKASNEDVTK	K	A	95.00%	2.34	0.306	0	0	1	0	2	1,926.76	120	135	TRUE	
SNU216_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	7	0.04%	10.40%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.85	0.273	0	0	2	1	2	2,558.08	114	135	TRUE	
SNU216_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	7	0.04%	10.40%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	5.06	0.395	0	0	1	1	2	3,116.31	101	127	TRUE	
SNU216_PC3_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	6	7	0.04%	10.40%	TGVTSTSDSEEEGDDQEGEK	K	K	88.90%	3.64	0.0196	0	1	0	0	2	2,259.77	267	286	TRUE	
SNU216_PC3_02	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.03%	7.71%	KTNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.93	0.457	0	0	0	1	2	2,525.28	405	427	TRUE	
SNU216_PC3_02	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.03%	7.71%	SASDNTLVAMDFSGHAGR	R	V	95.00%	4.22	0.543	0	1	1	0	2	1,915.80	366	383	TRUE	
SNU216_PC3_02	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.03%	7.71%	TNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.97	0.332	0	0	1	0	2	2,397.19	406	427	TRUE	
SNU216_PC3_02	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	1	1	1	0.01%	5.04%	NHSDSSTSESEVSSVSPLKNK	K	H	95.00%	4.53	0.41	0	0	1	0	2	2,299.01	211	231	TRUE	
SNU216_PC3_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.58	0.3	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216_PC3_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	99.80%	2	2	2	0.01%	4.76%	STGVSFWTQDSDENEQEQQSDTEEGSNKK	R	E	95.00%	3.55	0.235	0	0	1	0	2	3,370.35	852	880	TRUE	
SNU216_PC3_02	Alpha-taxilin	IPI00470779	61,891.20	100.00%	1	2	2	0.01%	2.56%	RPEGPGAQPASPSPR	R	V	95.00%	3	0.335	0	1	1	0	2	1,486.68	504	517	TRUE	
SNU216_PC3_02	Septin-2	IPI00014177	41,488.20	99.80%	1	3	3	0.02%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.09	0.383	0	1	1	1	2	2,517.05	210	229	TRUE	
SNU216_PC3_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	1	1	2	0.01%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	2.59	0.476	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216_PC3_02	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	1	1	1	0.01%	5.62%	KILDPNTGEPAPVLSSPPPADVSTFLAFPSPE	R	L	88.00%	6.41	0.0411	0	0	1	0	2	3,498.74	413	445	TRUE	
SNU216_PC3_02	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	99.80%	2	2	3	0.02%	6.69%	SAASREDLVGPEVGASPQSGRK	R	S	95.00%	2.98	0.206	0	0	1	0	2	2,278.08	258	279	TRUE	
SNU216_PC3_02	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	99.80%	2	2	3	0.02%	6.69%	SVAAEGALLPQTPPSPR	K	N	95.00%	3.5	0.31	0	2	0	0	2	1,850.85	280	296	TRUE	
SNU216_PC3_02	Histone deacetylase 1	IPI00013774	55,104.10	99.80%	1	2	10	0.06%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	K	I	95.00%	5.87	0.52	0	0	5	5	2	3,711.58	372	404	TRUE	
SNU216_PC3_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.80%	2	2	2	0.01%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.73	0.358	0	1	0	0	2	1,896.75	495	510	TRUE	
SNU216_PC3_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.80%	2	2	2	0.01%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	2.59	0.399	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216_PC3_02	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	7	0.04%	7.42%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	3.7	0.475	0	2	2	0	2	1,957.90	293	311	TRUE	
SNU216_PC3_02	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	7	0.04%	7.42%	SPSPPDGSPAATPEIR	K	V	95.00%	2.85	0.528	0	2	0	0	2	1,658.74	296	311	TRUE	
SNU216_PC3_02	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	7	0.04%	7.42%	VNHEPEPAGGATPGATLPKSPSQLR	R	K	95.00%	4.3	0.538	0	0	0	1	2	2,591.26	312	336	TRUE	
SNU216_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	7	0.04%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.45	0.377	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	7	0.04%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.04	0.412	0	2	1	0	2	2,188.85	552	570	TRUE	
SNU216_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	7	0.04%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.45	0.336	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216_PC3_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	6	7	0.04%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.21	0.44	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC3_02	Isoform 2 of N-acetylserotonin O-methyltransfera	IPI00249080,IPI00479385,IP	69,791.70	99.80%	2	2	2	0.01%	4.79%	HDSIPAADTFEDLSDVEGGGSEPTQR	K	D	95.00%	4.91	0.379	0	0	1	0	2	2,810.18	227	252	TRUE	
SNU216_PC3_02	Isoform 2 of N-acetylserotonin O-methyltransfera	IPI00249080,IPI00479385,IP	69,791.70	99.80%	2	2	2	0.01%	4.79%	SVKHDSIPAADTFEDLSDVEGGGSEPTQR	R	D	95.00%	4.7	0.487	0	0	1	0	2	3,124.37	224	252	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	ETQSPEQVKSEK	K	L	95.00%	3.16	0.435	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.02	0.586	0	2	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.42	0.502	0	0	1	0	2	2,726.13	369	391	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	KAEGEPQEESPLK	K	S	95.00%	2.97	0.203	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	KAEGEPQEESPLKSK	K	S	95.00%	4.83	0.43	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	KETQSPEQVKSEK	K	L	95.00%	3.58	0.312	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	LKDLFDYSPPLHK	K	N	95.00%	2.67	0.306	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	NTPSQHSHSIQHSPER	K	S	95.00%	2.57	0.261	0	1	2	0	2	1,921.83	256	271	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.78	0.558	0	1	1	0	2	2,257.84	392	409	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	4.2	0.377	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC3_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	11	16	18	0.12%	14.70%	SSSSSASPSSPSSREEK	R	E	84.20%	2.22	0.204	0	1	0	0	2	1,776.73	751	767	TRUE	
SNU216_PC3_02	Chromodomain Y-like protein	IPI00293963,IPI00480205,IP	66,482.20	99.80%	2	2	2	0.01%	3.51%	ILVPKSPVK	K	S	95.00%	2.27	0.289	0	1	0	0	2	1,060.62	196	204	TRUE	
SNU216_PC3_02	Chromodomain Y-like protein	IPI00293963,IPI00480205,IP	66,482.20	99.80%	2	2	2	0.01%	3.51%	STNSNFSKTSPK	R	A	95.00%	2.89	0.426	0	1	0	0	2	1,377.60	140	151	TRUE	
SNU216_PC3_02	Calmin	IPI00101942	111,652.50	100.00%	3	3	3	0.02%	6.49%	FPELEAEDIFDSDKEVPIESTFVR	R	I	95.00%	4.12	0.263	0	0	1	0	2	2,892.32	290	313	TRUE	
SNU216_PC3_02	Calmin	IPI00101942	111,652.50	100.00%	3	3	3	0.02%	6.49%	HDEESHSLSPPGENTVMADSFQIK	R	V	95.00%	3.87	0.327	0	0	1	0	2	2,735.17	518	541	TRUE	
SNU216_PC3_02	Calmin	IPI00101942	111,652.50	100.00%	3	3	3	0.02%	6.49%	TSDISEPSPESSILSSR	K	K	95.00%	3	0.274	0	1	0	0	2	1,871.83	395	411	TRUE	
SNU216_PC3_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	99.80%	2	2	2	0.01%	2.21%	AQAVSEEEEEEEGK	K	S	95.00%	2.07	0.34	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216_PC3_02	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	99.80%	2	2	2	0.01%	2.21%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	2.12	0.272	0	1	0	0	2	2,209.84	78	96	TRUE	
SNU216_PC3_02	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	2	2	2	0.01%	8.87%	LFGGFNSSDTVTSPQR	K	A	95.00%	3.02	0.346	0	1	0	0	2	1,792.79	62	77	TRUE	
SNU216_PC3_02	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	2	2	2	0.01%	8.87%	SLEPAENVHGAGGGAFPASQTPSKPASADC	R	G	95.00%	5.1	0.43	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216_PC3_02	protein kinase, AMP-activated, alpha 1 catalytic su	IPI00011891,IPI00410287	65,524.40	99.80%	1	2	2	0.01%	4.47%	DFYLATSPPDSFLDDHHLTRPHPER	K	V	95.00%	3.73	0.372	0	0	1	1	2	3,043.37	365	389	TRUE	
SNU216_PC3_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.64	0.512	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216_PC3_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	RISLSDMPR	R	S	95.00%	1.9	0.232	0	1	0	0	2	1,154.54	442	450	TRUE	
SNU216_PC3_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	SPMSTNSSVHTGSDVEQDAEKK	R	A	92.70%	3.57	0.134	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC3_02	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	4	4	4	0.03%	5.11%	VKLNFDMTASPK	K	I	95.00%	2.34	0.282	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216_PC3_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	2	3	3	0.02%	3.99%	RPDPDSDEDEDYER	R	E	95.00%	3.62	0.6	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC3_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	2	3	3	0.02%	3.99%	RPDPDSDEDEDYERER	R	R	95.00%	3.17	0.403	0	1	1	0	2	2,102.79	57	72	TRUE	
SNU216_PC3_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	99.80%	2	2	2	0.01%	6.08%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	2.4	0.273	0	0	1	0	2	2,797.10	89	114	TRUE	
SNU216_PC3_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	99.80%	2	2	2	0.01%	6.08%	GNDSDGEGESDDPEKKK	K	L	95.00%	3.89	0.394	0	0	1	0	2	1,886.73	99	115	TRUE	
SNU216_PC3_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKR	K	N	95.00%	3.02	0.382	0	2	0	0	2	1,811.70	491	505	TRUE	
SNU216_PC3_02	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	3	0.02%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.77	0.272	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216_PC3_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	2	2	2	0.01%	3.45%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.11	0.461	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216_PC3_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	100.00%	2	2	2	0.01%	3.45%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	2.68	0.372	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216_PC3_02	Isoform 4 of Apoptosis inhibitor 5	IPI00006684,IPI00554742,IP	56,772.30	99.80%	1	1	1	0.01%	2.69%	RASEDTTSGSPPKK	K	S	95.00%	2.72	0.307	0	0	1	0	2	1,540.70	455	468	TRUE	
SNU216_PC3_02	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	99.80%	1	1	1	0.01%	2.91%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.48	0.38	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216_PC3_02	Dihydropyrimidinase-related protein 2	IPI00257508	62,294.00	100.00%	2	2	2	0.01%	3.67%	TSPAKQQAPPVR	K	N	95.00%	2.45	0.4	0	1	0	0	2	1,359.68	521	532	TRUE	
SNU216_PC3_02	Dihydropyrimidinase-related protein 2	IPI00257508	62,294.00	100.00%	2	2	2	0.01%	3.67%	TVTPASSAKTSPAKQQAPPVR	K	N	84.30%	4.58	0.0622	0	0	1	0	2	2,282.09	512	532	TRUE	
SNU216_PC3_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLR	K	K	95.00%	2.14	0.354	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216_PC3_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLRK	K	L	95.00%	3.16	0.431	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	AATSGVPSIYAPSTYAHLSPAK	K	T	95.00%	2.95	0.326	0	1	0	0	2	2,269.09	295	316	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	AMSEVTSLHEDDWR	R	S	95.00%	3.08	0.419	0	1	0	0	2	1,755.70	411	424	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.42	0.58	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	GPALTPIRDEEWGGHSPRSPR	R	G	95.00%	3.16	0.457	0	0	1	0	2	2,395.13	430	450	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	SRDDLYDQDDDSR	R	D	83.80%	2.1	0.168	0	1	0	0	2	1,564.59	511	522	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	SRDDLYDQDDSRDFPR	R	S	95.00%	3.13	0.395	0	1	0	0	2	2,079.84	511	526	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	SRSRDDLYDQDDSR	R	D	95.00%	3.32	0.38	0	1	1	0	2	1,807.72	509	522	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	SSSAGGQGSYVPLLR	R	D	95.00%	2.44	0.293	0	1	0	0	2	1,558.73	344	358	TRUE	
SNU216_PC3_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	11	11	0.07%	17.10%	SVDALDDLTPPSTAESGSR	R	S	95.00%	3.33	0.472	0	1	0	0	2	1,997.87	474	492	TRUE	
SNU216_PC3_02	Isoform 2 of Double-stranded RNA-binding prote	IPI00164481,IPI00300789,IP	34,358.40	99.80%	1	1	1	0.01%	3.16%	GILHLSPDVYQEMEASR	K	H	95.00%	3.03	0.368	0	1	0	0	2	2,024.91	214	230	TRUE	
SNU216_PC3_02	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	2	4	0.03%	6.79%	EATAQKPTGSVGSTVTTPPPLVR	K	G	95.00%	3.56	0.448	0	0	1	0	2	2,374.20	173	195	TRUE	
SNU216_PC3_02	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	2	4	0.03%	6.79%	RPPSPDVIVLSDNEQPSSPR	R	V	95.00%	2.89	0.266	0	0	3	0	2	2,430.01	97	116	TRUE	
SNU216_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	4	5	0.03%	9.09%	GNSRPGTPSAEGGSTSSTLR	R	A	95.00%	3.8	0.523	0	1	2	0	2	1,998.89	383	402	TRUE	
SNU216_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	4	5	0.03%	9.09%	IHDLEDDLEMSSDASDASGEEGGR	R	V	95.00%	4.21	0.496	0	0	1	0	2	2,615.01	207	230	TRUE	
SNU216_PC3_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	4	5	0.03%	9.09%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	4.64	0.481	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216_PC3_02	Splicing factor 3 subunit 1	IPI00017451	88,886.10	99.80%	1	1	1	0.01%	2.77%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	4.29	0.255	0	0	1	0	2	2,697.03	317	338	TRUE	
SNU216_PC3_02	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	4.36	0.476	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216_PC3_02	programmed cell death 4 isoform 2	IPI00240675,IPI00290110,IP	50,577.40	99.80%	1	1	1	0.01%	2.18%	SGLTVPTSPK	R	G	95.00%	2.07	0.422	0	1	0	0	2	1,066.52	76	85	TRUE	
SNU216_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	10.70%	KPGPPLSPEIRSPAGSPELR	R	K	95.00%	2.87	0.286	0	0	1	0	2	2,325.04	421	440	TRUE	
SNU216_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	10.70%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.62	0.483	0	0	1	0	2	2,526.21	280	301	TRUE	
SNU216_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	10.70%	KTSPASLDFPESQK	R	S	95.00%	3.72	0.494	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	10.70%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	3.34	0.304	0	0	1	0	2	2,314.11	199	219	TRUE	
SNU216_PC3_02	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	5	0.03%	10.70%	TAPTLSPEHWK	K	A	86.10%	2.22	0.148	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	8	0.05%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.47	0.383	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	8	0.05%	5.81%	AKTQTPPVSPAPQPTEERLPSSPVYEDAASFI	R	A	95.00%	3.54	0.384	0	0	0	2	2	3,505.69	360	391	TRUE	
SNU216_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	8	0.05%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.06	0.454	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC3_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	4	5	8	0.05%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	5.46	0.488	0	0	2	0	2	3,306.56	362	391	TRUE	
SNU216_PC3_02	FLN29 gene product	IPI00009146	64,840.60	99.80%	2	2	2	0.01%	4.64%	ALPSLNTGSSSPR	R	G	95.00%	2.51	0.264	0	1	0	0	2	1,366.64	317	329	TRUE	
SNU216_PC3_02	FLN29 gene product	IPI00009146	64,840.60	99.80%	2	2	2	0.01%	4.64%	LDSQPQETSPELPR	R	R	95.00%	3.17	0.379	0	1	0	0	2	1,676.75	407	420	TRUE	
SNU216_PC3_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	4	0.03%	8.45%	DLSPTLIDNSAAK	R	Q	95.00%	2.53	0.458	0	2	0	0	2	1,424.67	486	498	TRUE	
SNU216_PC3_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	4	0.03%	8.45%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.19	0.336	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC3_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	4	0.03%	8.45%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	3.88	0.451	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC3_02	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,088.20	99.00%	2	3	3	0.02%	6.22%	RRTSDPSAAVNHVSSTTSLGENYEDDDLVN	R	K	80.70%	6.33	0.0003	0	0	0	1	2	4,018.76	21	56	TRUE	
SNU216_PC3_02	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,088.20	99.00%	2	3	3	0.02%	6.22%	RTSDPSAAVNHVSSTTSLGENYEDDDLVNS	R	K	95.00%	4.98	0.0777	0	0	1	1	2	3,862.66	22	56	TRUE	
SNU216_PC3_02	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	98.90%	1	2	2	0.01%	3.63%	TAMRVSPHHPAPTPNPR	R	A	95.00%	3.11	0.314	0	0	1	1	2	1,945.92	234	250	TRUE	
SNU216_PC3_02	insulin-like growth factor 2 mRNA binding protein	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	1	2	0.01%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	2.66	0.436	0	2	0	0	2	1,980.90	152	168	TRUE	
SNU216_PC3_02	Histone deacetylase 2	IPI00289601	55,365.50	100.00%	1	2	7	0.04%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGEI	R	I	95.00%	5.41	0.561	0	0	3	4	2	3,681.55	373	405	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	Mid-1-related chloride channel 4	IPI00045511,IPI00103756,IP	62,024.50	99.90%	1	1	1	0.01%	5.19%	EHPTVVPSHKSPVLDTKPK	R	E	95.00%	3.33	0.406	0	0	1	0	2	2,176.12	454	472	TRUE	
SNU216_PC3_02	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.88	0.302	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216_PC3_02	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	2	0.01%	2.43%	RSPPADAIPK	R	S	81.60%	2.17	0.188	0	1	0	0	2	1,131.56	10	19	TRUE	
SNU216_PC3_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	99.10%	2	2	2	0.01%	3.92%	LPEASQSPLVLK	R	Q	82.00%	1.81	0.244	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216_PC3_02	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	99.10%	2	2	2	0.01%	3.92%	VAPVINNGSPTILGKR	K	S	95.00%	2.75	0.278	0	0	1	0	2	1,715.92	568	583	TRUE	
SNU216_PC3_02	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	3	3	0.02%	7.48%	GLNTSQESDDDILDESSSPEGTQK	R	V	95.00%	4.57	0.574	0	1	0	0	2	2,632.08	223	246	TRUE	
SNU216_PC3_02	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	3	3	0.02%	7.48%	HQSFGAAVLSR	R	E	95.00%	2.11	0.25	0	1	0	0	2	1,252.58	105	115	TRUE	
SNU216_PC3_02	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	100.00%	3	3	3	0.02%	7.48%	LQALAEEPSQPHTRSPAK	K	N	95.00%	3.63	0.286	0	0	1	0	2	2,039.99	177	194	TRUE	
SNU216_PC3_02	Isoform 1 of DNA replication licensing factor MCI	IPI00299904	81,309.00	100.00%	1	1	1	0.01%	2.78%	SRDPGMVRSPQNQYPAELMR	R	R	95.00%	2.89	0.204	0	0	1	0	2	2,412.10	113	132	TRUE	
SNU216_PC3_02	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	1	1	1	0.01%	7.19%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	3.4	0.259	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216_PC3_02	THO complex subunit 1	IPI00305374	75,668.80	99.90%	1	1	1	0.01%	3.50%	TGEDEDEEDNDALLKENESPDVR	K	R	95.00%	3.81	0.285	0	0	1	0	2	2,699.08	542	564	TRUE	
SNU216_PC3_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	2.59	0.375	0	1	0	0	2	1,529.66	311	325	TRUE	
SNU216_PC3_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	4.54	0.501	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216_PC3_02	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	3	4	0.03%	5.65%	AGGSPASYHGSTSPR	K	V	95.00%	2.82	0.475	0	2	1	0	2	1,511.63	189	203	TRUE	
SNU216_PC3_02	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	3	4	0.03%	5.65%	GSSQPNLSTSHSEQEYGK	R	A	95.00%	3.51	0.418	0	0	1	0	2	2,015.83	171	188	TRUE	
SNU216_PC3_02	Isoform 1 of Epsin-4	IPI00291930,IPI00397519	68,260.50	99.90%	1	1	1	0.01%	2.72%	ASPDQNASTHTPQSSVK	K	T	95.00%	2.32	0.281	0	1	0	0	2	1,834.80	298	314	TRUE	
SNU216_PC3_02	Isoform 1 of Cleavage and polyadenylation specif	IPI00012998,IPI00030654,IP	63,472.50	100.00%	1	1	1	0.01%	1.81%	SRDRHDDYYR	R	E	87.80%	1.9	0.232	0	0	1	0	2	1,462.59	550	559	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	P	95.00%	2.88	0.401	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216_PC3_02	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.84	0.432	0	0	1	0	2	3,054.38	939	964	TRUE	
SNU216_PC3_02	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	99.90%	1	1	2	0.01%	3.12%	TTPPTQKPPSPPMSGK	R	G	95.00%	2.13	0.297	0	2	0	0	2	1,730.82	174	189	TRUE	
SNU216_PC3_02	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.70%	2	3	3	0.02%	9.23%	LPATAAEPEAAVISNGEH	R	-	94.70%	2.99	0.158	0	1	0	0	2	1,856.84	503	520	TRUE	
SNU216_PC3_02	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.70%	2	3	3	0.02%	9.23%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAK	R	K	95.00%	6.06	0.551	0	0	1	1	2	3,260.56	469	498	TRUE	
SNU216_PC3_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	6.11%	AAVVTSPPPTTAPHK	R	E	95.00%	2.68	0.449	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC3_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	6.11%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.71	0.471	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC3_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	6.11%	SRSPGSPVGEGTGSPPK	K	W	95.00%	2.02	0.306	0	1	0	0	2	1,676.76	353	369	TRUE	
SNU216_PC3_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.90%	2	2	2	0.01%	3.16%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	2.86	0.389	0	1	0	0	2	1,912.86	582	599	TRUE	
SNU216_PC3_02	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.90%	2	2	2	0.01%	3.16%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.99	0.38	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216_PC3_02	EH-domain-containing protein 1	IPI00017184	60,629.10	100.00%	1	2	3	0.02%	3.37%	DKPTYDEIFYTLSPVNGK	K	I	95.00%	3.78	0.447	0	2	1	0	2	2,167.00	444	461	TRUE	
SNU216_PC3_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.91	0.362	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC3_02	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	100.00%	2	2	2	0.01%	5.44%	EKGSETDSAQDQPVK	K	M	95.00%	3.24	0.423	0	1	0	0	2	1,698.72	66	80	TRUE	
SNU216_PC3_02	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	100.00%	2	2	2	0.01%	5.44%	GGLSPANDTGAK	R	K	95.00%	2.03	0.167	1	0	0	0	2	1,167.50	44	55	TRUE	
SNU216_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	7	7	0.04%	12.50%	AGAAAGDSDEESRADDK	R	G	95.00%	3.18	0.447	0	1	0	0	2	1,744.67	330	346	TRUE	
SNU216_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	7	7	0.04%	12.50%	AGAAAGDSDEESRADDKGVMDYYLK	R	Y	95.00%	4.17	0.426	0	0	0	1	2	2,714.13	330	354	TRUE	
SNU216_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	7	7	0.04%	12.50%	GGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	6.74	0.587	0	1	1	0	2	2,410.07	505	530	TRUE	
SNU216_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	7	7	0.04%	12.50%	GGAPDPSPGATATPGAPAQPSSPDARR	R	N	95.00%	5.46	0.493	0	0	1	0	2	2,566.17	505	531	TRUE	
SNU216_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	7	7	0.04%	12.50%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	4.17	0.336	0	0	1	0	2	2,210.89	537	555	TRUE	
SNU216_PC3_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	7	7	0.04%	12.50%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	5.32	0.431	0	0	1	0	2	2,665.24	503	530	TRUE	
SNU216_PC3_02	Golgi resident protein GCP60	IPI00009315	60,461.50	99.80%	1	1	1	0.01%	4.55%	THTDSSEKELEPEAAEEALENGPK	K	E	95.00%	3.25	0.252	0	0	1	0	2	2,691.17	339	362	TRUE	
SNU216_PC3_02	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	4	4	0.03%	5.24%	NQGIEGSPGGR	R	V	95.00%	1.87	0.293	0	1	0	0	2	1,151.48	187	197	TRUE	
SNU216_PC3_02	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	4	4	0.03%	5.24%	SPPTQVAISSDSAR	R	K	95.00%	3.11	0.465	0	1	0	0	2	1,495.68	201	214	TRUE	
SNU216_PC3_02	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	100.00%	3	4	4	0.03%	5.24%	VTRSPPTQVAISSDSAR	R	K	95.00%	3.45	0.204	0	1	1	0	2	1,851.90	198	214	TRUE	
SNU216_PC3_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	5.48%	RHSSDINHLVTQGR	R	E	95.00%	2.63	0.268	0	0	0	1	2	1,699.80	481	494	TRUE	
SNU216_PC3_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	5.48%	TISDGTISASK	R	Q	95.00%	2.01	0.374	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216_PC3_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	5.48%	TISDGTISASKQESGK	R	M	95.00%	2.64	0.397	0	1	0	0	2	1,688.77	293	308	TRUE	
SNU216_PC3_02	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	4	0.03%	10.40%	GLGPPSPPAPPR	R	G	95.00%	2.13	0.41	0	1	0	0	2	1,222.60	90	101	TRUE	
SNU216_PC3_02	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	4	0.03%	10.40%	GPAGEAGASPPVR	R	R	92.90%	2.15	0.203	0	1	0	0	2	1,245.56	102	114	TRUE	
SNU216_PC3_02	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	4	0.03%	10.40%	GPAGEAGASPPVRR	R	V	80.80%	2.47	0.116	0	1	0	0	2	1,401.66	102	115	TRUE	
SNU216_PC3_02	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	4	0.03%	10.40%	KPSLVSDLPWEGAAPQSPSFSGSEDSGSPK	K	H	94.80%	5.16	0.0784	0	0	1	0	2	3,124.42	206	235	TRUE	
SNU216_PC3_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	99.90%	2	2	3	0.02%	2.91%	ILQEKLDQPVSAPPSPR	R	D	95.00%	2.49	0.366	0	1	0	0	2	2,034.97	230	246	TRUE	
SNU216_PC3_02	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	99.90%	2	2	3	0.02%	2.91%	LDQPVSAPPSPR	K	D	95.00%	2.43	0.334	0	2	0	0	2	1,343.64	235	246	TRUE	
SNU216_PC3_02	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	2	3	3	0.02%	6.60%	EESLVEELSPASEK	R	K	95.00%	2.83	0.265	0	1	0	0	2	1,626.71	418	431	TRUE	
SNU216_PC3_02	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	2	3	3	0.02%	6.60%	SRLSPAGEMKPMPLSEGK	K	S	95.00%	3.33	0.371	0	1	1	0	2	1,994.94	441	458	TRUE	
SNU216_PC3_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.70%	1	1	1	0.01%	4.20%	AHAWPSPYKDYEVKK	R	E	93.60%	3.03	0.149	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216_PC3_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	99.80%	1	1	1	0.01%	6.30%	GVTIPVRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.32	0.312	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	12.00%	FYDSNTVK	K	Q	83.20%	1.81	0.223	0	1	0	0	2	1,053.43	129	136	TRUE	
SNU216_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	12.00%	GTEAPAVVTEEEDDDEETAPPVIAPRPDHTK	K	S	95.00%	5.9	0.451	0	0	1	1	2	3,395.52	161	191	TRUE	
SNU216_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	12.00%	QKYLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.68	0.368	0	0	1	0	2	2,673.30	137	160	TRUE	
SNU216_PC3_02	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	12.00%	YLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.78	0.433	0	1	0	0	2	2,417.14	139	160	TRUE	
SNU216_PC3_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.5	0.228	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC3_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	4.12	0.363	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216_PC3_02	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.80%	1	2	2	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.4	0.35	0	1	1	0	2	1,498.67	12	23	TRUE	
SNU216_PC3_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	5	0.03%	11.70%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	4.17	0.247	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216_PC3_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	5	0.03%	11.70%	DLTHSDSESSLHMSDR	R	Q	95.00%	3.26	0.325	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216_PC3_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	5	0.03%	11.70%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	4.62	0.479	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216_PC3_02	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	5	5	0.03%	11.70%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	4.39	0.0268	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216_PC3_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	2	4	4	0.03%	10.30%	GGSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	3	0.287	0	0	1	1	2	2,698.25	217	240	TRUE	
SNU216_PC3_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	2	4	4	0.03%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	3.84	0.436	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.81	0.46	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	EKVSSIDLEIDSLSSLLDDMTKNDPFK	R	A	95.00%	6.65	0.48	0	0	1	0	2	3,119.47	149	175	TRUE	
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.52	0.32	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.42	0.251	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	4.77	0.634	0	1	0	0	2	1,912.96	264	282	TRUE	
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.65	0.418	0	0	1	0	2	2,677.24	306	330	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	QHPVPPPAQNQNQVRSPGAPGPLTLK	K	E	95.00%	3.01	0.301	0	0	1	0	2	2,808.43	339	364	TRUE	
SNU216_PC3_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	8	9	9	0.06%	19.00%	SPGAPGPLTLK	R	E	95.00%	1.73	0.36	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216_PC3_02	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	2	2	0.01%	3.66%	KTGSPGSPGAGGVQSTAK	K	K	83.10%	2.22	0.261	0	1	0	0	2	1,666.78	440	457	TRUE	
SNU216_PC3_02	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	100.00%	2	2	2	0.01%	3.66%	TGSPGSPGAGGVQSTAK	K	K	95.00%	2.17	0.35	0	1	0	0	2	1,538.68	441	457	TRUE	
SNU216_PC3_02	Isoform 1 of REST corepressor 3	IPI00183535	55,582.00	99.80%	2	2	3	0.02%	10.30%	HNQGDSDDDVEETHPMDGNDSDYDPKK	R	E	95.00%	3.73	0.444	0	0	2	0	2	3,140.17	151	177	TRUE	
SNU216_PC3_02	Isoform 1 of REST corepressor 3	IPI00183535	55,582.00	99.80%	2	2	3	0.02%	10.30%	SASNVPSGKSTDEEEEAQTPQAPR	K	T	95.00%	3.83	0.326	0	0	1	0	2	2,595.12	366	389	TRUE	
SNU216_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	2	4	5	0.03%	17.60%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.68	0.522	0	0	3	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	2	4	5	0.03%	17.60%	HASPILPITEFSDIPR	K	R	95.00%	3.31	0.298	0	1	1	0	2	1,872.93	304	319	TRUE	
SNU216_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	2	4	5	0.03%	17.60%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	5.02	0.338	0	1	2	0	2	2,623.08	174	195	TRUE	
SNU216_PC3_02	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	2	4	5	0.03%	17.60%	SSTPLPTISSSAENTR	R	Q	83.90%	2.76	0.0938	0	1	0	0	2	1,727.78	158	173	FALSE	IPI00216230
SNU216_PC3_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.52	0.401	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC3_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	99.80%	2	2	2	0.01%	3.05%	DGQDAIAQSPEKESK	K	D	95.00%	3.55	0.335	0	1	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC3_02	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	99.80%	2	2	2	0.01%	3.05%	ISSKSPGHMVILDQTK	R	G	95.00%	3.75	0.476	0	0	1	0	2	1,820.90	549	564	TRUE	
SNU216_PC3_02	Absent in melanoma 1 protein	REVERSE_IPI00294840-R	188,677.10	99.20%	2	2	2	0.01%	2.44%	ESVDPESYIVVKGPR	K	P	84.50%	2.46	0.198	0	0	1	0	2	1,754.84	690	704	TRUE	
SNU216_PC3_02	Absent in melanoma 1 protein	REVERSE_IPI00294840-R	188,677.10	99.20%	2	2	2	0.01%	2.44%	SVTNLIIHNQDYQTGGKIDLVLNPKLK	K	S	95.00%	3.16	0.305	0	0	1	0	2	3,101.64	16	42	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	AGLGSPERPPKTSPGSPR	R	L	95.00%	2.5	0.294	0	1	0	0	2	2,030.85	54	71	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	2.75	0.351	0	1	0	0	2	2,635.20	31	53	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	LGGLRPESPESLTSVSR	R	T	95.00%	3.16	0.365	0	1	1	0	2	1,864.92	11	27	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	5.81	0.58	0	2	2	0	2	2,383.10	72	94	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	LQQGAGLESPQGQPEPGAASPQRQQDLHI	R	Q	95.00%	5.32	0.439	0	0	1	1	2	3,714.76	72	105	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	QPEYSPESPR	R	C	95.00%	2.24	0.293	0	1	0	0	2	1,269.51	106	115	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	3.75	0.323	0	1	1	0	2	2,601.17	95	115	TRUE	
SNU216_PC3_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	12	14	0.09%	28.60%	RALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.47	0.383	0	0	0	1	2	2,791.30	30	53	TRUE	
SNU216_PC3_02	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	3	3	3	0.02%	5.00%	AVVVSPKEENK	R	A	95.00%	2.38	0.402	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216_PC3_02	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	3	3	3	0.02%	5.00%	AVVVSPKEENKAAEPPPPK	R	I	95.00%	3.39	0.454	0	0	1	0	2	2,067.05	336	354	TRUE	
SNU216_PC3_02	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	100.00%	3	3	3	0.02%	5.00%	KPSPQPSSPR	K	Q	95.00%	2.11	0.292	0	1	0	0	2	1,160.55	322	331	TRUE	
SNU216_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	6	7	0.04%	13.60%	DYDEEEQGYDSEKEK	R	K	95.00%	3.21	0.229	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	6	7	0.04%	13.60%	DYDEEEQGYDSEKEKK	R	E	95.00%	3.21	0.291	0	1	0	0	2	2,071.80	364	379	TRUE	
SNU216_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	6	7	0.04%	13.60%	EEKKPIETGSPK	K	T	95.00%	2.51	0.251	0	1	0	0	2	1,422.69	380	391	TRUE	
SNU216_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	6	7	0.04%	13.60%	KLSRSPSPR	R	R	94.70%	1.59	0.298	0	1	0	0	2	1,267.50	304	312	TRUE	
SNU216_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	6	7	0.04%	13.60%	LNHVAAGLVSPSLK	K	S	95.00%	2.68	0.407	0	1	0	0	2	1,485.78	138	151	TRUE	
SNU216_PC3_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	6	6	7	0.04%	13.60%	VNGDDHHEEDMDMSD	K	-	95.00%	2.69	0.509	0	2	0	0	2	1,825.57	410	424	TRUE	
SNU216_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.94%	ETESAPGSPR	K	A	95.00%	1.86	0.425	0	1	0	0	2	1,110.45	514	523	TRUE	
SNU216_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.94%	GLSASLPDLDSENWIEVK	K	K	95.00%	2.85	0.285	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.94%	HSSNPPLESHVGWVMDSR	R	E	95.00%	2.92	0.304	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.94%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	2.87	0.295	0	0	1	0	2	2,405.19	130	152	TRUE	
SNU216_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.94%	QHYQKETESAPGSPR	R	A	95.00%	2.43	0.305	0	1	0	0	2	1,874.75	509	523	TRUE	
SNU216_PC3_02	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	6	6	7	0.04%	7.94%	SLPTTVPESPNYR	R	N	95.00%	2.33	0.381	0	2	0	0	2	1,620.67	766	778	TRUE	
SNU216_PC3_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	5.35%	KRSVQEGENPDDGVR	R	G	95.00%	4.14	0.379	0	0	1	0	2	1,765.79	12	26	TRUE	
SNU216_PC3_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	5.35%	SVQEGENPDDGVRGSPPEDYR	R	L	95.00%	2.05	0.314	0	1	0	0	2	2,382.98	14	34	TRUE	
SNU216_PC3_02	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	2	3	3	0.02%	6.49%	ASGEMASAQYITAALR	R	D	95.00%	3.2	0.38	0	1	0	0	2	1,719.78	107	122	TRUE	
SNU216_PC3_02	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	100.00%	2	3	3	0.02%	6.49%	VNQQPNTSDKKSSPQK	K	E	95.00%	4.25	0.306	0	1	1	0	2	1,865.88	347	362	TRUE	
SNU216_PC3_02	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	3	3	0.02%	9.08%	AGGASPAASSTAQPPTQHR	R	L	95.00%	2.85	0.391	0	1	0	0	2	1,871.84	449	467	TRUE	
SNU216_PC3_02	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	3	3	0.02%	9.08%	KASPEPEGEAAGK	R	M	95.00%	3.17	0.391	0	1	0	0	2	1,350.59	382	394	TRUE	
SNU216_PC3_02	Interferon regulatory factor 2 binding protein 1 v	IPI00645608	61,688.10	100.00%	3	3	3	0.02%	9.08%	NVAEALGHSPKDPGGGGGPVR	K	A	95.00%	2.96	0.412	0	0	1	0	2	2,051.97	428	448	TRUE	
SNU216_PC3_02	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	2	3	4	0.03%	12.10%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	6.37	0.0774	0	1	2	0	2	2,812.17	391	415	TRUE	
SNU216_PC3_02	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	2	3	4	0.03%	12.10%	SSISSVLKDPDSNPYSLLDNTESDQTADTDA	K	R	90.20%	6.66	0.0073	0	0	0	1	2	4,400.89	463	502	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	APQTSSSPPPVR	R	R	91.00%	2.06	0.23	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	APQTSSSPPPVRR	R	G	95.00%	2.07	0.242	0	1	0	0	2	1,459.71	699	711	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	HRPSPPATPPPK	R	T	95.00%	2.35	0.407	0	1	0	0	2	1,441.64	394	405	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	KETESEAEDNLDDLEK	K	H	95.00%	3.63	0.32	0	1	0	0	2	1,944.80	879	894	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	85.00%	4.95	0.0603	0	0	1	0	2	2,871.38	772	797	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	KVELSESEEDKGGK	R	M	84.50%	2.18	0.188	0	1	0	0	2	1,614.73	454	467	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	RESPSPAPKPR	K	K	95.00%	2.83	0.312	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216_PC3_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	8	9	9	0.06%	11.90%	VPKPEPIPEPKEPSPEK	K	N	95.00%	4.88	0.487	0	1	1	0	2	1,977.99	247	263	TRUE	
SNU216_PC3_02	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	2	2	6	0.04%	6.29%	KTSSDDESEEDEDDLLQR	R	T	92.70%	3.82	0.0216	0	1	0	0	2	2,270.82	203	220	TRUE	
SNU216_PC3_02	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	100.00%	2	2	6	0.04%	6.29%	VQEHEDSGDSEVENEAK	R	G	95.00%	4.27	0.578	0	5	0	0	2	2,061.73	115	131	TRUE	
SNU216_PC3_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	0.55%	MKTPVQYSQQQNSPQK	K	H	95.00%	3.23	0.307	0	1	0	0	2	1,971.90	345	360	TRUE	
SNU216_PC3_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	0.55%	TPVQYSQQQNSPQK	K	H	95.00%	3.61	0.402	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC3_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	0.55%	TPVQYSQQQNSPQKHK	K	N	95.00%	3.56	0.31	0	0	1	0	2	1,977.92	347	362	TRUE	
SNU216_PC3_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	2	3	0.02%	2.67%	KMEESDEEAVQAK	R	V	95.00%	3.72	0.317	0	2	0	0	2	1,573.65	688	700	TRUE	
SNU216_PC3_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	2	2	3	0.02%	2.67%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.23	0.462	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216_PC3_02	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	99.80%	1	2	3	0.02%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	5.21	0.488	0	1	2	0	2	2,661.12	164	187	TRUE	
SNU216_PC3_02	Pre-mRNA-splicing factor PRP17	IPI00026307	65,522.00	98.90%	1	1	1	0.01%	3.63%	SPSSKPSLAVAVDSAPEVAVK	K	E	95.00%	3.03	0.294	0	0	1	0	2	2,119.07	43	63	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	EISDDEAEEEK	K	G	95.00%	2.87	0.35	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	EISDDEAEEEKGEK	K	E	95.00%	3.16	0.384	0	1	0	0	2	1,687.66	223	236	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	EKEISDDEAEEEK	R	G	95.00%	2.97	0.38	0	1	1	0	2	1,630.64	221	233	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	3.66	0.391	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	EREKEISDDEAEEEK	K	G	95.00%	2.51	0.292	0	1	0	0	2	1,915.78	219	233	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	2.88	0.425	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.75	0.51	0	2	2	0	2	1,817.70	249	264	TRUE	
SNU216_PC3_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	13	18	0.12%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.61	0.356	0	3	2	1	2	1,945.79	249	265	TRUE	
SNU216_PC3_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	2	2	2	0.01%	6.38%	ALASEKSPTADAKPAPK	K	R	95.00%	3.64	0.383	0	0	1	0	2	1,761.88	280	296	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	2	2	2	0.01%	6.38%	IPSKEEEADMSSPTQR	K	T	95.00%	3.24	0.409	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.40%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	3.6	0.277	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.40%	RSPVSTRPLPSASQK	R	A	91.90%	1.97	0.238	0	1	0	0	2	1,690.86	215	229	TRUE	
SNU216_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.40%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	4.21	0.411	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC3_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	4	4	4	0.03%	10.40%	SSPQLDPLR	R	K	95.00%	2.22	0.351	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	4	4	0.03%	8.37%	AIGSTSKPQESPK	R	G	95.00%	2.53	0.331	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	4	4	0.03%	8.37%	AIGSTSKPQESPKGK	R	R	95.00%	2.77	0.247	0	0	1	0	2	1,594.78	231	245	TRUE	
SNU216_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	4	4	0.03%	8.37%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.86	0.326	0	1	0	0	2	1,741.93	256	271	TRUE	
SNU216_PC3_02	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	4	4	4	0.03%	8.37%	TKPTQAAGPSSPQKPPTPEETK	K	A	95.00%	2.76	0.321	0	1	0	0	2	2,357.14	437	458	TRUE	
SNU216_PC3_02	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.32	0.303	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216_PC3_02	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	2	2	0.01%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	6.39	0.545	0	0	1	0	2	2,776.47	327	353	TRUE	
SNU216_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	13	20	0.13%	7.24%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.46	0.387	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	13	20	0.13%	7.24%	EELMSSDLEETAGSTSIPKR	K	K	95.00%	4.56	0	0	2	0	0	2	2,260.01	515	534	TRUE	
SNU216_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	13	20	0.13%	7.24%	EEPVSSGPEEAVGK	K	S	95.00%	3.18	0.516	0	3	0	0	2	1,574.60	565	578	TRUE	
SNU216_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	13	20	0.13%	7.24%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.79	0.336	0	1	1	0	2	1,936.80	562	578	TRUE	
SNU216_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	13	20	0.13%	7.24%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	4.66	0.442	0	3	2	0	2	1,984.93	561	578	TRUE	
SNU216_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	13	20	0.13%	7.24%	KSFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.52	0	0	2	0	0	2	2,681.23	510	533	TRUE	
SNU216_PC3_02	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	13	20	0.13%	7.24%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.77	0	0	4	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC3_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.52	0.512	0	1	1	0	2	2,873.37	59	85	TRUE	
SNU216_PC3_02	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	95.00%	4.1	0.0308	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216_PC3_02	DNA polymerase alpha subunit B	IPI00290272	65,948.80	99.80%	2	3	3	0.02%	4.18%	SPHQLLSPSSFSPSATPSQK	R	Y	95.00%	4.66	0.416	0	1	1	0	2	2,163.01	141	160	TRUE	
SNU216_PC3_02	DNA polymerase alpha subunit B	IPI00290272	65,948.80	99.80%	2	3	3	0.02%	4.18%	SVSTRSPHQLLSPSSFSPSATPSQK	R	Y	95.00%	4.98	0.351	0	0	1	0	2	2,693.29	136	160	TRUE	
SNU216_PC3_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	GADNDGSGSESGYTTPK	K	K	95.00%	3.98	0.467	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC3_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	NDSWGSFDLR	R	A	95.00%	2.21	0.361	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC3_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	5.61%	RTSPQVLGSILK	K	S	93.10%	2.82	0.119	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC3_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.03%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	7.11	0.588	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216_PC3_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.03%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.46	0.422	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216_PC3_02	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	4	4	0.03%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	94.10%	4.63	0.0882	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216_PC3_02	insulin-like growth factor 2 mRNA binding protein	IPI00658000,IPI00746216	64,160.50	100.00%	1	1	1	0.01%	2.25%	DQTPDENDQVVVK	R	I	95.00%	2.74	0.354	0	1	0	0	2	1,566.67	528	540	TRUE	
SNU216_PC3_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	2	2	0.01%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	3.46	0.262	0	0	1	0	2	1,666.81	31	44	TRUE	
SNU216_PC3_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	2	2	0.01%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.27	0.289	0	0	1	0	2	1,911.83	45	62	TRUE	
SNU216_PC3_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	2	4	4	0.03%	1.75%	KRVSVELTNSLFK	R	H	95.00%	3.14	0.341	0	1	1	0	2	1,600.85	660	672	TRUE	
SNU216_PC3_02	Junction plakoglobin	IPI00554711	81,499.50	100.00%	2	4	4	0.03%	1.75%	RVSVELTNSLFK	K	H	95.00%	3.09	0.187	0	1	1	0	2	1,472.75	661	672	TRUE	
SNU216_PC3_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	99.90%	2	3	3	0.02%	8.44%	EVKAEEKSPISINVK	R	T	95.00%	3.15	0.458	0	1	1	0	2	1,750.90	118	132	TRUE	
SNU216_PC3_02	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	99.90%	2	3	3	0.02%	8.44%	QQASKSPYNGVR	R	K	95.00%	3.26	0.235	0	1	0	0	2	1,414.65	142	153	TRUE	
SNU216_PC3_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	8.71%	KADGEDAGAESNEEAPGEPSAGSSEEAPGE	R	S	95.00%	5.13	0.112	0	0	1	0	2	4,208.68	93	135	TRUE	
SNU216_PC3_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	8.71%	VNDAEPGSPEAPQGK	K	R	95.00%	2.99	0.413	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216_PC3_02	Histone H1.4	IPI00217467	21,735.70	100.00%	1	1	1	0.01%	3.67%	KAPKSPAK	K	A	95.00%	2.04	0.304	0	1	0	0	2	906.481	182	189	TRUE	
SNU216_PC3_02	debranching enzyme homolog 1	IPI00305545	61,556.10	99.80%	1	1	1	0.01%	2.02%	RLSDEHEPEQR	K	K	95.00%	2.22	0.228	0	1	0	0	2	1,475.63	512	522	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	99.80%	2	2	2	0.01%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI	K	H	95.00%	4.65	0.247	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216_PC3_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	99.80%	2	2	2	0.01%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.72	0.354	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC4_02	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEK	K	D	95.00%	3.18	0.283	0	1	0	0	2	1,508.74	197	210	TRUE	
SNU216_PC4_02	serum response factor binding protein 1	IPI00304493	48,635.30	99.80%	2	2	2	0.01%	5.59%	AVTIANSPSKPSEKDSVVSLESQK	K	T	95.00%	3.95	0.386	0	0	1	0	2	2,581.28	197	220	TRUE	
SNU216_PC4_02	plectin 1 isoform 6	IPI00186711	531,783.90	99.90%	3	3	3	0.02%	1.26%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.42	0.345	0	0	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC4_02	plectin 1 isoform 6	IPI00186711	531,783.90	99.90%	3	3	3	0.02%	1.26%	GYYSPYSVSGSGSTAGSR	K	T	89.20%	3.6	0.0382	0	1	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216_PC4_02	plectin 1 isoform 6	IPI00186711	531,783.90	99.90%	3	3	3	0.02%	1.26%	SSSVGSSSSYPISPAVSR	R	T	90.30%	3.81	0.0409	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC4_02	Hypothetical protein FLJ25333	REVERSE_IPI00744669-R	47,727.50	98.90%	1	1	1	0.01%	4.35%	FGSQYENQMTELEGWIQK	K	E	95.00%	2.87	0.175	0	0	1	0	2	2,363.93	43	60	TRUE	
SNU216_PC4_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	6.89%	VFDDESDEKEDEEYADEK	K	G	95.00%	2.51	0.374	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216_PC4_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	6.89%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.17	0.494	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC4_02	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	3	3	3	0.02%	6.89%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.33	0.36	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216_PC4_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	3	3	3	0.02%	5.24%	KAEPSEVDMNSPK	K	S	95.00%	3.11	0.292	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216_PC4_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	3	3	3	0.02%	5.24%	KKEEPSQNDISPK	K	T	95.00%	2.97	0.249	0	0	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC4_02	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	3	3	3	0.02%	5.24%	NEEPSEEEIDAPKPK	K	K	95.00%	3.61	0.295	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.80%	2	2	2	0.01%	2.95%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4	0.477	0	1	0	0	2	2,113.87	206	224	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.80%	2	2	2	0.01%	2.95%	QSFDDNDSEELEDKDSK	K	S	95.00%	3.99	0.396	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216_PC4_02	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	1	1	2	0.01%	6.31%	VEAKEESEESDEDMGFGLFD	K	-	95.00%	3.84	0.248	0	2	0	0	2	2,342.89	298	317	TRUE	
SNU216_PC4_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.70%	2	2	2	0.01%	2.76%	EQSEVSVSPR	K	A	94.80%	1.93	0.244	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216_PC4_02	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.70%	2	2	2	0.01%	2.76%	KKEQSEVSVSPR	K	A	95.00%	2.12	0.234	0	1	0	0	2	1,453.70	23	34	TRUE	
SNU216_PC4_02	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	2	2	2	0.01%	3.77%	GKLEAIITPPPAK	K	K	95.00%	2.53	0.329	0	1	0	0	2	1,414.77	122	134	TRUE	
SNU216_PC4_02	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	2	2	2	0.01%	3.77%	GKLEAIITPPPAKK	K	A	95.00%	2.72	0.162	0	1	0	0	2	1,542.87	122	135	TRUE	
SNU216_PC4_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	6.11%	AAVVTSPPPTTAPHK	R	E	95.00%	2.5	0.382	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC4_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	6.11%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.38	0.472	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC4_02	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	6.11%	SRSPGSPVGEGTGSPPK	K	W	95.00%	2.48	0.271	0	1	0	0	2	1,676.76	353	369	TRUE	
SNU216_PC4_02	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	3	5	0.03%	16.00%	LSMEDSKSPPPK	K	A	95.00%	3.04	0.514	0	3	0	0	2	1,395.62	127	138	TRUE	
SNU216_PC4_02	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	3	5	0.03%	16.00%	LSMEDSKSPPPKATEEK	K	K	83.90%	2.17	0.189	0	1	0	0	2	1,953.89	127	143	TRUE	
SNU216_PC4_02	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	3	5	0.03%	16.00%	RTFQQIQEEEDDDYPGSYSPQDPSAGPLLTE	K	A	87.70%	6.52	0.0216	0	0	1	0	2	4,075.83	148	182	TRUE	
SNU216_PC4_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	3	3	3	0.02%	5.53%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.13	0.403	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC4_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	3	3	3	0.02%	5.53%	KTMQGEGPQLLLSEAVSR	R	A	82.80%	2.91	0.222	0	0	0	1	2	2,103.95	1046	1063	TRUE	
SNU216_PC4_02	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	3	3	3	0.02%	5.53%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.4	0.435	0	0	1	0	2	3,176.48	936	963	TRUE	
SNU216_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	5	0.03%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.08	0.41	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	5	0.03%	15.20%	NEGSESAPEGQAQQR	K	R	95.00%	2.55	0.453	0	2	0	0	2	1,747.63	170	184	TRUE	
SNU216_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	5	0.03%	15.20%	NYQQNYQNSESGEK	R	N	95.00%	2.47	0.189	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216_PC4_02	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	5	0.03%	15.20%	NYQQNYQNSESGEKNEGSESAPEGQAQQ	R	R	95.00%	2.83	0.207	0	0	0	1	2	3,337.36	156	184	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	4.39	0.428	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	5.17	0.0946	0	1	1	0	2	3,118.29	334	362	TRUE	
SNU216_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	DLHQGIEAASDEEDLR	R	W	95.00%	2.55	0.328	0	1	0	0	2	1,877.79	267	282	TRUE	
SNU216_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	3.35	0.345	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216_PC4_02	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	5	8	8	0.05%	15.10%	GGRSPDEVTLTSIVPTR	K	D	95.00%	3.06	0.346	0	1	1	0	2	1,864.92	317	333	TRUE	
SNU216_PC4_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	6	0.04%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.61	0.383	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216_PC4_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	6	0.04%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE	K	G	95.00%	5.79	0.438	0	0	1	2	2	3,462.56	246	276	TRUE	
SNU216_PC4_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	6	0.04%	14.80%	PKPSSSPVIFAGGQDR	R	Y	95.00%	2.51	0.275	0	1	0	0	2	1,722.82	184	199	TRUE	
SNU216_PC4_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	4	5	6	0.04%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	3.15	0.433	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	4	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.76	0.33	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	4	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVIQ	K	H	95.00%	5.21	0.387	0	0	0	2	2	4,001.82	363	400	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	4	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.58	0.279	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC4_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	93.10%	5.89	0.0425	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216_PC4_02	Transaldolase	IPI00744692	37,541.70	100.00%	1	1	1	0.01%	2.67%	TIVMGASFR	K	N	92.70%	1.76	0.295	0	1	0	0	2	1,061.49	231	239	TRUE	
SNU216_PC4_02	ETS-related transcription factor Elf-4	IPI00170744	70,731.50	98.80%	1	1	1	0.01%	2.26%	AGDTSDQEGHSLEEK	R	A	95.00%	2.78	0.3	0	1	0	0	2	1,682.65	147	161	TRUE	
SNU216_PC4_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	4	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.19	0.519	0	2	0	0	2	1,796.71	490	504	TRUE	
SNU216_PC4_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	4	0.02%	2.86%	ERDHSPTPSVFNSDEER	K	Y	95.00%	2.64	0.344	0	1	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC4_02	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	AGGSPASYHGSTSPR	K	V	95.00%	2.88	0.517	0	1	0	0	2	1,511.63	189	203	TRUE	
SNU216_PC4_02	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	GSSQPNLSTSHSEQEYGK	R	A	95.00%	3.4	0.479	0	1	0	0	2	2,015.83	171	188	TRUE	
SNU216_PC4_02	Matrin-3	IPI00017297	94,626.70	99.80%	1	2	2	0.01%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.38	0.424	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216_PC4_02	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	3	3	3	0.02%	17.30%	ARSNENLDKIDMSLDDIIK	K	L	95.00%	5.07	0.382	0	0	1	0	2	2,270.07	21	39	TRUE	
SNU216_PC4_02	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	3	3	3	0.02%	17.30%	GISPMNRPPLSDKNIEQVFPVLK	K	R	95.00%	3.59	0.254	0	0	1	0	2	2,723.36	116	138	TRUE	
SNU216_PC4_02	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	3	3	3	0.02%	17.30%	LVGATATSSPPPK	K	A	95.00%	2.36	0.205	0	1	0	0	2	1,305.65	8	20	TRUE	
SNU216_PC4_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	4	0.02%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.27	0.582	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC4_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	4	0.02%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	3.49	0.501	0	2	0	0	2	2,389.89	235	254	TRUE	
SNU216_PC4_02	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.30%	2	2	2	0.01%	3.44%	ANSWQLVETPEKR	K	K	86.30%	2.36	0.155	0	1	0	0	2	1,637.77	904	916	TRUE	
SNU216_PC4_02	Isoform 1 of Disks large-associated protein 4	IPI00007138,IPI00220581,IP	107,582.10	99.30%	2	2	2	0.01%	3.44%	QNSATESADSIEIYVPEAQTR	R	-	95.00%	5.34	0.558	0	1	0	0	2	2,389.06	968	988	TRUE	
SNU216_PC4_02	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3	0.393	0	1	0	0	2	1,936.80	562	578	TRUE	
SNU216_PC4_02	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.58	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC4_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	AEEDEILNRSPR	K	N	95.00%	2.99	0.399	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC4_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	QKSDAEEDGGTVSQEEEDR	K	K	92.00%	2.7	0.193	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216_PC4_02	Isoform DFF45 of DNA fragmentation factor alpha	IPI00010882	36,522.50	99.80%	2	2	2	0.01%	5.14%	ASPPGDLQNPK	K	R	95.00%	2.05	0.268	0	1	0	0	2	1,203.54	314	324	TRUE	
SNU216_PC4_02	Isoform DFF45 of DNA fragmentation factor alpha	IPI00010882	36,522.50	99.80%	2	2	2	0.01%	5.14%	SISASKASPPGDLQNPK	R	R	95.00%	3.86	0.35	0	1	0	0	2	1,776.85	308	324	TRUE	
SNU216_PC4_02	Vacuolar sorting protein 4a	IPI00411356	48,899.30	99.80%	2	2	2	0.01%	4.81%	ENQSEGKGSDSDSEGDNPEK	K	K	95.00%	2.3	0.253	0	1	0	0	2	2,268.78	87	106	TRUE	
SNU216_PC4_02	Vacuolar sorting protein 4a	IPI00411356	48,899.30	99.80%	2	2	2	0.01%	4.81%	ENQSEGKGSDSDSEGDNPEKK	K	K	95.00%	2.18	0.248	0	0	1	0	2	2,396.88	87	107	TRUE	
SNU216_PC4_02	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	5	0.03%	15.00%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	5.02	0.646	0	2	2	0	2	2,575.01	239	266	TRUE	
SNU216_PC4_02	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	2	3	5	0.03%	15.00%	NMGGPYGGGNYGPGGSGGSGGYGGR	R	S	95.00%	4.82	0.01	0	1	0	0	2	2,269.87	326	350	TRUE	
SNU216_PC4_02	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	1	1	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	3.05	0.421	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	EESDGEYDEFGR	R	K	95.00%	3	0.588	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	2.79	0.382	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	3.98	0.286	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.8	0.594	0	0	1	1	2	2,419.90	147	166	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	EVEDKESEGEEEDEDEDLSKYK	K	L	95.00%	4.26	0.37	0	0	1	0	2	2,711.06	147	168	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	SRSPESQVIGENTK	R	Q	95.00%	4.21	0.544	0	2	0	0	2	1,611.74	305	318	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	SRSPESQVIGENTKQP	R	-	95.00%	3.77	0.39	0	1	0	0	2	1,836.85	305	320	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	TRSRSPESQVIGENTK	R	Q	95.00%	2.87	0.246	0	0	1	0	2	1,948.85	303	318	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	YNLDASEEEDSNK	K	K	95.00%	2.77	0.459	0	1	0	0	2	1,593.60	183	195	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	YNLDASEEEDSNKK	K	K	95.00%	2.73	0.335	0	1	0	0	2	1,721.69	183	196	TRUE	
SNU216_PC4_02	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	11	12	13	0.08%	23.70%	YNLDASEEEDSNKKK	K	S	95.00%	2.75	0.294	0	1	0	0	2	1,849.79	183	197	TRUE	
SNU216_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	9.72%	RPHTPTPGIYMGR	K	P	95.00%	3.59	0.506	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	9.72%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.51	0.278	0	0	0	1	2	2,311.08	198	217	TRUE	
SNU216_PC4_02	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	100.00%	3	3	3	0.02%	9.72%	SPSPYYSR	R	D	95.00%	1.61	0.38	1	0	0	0	2	1,116.38	264	271	TRUE	IPI00013891
SNU216_PC4_02	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	100.00%	3	3	3	0.02%	5.26%	ASSASVPAVGASAEGTR	R	R	95.00%	3.53	0.562	0	1	0	0	2	1,597.72	167	183	TRUE	
SNU216_PC4_02	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	100.00%	3	3	3	0.02%	5.26%	ASSASVPAVGASAEGTRR	R	D	95.00%	2.81	0.347	0	0	1	0	2	1,753.82	167	184	TRUE	
SNU216_PC4_02	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	100.00%	3	3	3	0.02%	5.26%	LGSYSGPTSVSR	R	Q	95.00%	2.27	0.307	0	1	0	0	2	1,290.57	187	198	TRUE	
SNU216_PC4_02	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	GDSESEEDEDLEVPVPSR	K	F	95.00%	3.64	0.535	0	1	0	0	2	2,148.79	75	92	TRUE	
SNU216_PC4_02	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	4	0.02%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	4.04	0.492	0	2	1	0	2	2,553.09	70	92	TRUE	
SNU216_PC4_02	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	2	2	2	0.01%	14.70%	ELEAIFGRPVVDGEEGEPHSISPR	K	P	95.00%	4.93	0.404	0	0	1	0	2	2,700.27	274	297	TRUE	
SNU216_PC4_02	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	100.00%	2	2	2	0.01%	14.70%	RKPVLPALTINPTIAEGPSPTSEGASEANLVD	R	K	95.00%	9.07	0.0254	0	0	1	0	2	3,693.91	5	39	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	11	0.07%	26.80%	LLEDGEDFNLGDALDSSNSMQTIQK	R	T	95.00%	6.33	0.542	0	1	1	0	2	2,820.23	390	414	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	11	0.07%	26.80%	PVSSAASVYAGAGGSGSR	R	I	95.00%	3.01	0.502	0	1	1	0	2	1,660.73	28	45	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	11	0.07%	26.80%	QSVENDIHGLRK	R	V	95.00%	2.58	0.305	0	0	1	0	2	1,475.70	176	187	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	11	0.07%	26.80%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	E	95.00%	4.79	0.0013	0	1	0	0	2	2,919.35	51	81	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	11	0.07%	26.80%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	8.14	0.0008	0	0	1	2	2	3,993.83	51	90	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	11	0.07%	26.80%	TVQSLEIDLDSMR	R	N	95.00%	2.65	0.232	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	11	0.07%	26.80%	VRSLETENR	R	R	95.00%	2.2	0.295	0	1	0	0	2	1,183.55	98	106	TRUE	
SNU216_PC4_02	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.90%	2	2	2	0.01%	11.80%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	4.49	0.505	0	0	1	0	2	2,916.11	144	170	TRUE	
SNU216_PC4_02	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.90%	2	2	2	0.01%	11.80%	SHILEQHPHTLDLSPSEK	R	S	95.00%	3.09	0.278	0	0	1	0	2	2,148.01	108	125	TRUE	
SNU216_PC4_02	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	95.00%	1.79	0.168	1	0	0	0	2	1,044.38	133	139	TRUE	
SNU216_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	5.97%	DNSPPPAFKPEPPK	R	A	95.00%	2.41	0.373	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	5.97%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.33	0.521	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	5.97%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	87.40%	2.89	0.166	0	0	1	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC4_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	4	4	4	0.02%	5.97%	SRSWEDSPER	R	G	95.00%	2.39	0.286	0	1	0	0	2	1,328.53	168	177	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.80%	2	3	3	0.02%	5.48%	HSSDINHLVTQGRESPEGSYTDDANQEVR	R	G	95.00%	4.62	0.1	0	0	0	1	2	3,321.44	482	510	TRUE	
SNU216_PC4_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.80%	2	3	3	0.02%	5.48%	RHSSDINHLVTQGR	R	E	95.00%	2.55	0.248	0	0	1	1	2	1,699.80	481	494	TRUE	
SNU216_PC4_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	8.51%	ALASEKSPTADAKPAPK	K	R	95.00%	3.1	0.356	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216_PC4_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	8.51%	GVPEKSPVLEK	K	S	79.80%	1.96	0.209	0	1	0	0	2	1,262.64	186	196	TRUE	
SNU216_PC4_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	8.51%	IPSKEEEADMSSPTQR	K	T	95.00%	3.56	0.306	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC4_02	Probable ATP-dependent RNA helicase DDX48	IPI00009328	46,741.20	100.00%	1	1	1	0.01%	3.66%	KLDYGQHVVAGTPGR	R	V	95.00%	3.37	0.46	0	0	1	0	2	1,677.81	151	165	TRUE	
SNU216_PC4_02	Isoform 1 of Transcription elongation factor A pr	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	EPAITSQNSPEAR	K	E	84.50%	2.02	0.233	0	1	0	0	2	1,479.65	92	104	TRUE	
SNU216_PC4_02	Isoform 1 of Transcription elongation factor A pr	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	KEPAITSQNSPEAR	K	E	95.00%	3.2	0.19	0	1	0	0	2	1,607.74	91	104	TRUE	
SNU216_PC4_02	Isoform 1 of Transcription elongation factor A pr	IPI00333215	33,970.60	100.00%	3	4	4	0.02%	4.98%	KKEPAITSQNSPEAR	K	E	95.00%	4.2	0.447	0	1	1	0	2	1,735.84	90	104	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	4	4	4	0.02%	12.90%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	5.06	0.453	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	4	4	4	0.02%	12.90%	DLKIESDVQEPTEPEDDLDIMLGNKK	K	K	95.00%	4.99	0.367	0	0	1	0	2	3,051.41	100	125	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	4	4	4	0.02%	12.90%	IESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	4.46	0.536	0	1	0	0	2	2,567.11	103	124	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	4	4	4	0.02%	12.90%	KKDASDDLDDLNFFNQK	K	R	95.00%	4.1	0.347	0	0	1	0	2	2,092.92	63	79	TRUE	
SNU216_PC4_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLR	R	K	95.00%	1.79	0.309	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC4_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLRK	R	S	80.80%	1.8	0.235	0	1	0	0	2	1,220.60	182	191	TRUE	
SNU216_PC4_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.92	0.273	0	0	0	1	2	3,491.75	182	214	TRUE	
SNU216_PC4_02	Isoform 1 of Interferon-inducible double strandec	IPI00021167	34,405.20	99.60%	2	2	2	0.01%	6.39%	EDSGTFSLGK	R	M	95.00%	2.31	0.326	0	1	0	0	2	1,120.46	16	25	TRUE	
SNU216_PC4_02	Isoform 1 of Interferon-inducible double strandec	IPI00021167	34,405.20	99.60%	2	2	2	0.01%	6.39%	HRAEAPPLEREDSGTFSLGK	R	M	92.30%	2.77	0.192	0	0	0	1	2	2,277.07	6	25	TRUE	
SNU216_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	7	7	0.04%	4.18%	KLGAGEGGEASVSPEK	K	T	95.00%	3.23	0.306	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	7	7	0.04%	4.18%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.96	0.152	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	7	7	0.04%	4.18%	LGAGEGGEASVSPEK	K	T	95.00%	3.37	0.473	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	7	7	0.04%	4.18%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.43	0.104	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	7	7	0.04%	4.18%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	3.78	0.381	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC4_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	7	7	0.04%	4.18%	TSQVGAASAPAKESPR	K	K	95.00%	3.62	0.49	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216_PC4_02	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	99.50%	2	2	2	0.01%	4.30%	SPSVPKSPTPK	K	S	95.00%	2.79	0.427	0	1	0	0	2	1,204.60	8	18	TRUE	
SNU216_PC4_02	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	99.50%	2	2	2	0.01%	4.30%	SPTPKSPPSR	K	K	90.50%	1.93	0.249	0	1	0	0	2	1,133.54	14	23	TRUE	
SNU216_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	14.90%	AHTPTPGIYMGR	R	P	95.00%	2.07	0.259	0	1	0	0	2	1,380.61	200	211	TRUE	
SNU216_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	14.90%	AHTPTPGIYMGRPTHSGGGGGGGGGGGGG	R	R	95.00%	4.09	0.355	0	0	1	1	2	2,871.25	200	232	TRUE	
SNU216_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	14.90%	RAHTPTPGIYMGRPTHSGGGGGGGGGGGG	K	R	95.00%	6.41	0.0637	0	0	0	1	2	3,027.35	199	232	TRUE	
SNU216_PC4_02	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	3	4	4	0.02%	14.90%	SPSPYYSR	R	Y	95.00%	1.61	0.38	1	0	0	0	2	1,116.38	260	267	FALSE	IPI00555647,IPI00301503
SNU216_PC4_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	5	6	0.04%	6.69%	KTEMDKSPFNSPSPQDSPR	K	L	95.00%	4.71	0.434	0	0	1	0	2	2,227.97	327	345	TRUE	
SNU216_PC4_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	5	6	0.04%	6.69%	NWTEDMEGGISSPVKK	K	T	95.00%	3.46	0.433	0	2	1	0	2	1,857.81	312	327	TRUE	
SNU216_PC4_02	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	100.00%	3	5	6	0.04%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.23	0.488	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216_PC4_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.57	0.378	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC4_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	5.98	0.519	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216_PC4_02	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	3	0.02%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.55	0.438	0	0	3	0	2	2,581.01	131	153	TRUE	
SNU216_PC4_02	MARCKS-related protein	IPI00641181	19,397.40	100.00%	3	3	3	0.02%	19.60%	AAATPESQEPQAK	K	G	93.50%	1.9	0.26	0	1	0	0	2	1,407.62	144	156	TRUE	
SNU216_PC4_02	MARCKS-related protein	IPI00641181	19,397.40	100.00%	3	3	3	0.02%	19.60%	GDVTAEEAAGASPAK	R	A	95.00%	3.22	0.358	0	1	0	0	2	1,453.62	10	24	TRUE	
SNU216_PC4_02	MARCKS-related protein	IPI00641181	19,397.40	100.00%	3	3	3	0.02%	19.60%	GEVPPKETPK	K	K	94.50%	1.82	0.283	0	1	0	0	2	1,161.56	77	86	TRUE	
SNU216_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	100.00%	1	1	2	0.01%	5.82%	SSGSPYGGGYGSGGGSGGYGSR	R	R	95.00%	4.5	0.0125	0	2	0	0	2	1,990.76	355	376	TRUE	
SNU216_PC4_02	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	3	5	0.03%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	K	95.00%	5.15	0.364	0	0	1	0	2	2,890.36	20	49	TRUE	
SNU216_PC4_02	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	3	5	0.03%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	A	95.00%	4.17	0.464	0	0	0	2	2	3,018.46	20	50	TRUE	
SNU216_PC4_02	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	3	5	0.03%	17.30%	KAPAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	4.65	0.396	0	0	2	0	2	2,542.18	50	73	TRUE	
SNU216_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	3	4	5	0.03%	7.12%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	3.7	0.301	0	0	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	3	4	5	0.03%	7.12%	FSPGAPGGSGSQPNQK	K	L	95.00%	2.42	0.349	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216_PC4_02	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	3	4	5	0.03%	7.12%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.54	0.415	0	1	2	0	2	2,326.09	283	305	TRUE	
SNU216_PC4_02	Nucleoporin NUP53	IPI00329650	34,774.50	99.90%	2	2	2	0.01%	6.13%	SPLLAGGSPPQPVVPAHK	R	D	95.00%	2.69	0.389	0	1	0	0	2	1,831.95	66	83	TRUE	
SNU216_PC4_02	Nucleoporin NUP53	IPI00329650	34,774.50	99.90%	2	2	2	0.01%	6.13%	SPLLAGGSPPQPVVPAHKDK	R	S	95.00%	3.67	0.36	0	0	1	0	2	2,075.07	66	85	TRUE	
SNU216_PC4_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	4	5	0.03%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPKPR	K	V	95.00%	5.4	0.57	0	0	1	1	2	3,189.57	217	244	TRUE	
SNU216_PC4_02	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	4	5	0.03%	6.24%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.32	0.548	0	1	2	0	2	2,205.10	225	244	TRUE	
SNU216_PC4_02	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	DATPPVSPINMEDQER	R	I	95.00%	2.68	0.349	0	1	0	0	2	1,958.76	253	268	TRUE	
SNU216_PC4_02	Transcription factor jun-B	IPI00013439	35,879.80	99.80%	2	2	2	0.01%	5.19%	SRDATPPVSPINMEDQER	R	I	95.00%	2.45	0.254	0	1	0	0	2	2,201.89	251	268	TRUE	
SNU216_PC4_02	Calumenin precursor	IPI00014537	38,052.00	100.00%	1	2	2	0.01%	9.91%	VHHEPQLSDKVHNDAQSFDYDHDAFLGAI	R	T	95.00%	4.48	0.398	0	0	1	1	2	3,729.62	36	67	TRUE	
SNU216_PC4_02	septin 9	IPI00748715	63,634.10	99.70%	1	1	1	0.01%	1.94%	HVDSLSQRSPK	R	A	94.70%	1.97	0.271	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216_PC4_02	Small acidic protein	IPI00003419	20,332.70	100.00%	2	2	2	0.01%	13.10%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.01	0.576	0	1	0	0	2	2,514.99	15	37	TRUE	
SNU216_PC4_02	Small acidic protein	IPI00003419	20,332.70	100.00%	2	2	2	0.01%	13.10%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	4.66	0.534	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC4_02	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.33	0.202	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216_PC4_02	syntaxin 7	IPI00289876,IPI00552913	29,815.60	99.80%	1	1	1	0.01%	5.75%	ASSRVSGSFPEDSSK	R	E	95.00%	3.58	0.145	0	1	0	0	2	1,620.69	124	138	TRUE	
SNU216_PC4_02	Nibrin	IPI00299463,IPI00607775	75,970.60	99.80%	1	1	1	0.01%	2.12%	IPNYQLSPTKLPSINK	R	S	95.00%	3.94	0.356	0	1	0	0	2	1,892.99	344	359	TRUE	
SNU216_PC4_02	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	99.80%	1	1	1	0.01%	9.27%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.24	0.434	0	1	0	0	2	2,323.85	116	134	TRUE	
SNU216_PC4_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.80%	2	2	2	0.01%	3.70%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.6	0.376	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC4_02	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.80%	2	2	2	0.01%	3.70%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.53	0.247	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216_PC4_02	Cell cycle checkpoint control protein RAD9A	IPI00005277	42,548.10	99.30%	2	2	2	0.01%	11.50%	DSLLDGHFVLATLSDTDSHSQDLGSPER	K	H	87.00%	4.54	0.0899	0	0	1	0	2	3,092.38	253	280	TRUE	
SNU216_PC4_02	Cell cycle checkpoint control protein RAD9A	IPI00005277	42,548.10	99.30%	2	2	2	0.01%	11.50%	SPQGPSPVLAEDSEGEG	R	-	95.00%	2.56	0.29	0	1	0	0	2	1,735.71	375	391	TRUE	
SNU216_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	18	0.11%	10.00%	FASDDEHDEHDENGATGPVK	K	R	95.00%	4.06	0.449	0	1	2	0	2	2,249.86	364	383	TRUE	
SNU216_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	18	0.11%	10.00%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	5.19	0.491	0	2	2	2	2	2,405.96	364	384	TRUE	
SNU216_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	18	0.11%	10.00%	SPSKPLPEVTDEYKNDVK	R	N	95.00%	3.16	0.327	0	1	0	0	2	2,126.01	92	109	TRUE	
SNU216_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	18	0.11%	10.00%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	4	0.479	0	1	1	1	2	2,479.00	362	383	TRUE	
SNU216_PC4_02	Lupus La protein	IPI00009032	46,839.00	100.00%	5	12	18	0.11%	10.00%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.66	0.516	0	1	2	2	2	2,635.11	362	384	TRUE	
SNU216_PC4_02	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.10%	2	2	2	0.01%	14.60%	GSYNGQVGWFPSNYVTEEGDSPLGDHVGS	R	L	82.10%	5.16	0.057	0	0	1	0	2	3,592.55	146	178	TRUE	
SNU216_PC4_02	Cytoplasmic protein NCK1	IPI00028065	42,864.40	99.10%	2	2	2	0.01%	14.60%	RKPSVPDSASPADDSFVDPGER	K	L	95.00%	4.12	0.248	0	0	1	0	2	2,409.07	82	103	TRUE	
SNU216_PC4_02	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	5	0.03%	6.85%	KTAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.36	0.534	0	0	1	0	2	2,905.25	133	157	TRUE	
SNU216_PC4_02	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	5	0.03%	6.85%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	7.15	0.612	0	1	2	1	2	2,777.16	134	157	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	1	1	1	0.01%	3.08%	KSFTPDHVVYAR	R	S	95.00%	2.46	0.294	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216_PC4_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	11.80%	QSSPSGSEQLVR	R	R	95.00%	2.4	0.282	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC4_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	11.80%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	91.30%	7.42	0.005	0	0	1	0	2	3,066.27	16	41	TRUE	
SNU216_PC4_02	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	3	3	3	0.02%	11.80%	STGSPTQETQAPFIAK	K	R	95.00%	2.65	0.331	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216_PC4_02	Isoform Short of Dematin	IPI00216633,IPI00292290	45,515.90	100.00%	3	3	3	0.02%	8.88%	GAEEEEEEEDDDSGEEMK	R	A	95.00%	4	0.505	0	1	0	0	2	2,136.70	214	231	TRUE	
SNU216_PC4_02	Isoform Short of Dematin	IPI00216633,IPI00292290	45,515.90	100.00%	3	3	3	0.02%	8.88%	RGAEEEEEEEDDDSGEEMK	R	A	95.00%	3.57	0.516	0	1	0	0	2	2,292.80	213	231	TRUE	
SNU216_PC4_02	Isoform Short of Dematin	IPI00216633,IPI00292290	45,515.90	100.00%	3	3	3	0.02%	8.88%	STSPPPSPEVWADSR	K	S	95.00%	2.29	0.298	0	1	0	0	2	1,692.73	90	104	TRUE	
SNU216_PC4_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	3	3	3	0.02%	2.27%	FLMPEAYPSSPRKALR	R	R	91.40%	2.82	0.183	0	0	1	0	2	1,942.96	153	168	TRUE	
SNU216_PC4_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	3	3	3	0.02%	2.27%	LIDLESPTPESQK	K	S	95.00%	2.52	0.184	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216_PC4_02	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	3	3	3	0.02%	2.27%	TLSDESIYNSQR	R	E	95.00%	2.56	0.366	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216_PC4_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	10.10%	GDSLKEPTSIAESSR	R	H	95.00%	2.21	0.267	0	1	0	0	2	1,656.75	325	339	TRUE	
SNU216_PC4_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	10.10%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.49	0.366	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC4_02	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	10.10%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.1	0.364	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	7	0.04%	16.30%	AEDGATPSPSNETPK	K	K	95.00%	3.06	0.361	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	7	0.04%	16.30%	AEDGATPSPSNETPKK	K	K	95.00%	3.53	0.378	0	2	0	0	2	1,708.74	137	152	TRUE	
SNU216_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	7	0.04%	16.30%	AEDGATPSPSNETPKKK	K	K	95.00%	3.06	0.179	0	0	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	7	0.04%	16.30%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.99	0.357	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC4_02	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	6	7	0.04%	16.30%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.1	0.45	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC4_02	Junctional adhesion molecule A precursor	IPI00001754,IPI00069985,IP	28,231.40	100.00%	2	2	2	0.01%	5.35%	KVIYSQPSARSEGEFK	K	Q	95.00%	2.75	0.266	0	1	0	0	2	1,905.91	238	253	TRUE	
SNU216_PC4_02	Junctional adhesion molecule A precursor	IPI00001754,IPI00069985,IP	28,231.40	100.00%	2	2	2	0.01%	5.35%	VIYSQPSARSEGEFK	K	Q	95.00%	3.08	0.315	0	1	0	0	2	1,777.82	239	253	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 3 subunit 6	IPI00013068	52,222.60	100.00%	1	1	1	0.01%	4.49%	LGHVVMGNNAVSPYQQVIEK	K	T	95.00%	4.82	0.556	0	1	0	0	2	2,263.09	388	407	TRUE	
SNU216_PC4_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	2	2	2	0.01%	1.94%	SSSISEEKGDSDDEKPR	R	K	95.00%	3.31	0.248	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC4_02	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	100.00%	2	2	2	0.01%	1.94%	TAQVPSPPR	R	G	95.00%	2.24	0.316	0	1	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC4_02	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	5	7	0.04%	5.47%	FTDKDQQPSGSEGEDDDAEAALK	K	K	95.00%	4.37	0.607	0	1	1	0	2	2,612.99	164	186	TRUE	
SNU216_PC4_02	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	5	7	0.04%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.25	0.552	0	1	3	1	2	2,741.09	164	187	TRUE	
SNU216_PC4_02	Tumor necrosis factor receptor superfamily memt	IPI00004413	71,845.00	99.00%	2	2	2	0.01%	2.75%	LENSALLTVEPSPQDK	K	N	79.70%	2.94	0.077	0	1	0	0	2	1,820.87	530	545	TRUE	
SNU216_PC4_02	Tumor necrosis factor receptor superfamily memt	IPI00004413	71,845.00	99.00%	2	2	2	0.01%	2.75%	LENSALLTVEPSPQDKNK	K	G	95.00%	3.88	0.282	0	1	0	0	2	2,063.01	530	547	TRUE	
SNU216_PC4_02	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	99.90%	2	3	3	0.02%	10.80%	KYGGSVGSQPPPVAPEPGPVPSSPSQEPPTI	K	E	95.00%	5.48	0.459	0	0	1	1	2	3,291.61	178	209	TRUE	
SNU216_PC4_02	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	99.90%	2	3	3	0.02%	10.80%	YGGSVGSQPPPVAPEPGPVPSSPSQEPPTKI	K	E	95.00%	6.37	0.453	0	0	1	0	2	3,163.51	179	209	TRUE	
SNU216_PC4_02	Tissue factor precursor	IPI00010338	33,067.30	100.00%	1	1	1	0.01%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	3.04	0.441	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216_PC4_02	Isoform 3 of Anamorsin	IPI00025333,IPI00387130	33,583.00	99.80%	1	2	2	0.01%	5.35%	KSSPSVKPAVDPAAAK	K	L	95.00%	3.36	0.415	0	1	1	0	2	1,632.84	181	196	TRUE	
SNU216_PC4_02	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	13.60%	SKSPPKSPEEEGAVSS	R	-	87.20%	2.27	0.213	0	1	0	0	2	1,695.75	205	220	TRUE	
SNU216_PC4_02	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	2	2	2	0.01%	13.60%	VDNLTYRTSPDTLR	K	R	84.10%	2.53	0.162	0	1	0	0	2	1,730.81	17	30	TRUE	
SNU216_PC4_02	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	4	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.95	0.382	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216_PC4_02	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	99.80%	2	3	4	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	3.79	0.372	0	2	1	0	2	2,056.96	75	92	TRUE	
SNU216_PC4_02	Molecule interacting with Rab13	IPI00174962	93,442.20	99.80%	1	1	1	0.01%	1.85%	SPVPSPGSSSPQLQVK	R	S	95.00%	2.67	0.296	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216_PC4_02	Gastric-associated differentially-expressed protein	IPI00386208	14,866.80	100.00%	1	1	1	0.01%	11.00%	AAAYNIVPSSTGAAK	K	A	95.00%	2.83	0.325	0	1	0	0	2	1,500.71	26	40	TRUE	
SNU216_PC4_02	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	GSSGSPAHAESYSSGGGGQQK	R	F	90.10%	4.07	0.0001	0	1	0	0	2	2,015.81	15	35	TRUE	
SNU216_PC4_02	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	ISPEERRSPPAPGLQPMR	K	S	95.00%	3.11	0.285	0	0	1	0	2	2,098.03	193	210	TRUE	
SNU216_PC4_02	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	3	3	3	0.02%	12.00%	SPPAPGLQPMR	R	S	95.00%	2.01	0.279	0	1	0	0	2	1,230.57	200	210	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	5	0.03%	15.00%	AALEDTLAETEAR	K	F	95.00%	2.18	0.238	0	1	0	0	2	1,469.65	318	330	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	5	0.03%	15.00%	FVSSSSSGGYGGGYGGVLTASDGLLAGNEK	R	L	95.00%	4.13	0.455	0	2	1	0	2	2,874.28	52	81	TRUE	
SNU216_PC4_02	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	5	0.03%	15.00%	SLLEGQEDHYNNLSASK	R	V	95.00%	3.14	0.267	0	1	0	0	2	1,984.86	382	398	TRUE	
SNU216_PC4_02	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	1	1	1	0.01%	3.16%	SGSMDPSGAHPSVR	R	Q	95.00%	2.61	0.334	0	1	0	0	2	1,464.59	18	31	TRUE	
SNU216_PC4_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	4.20%	AHAWPSPYKDYEVK	R	K	95.00%	3.32	0.335	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216_PC4_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	4.20%	AHAWPSPYKDYEVKK	R	E	84.90%	3.07	0.122	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216_PC4_02	Protein farnesyltransferase/geranylgeranyltransfer	IPI00026813,IPI00607601,IP	34,729.80	99.80%	1	1	1	0.01%	3.43%	HSTENDSPTNVQQ	K	-	85.60%	2.65	0.142	0	1	0	0	2	1,536.60	276	288	TRUE	
SNU216_PC4_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.60%	2	2	2	0.01%	1.34%	RPESPSEISPIK	K	G	95.00%	2.71	0.322	0	1	0	0	2	1,419.69	262	273	TRUE	
SNU216_PC4_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	99.60%	2	2	2	0.01%	1.34%	RPESPSEISPIKGSVR	K	T	93.00%	2.81	0.138	0	1	0	0	2	1,898.88	262	277	TRUE	
SNU216_PC4_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	4	4	0.02%	4.74%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	4.51	0.413	0	1	1	0	2	2,017.81	298	317	TRUE	
SNU216_PC4_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	4	4	0.02%	4.74%	ISASSATR	R	E	95.00%	1.87	0.314	0	1	0	0	2	872.3873	257	264	TRUE	
SNU216_PC4_02	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	4	4	0.02%	4.74%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.05	0.467	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC4_02	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.80%	2	2	2	0.01%	6.60%	EESLVEELSPASEK	R	K	95.00%	3	0.255	0	1	0	0	2	1,626.71	418	431	TRUE	
SNU216_PC4_02	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	99.80%	2	2	2	0.01%	6.60%	SRLSPAGEMKPMPLSEGK	K	S	95.00%	3.08	0.181	0	0	1	0	2	1,994.94	441	458	TRUE	
SNU216_PC4_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	2.95%	PSSPPPEVLEPHSLDQPPATSSRPLIEVGELL	R	T	95.00%	4.09	0.212	0	0	0	1	2	3,953.99	367	402	TRUE	
SNU216_PC4_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	2.95%	VPSSDEEVVEEPQSR	R	R	95.00%	3.75	0.425	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC4_02	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	100.00%	1	2	2	0.01%	7.12%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	4.34	0.477	0	1	1	0	2	2,307.02	146	166	TRUE	
SNU216_PC4_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	5	0.03%	6.06%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.01	0.565	0	0	4	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC4_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	5	0.03%	6.06%	SSTPLPTISSSAENTR	R	Q	93.40%	2.8	0.141	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216_PC4_02	Isoform 1 of Protein NDRG3	IPI00005605	41,408.90	100.00%	1	1	2	0.01%	4.53%	THSTSSSLGSGESPFSR	R	S	95.00%	2.94	0.344	0	2	0	0	2	1,803.75	329	345	TRUE	
SNU216_PC4_02	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.80%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPR	R	R	95.00%	2.81	0.416	0	1	0	0	2	1,578.68	551	565	TRUE	
SNU216_PC4_02	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.80%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPRR	R	T	95.00%	3.37	0.408	0	1	0	0	2	1,734.78	551	566	TRUE	
SNU216_PC4_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	8	0.05%	11.00%	DDGDEEGLLTHSEEELEHSQDTDADDGALC	R	-	95.00%	6.83	0.449	0	0	1	0	2	3,350.30	261	290	TRUE	
SNU216_PC4_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	8	0.05%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	6.68	0.518	0	0	5	2	2	3,607.45	259	290	TRUE	
SNU216_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	12	0.07%	15.40%	AGDLLEDSPK	R	R	95.00%	2.68	0.154	1	0	0	0	2	1,124.49	158	167	TRUE	
SNU216_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	12	0.07%	15.40%	AGDLLEDSPKRPK	R	E	95.00%	2.54	0.185	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	12	0.07%	15.40%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.27	0.306	0	1	1	0	2	2,124.93	127	146	TRUE	
SNU216_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	12	0.07%	15.40%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.63	0.445	0	1	3	0	2	2,462.04	127	148	TRUE	
SNU216_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	12	0.07%	15.40%	KGNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.99	0.399	0	1	0	0	2	2,332.99	126	146	TRUE	
SNU216_PC4_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	9	12	0.07%	15.40%	RAGDLLEDSPK	R	R	95.00%	2.61	0.354	0	2	0	0	2	1,280.59	157	167	TRUE	
SNU216_PC4_02	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	EVYELLDSPGK	K	V	95.00%	2.38	0.392	0	1	0	0	2	1,329.60	46	56	TRUE	
SNU216_PC4_02	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	EVYELLDSPGKVLLQSK	K	D	95.00%	4.19	0.538	0	1	0	0	2	1,998.02	46	62	TRUE	
SNU216_PC4_02	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	TKEVYELLDSPGKVLLQSK	K	D	95.00%	3.06	0.261	0	0	1	0	2	2,227.16	44	62	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	4.75%	DYDDMSPR	R	R	95.00%	1.78	0.272	0	1	0	0	2	1,094.35	279	286	TRUE	
SNU216_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	4.75%	IILDLISESPIKGR	K	A	95.00%	2.92	0.271	0	1	0	0	2	1,633.89	208	221	TRUE	
SNU216_PC4_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	4	0.02%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	4.08	0.361	0	2	1	0	2	1,673.69	221	235	TRUE	
SNU216_PC4_02	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	4	0.02%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.54	0.451	0	0	1	0	2	1,721.82	221	236	TRUE	
SNU216_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.08%	EIQNGNLHESDSESVPR	K	D	95.00%	2.62	0.283	0	2	1	0	2	1,990.85	66	82	TRUE	
SNU216_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.08%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.68	0.34	0	1	2	0	2	2,247.04	64	82	TRUE	
SNU216_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.08%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	3.6	0.446	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216_PC4_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	6	8	0.05%	3.08%	VEPVPVTKQPTPPSEAAASK	K	K	95.00%	2.93	0.32	0	0	1	0	2	2,113.06	143	162	TRUE	
SNU216_PC4_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	5	6	0.04%	9.98%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	5.15	0.429	0	2	1	0	2	2,586.99	308	328	TRUE	
SNU216_PC4_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	5	6	0.04%	9.98%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	6.4	0.59	0	0	1	1	2	3,394.35	302	328	TRUE	
SNU216_PC4_02	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	3	5	6	0.04%	9.98%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.02	0.313	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.10%	21.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.82	0.337	1	2	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.10%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDK	K	E	95.00%	5.67	0.527	0	0	1	0	2	2,989.16	143	168	TRUE	
SNU216_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.10%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	6.88	0.583	0	0	6	3	2	3,657.52	143	174	TRUE	
SNU216_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.10%	21.40%	LNVLEKSSPGHR	R	A	89.50%	2.55	0.16	0	1	1	0	2	1,416.70	111	122	TRUE	
SNU216_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.10%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	E	91.40%	3.77	0.149	0	0	1	0	2	3,529.43	144	174	TRUE	
SNU216_PC4_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	9	17	0.10%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	L	95.00%	3.7	0.409	0	0	1	0	2	3,943.62	144	177	TRUE	
SNU216_PC4_02	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	4	9	0.06%	7.59%	LGAGGGSPEKSPSAQELK	R	E	95.00%	4.47	0.397	0	3	1	0	2	1,792.85	13	30	TRUE	
SNU216_PC4_02	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	4	9	0.06%	7.59%	LGAGGGSPEKSPSAQELKEQGNR	R	L	95.00%	4.57	0.351	0	2	3	0	2	2,377.11	13	35	TRUE	
SNU216_PC4_02	Mitogen-activated protein kinase 1	IPI00003479	41,260.70	99.80%	1	1	1	0.01%	5.29%	VADPDHDHTGFLTEYVATR	R	W	95.00%	4.65	0.54	0	0	1	0	2	2,223.97	172	190	TRUE	
SNU216_PC4_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	2	3	3	0.02%	11.40%	RGDSESEEDEQDSEEVR	R	L	95.00%	3.17	0.475	0	1	0	0	2	2,155.73	12	28	TRUE	
SNU216_PC4_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	2	3	3	0.02%	11.40%	VGDTEKPEPERSPPNR	R	K	95.00%	3.79	0.432	0	1	1	0	2	1,887.86	250	265	TRUE	
SNU216_PC4_02	GCN1-like protein 1	IPI00001159	292,936.60	99.70%	2	2	2	0.01%	1.35%	EDAGGMIQRLMQQLLESDK	K	Y	95.00%	2.61	0.242	0	1	0	0	2	2,258.02	1374	1392	TRUE	
SNU216_PC4_02	GCN1-like protein 1	IPI00001159	292,936.60	99.70%	2	2	2	0.01%	1.35%	LKALGTLVSHVTLRLLK	R	P	94.30%	2.89	0.214	0	0	0	1	2	1,942.16	915	931	TRUE	
SNU216_PC4_02	Isoform 1 of Wilms' tumor 1-associating protein	IPI00220302	44,243.40	99.70%	1	1	1	0.01%	4.55%	EGNTTEDDFPSSPGNGNK	R	S	94.30%	2.48	0.247	0	1	0	0	2	1,945.75	295	312	TRUE	
SNU216_PC4_02	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	KPEDVLDDDDAGSAPLK	R	S	95.00%	3.22	0.276	0	1	0	0	2	1,864.82	234	250	TRUE	
SNU216_PC4_02	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	2	2	0.01%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	80.80%	2.72	0.151	0	0	1	0	2	2,020.92	233	250	TRUE	
SNU216_PC4_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	6	6	0.04%	8.98%	RPDPDSDEDEDYER	R	E	95.00%	3.93	0.59	0	1	1	0	2	1,817.65	57	70	TRUE	
SNU216_PC4_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	6	6	0.04%	8.98%	RPDPDSDEDEDYERER	R	R	95.00%	3.24	0.393	0	1	1	0	2	2,102.79	57	72	TRUE	
SNU216_PC4_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	3	6	6	0.04%	8.98%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.25	0.467	0	1	1	0	2	2,052.92	129	148	TRUE	
SNU216_PC4_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.5	0.461	0	0	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC4_02	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	YRSPYSGPK	R	F	92.80%	1.97	0.215	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC4_02	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEK	R	E	95.00%	3.66	0.512	0	1	0	0	2	1,768.69	115	129	TRUE	
SNU216_PC4_02	Adenovirus E1B19k-binding protein B5	IPI00028419,IPI00747113	25,286.10	99.80%	2	3	3	0.02%	9.61%	DHSSQSEEEVVEGEKEVEALKK	R	S	95.00%	4.62	0.535	0	0	1	1	2	2,566.16	115	136	TRUE	
SNU216_PC4_02	Cell division cycle 5-like protein	REVERSE_IPI00465294-R	92,254.10	99.70%	1	1	1	0.01%	2.37%	TFESVGSTQLIASPLDSEK	K	K	93.40%	2.89	0.201	0	1	0	0	2	2,088.97	514	532	TRUE	
SNU216_PC4_02	Tumor-associated calcium signal transducer 2 pre	IPI00297910	35,709.80	100.00%	1	1	1	0.01%	3.41%	ELGELRKEPSL	K	-	95.00%	2.24	0.207	0	1	0	0	2	1,350.67	313	323	TRUE	
SNU216_PC4_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	4	5	0.03%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.85	0.471	0	1	2	0	2	2,439.19	179	201	TRUE	
SNU216_PC4_02	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	4	5	0.03%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.25	0.458	0	0	1	1	2	2,595.29	178	201	TRUE	
SNU216_PC4_02	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	3	3	0.02%	8.98%	DLGSTEDGDGTDDFLTDKEDEK	K	A	95.00%	4.76	0.581	0	1	1	0	2	2,481.97	180	201	TRUE	
SNU216_PC4_02	Surfeit locus protein 2	IPI00018037,IPI00419264	29,648.00	99.80%	2	3	3	0.02%	8.98%	KDLGSTEDGDGTDDFLTDKEDEK	R	A	95.00%	4.51	0.373	0	0	1	0	2	2,610.06	179	201	TRUE	
SNU216_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	10.80%	ETSVSKEDTDHEEK	K	A	95.00%	2.73	0.253	0	1	1	0	2	1,713.69	114	127	TRUE	
SNU216_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	10.80%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	4.08	0.166	0	0	1	0	2	2,558.08	114	135	TRUE	
SNU216_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	10.80%	QSNASSDVEVEEK	K	E	95.00%	3.08	0.359	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	10.80%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	5.11	0.487	0	0	1	0	2	3,116.31	101	127	TRUE	
SNU216_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	10.80%	TGVTSTSDSEEEGDDQEGEKK	K	R	89.60%	3.61	0.0385	0	1	0	0	2	2,387.87	267	287	TRUE	
SNU216_PC4_02	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	6	7	7	0.04%	10.80%	TGVTSTSDSEEEGDDQEGEKKR	K	K	95.00%	4.19	0.0389	0	1	0	0	2	2,543.97	267	288	TRUE	
SNU216_PC4_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	100.00%	3	4	4	0.02%	3.65%	RVALSDDETKETENMR	K	K	95.00%	2.19	0.26	0	1	0	0	2	1,973.86	303	318	TRUE	
SNU216_PC4_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	100.00%	3	4	4	0.02%	3.65%	VALSDDETKETENMR	R	K	95.00%	3.62	0.333	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216_PC4_02	DNA polymerase delta subunit 3	IPI00394926	51,400.40	100.00%	3	4	4	0.02%	3.65%	VALSDDETKETENMRK	R	K	95.00%	4.09	0.444	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216_PC4_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	4	4	0.02%	5.28%	ADREVQAEQPSSSSPR	K	R	95.00%	3.24	0.406	0	0	1	0	2	1,823.79	175	190	TRUE	
SNU216_PC4_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	4	4	0.02%	5.28%	ADREVQAEQPSSSSPRR	K	K	95.00%	3.1	0.222	0	0	1	0	2	1,979.89	175	191	TRUE	
SNU216_PC4_02	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	3	4	4	0.02%	5.28%	EVQAEQPSSSSPR	R	R	95.00%	3.53	0.482	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216_PC4_02	Plakophilin-3	IPI00026952	87,084.70	99.90%	1	1	1	0.01%	2.38%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	3.76	0.353	0	1	0	0	2	2,142.05	308	326	TRUE	
SNU216_PC4_02	Septin-7	IPI00033025,IPI00552502	48,807.20	100.00%	1	1	1	0.01%	3.65%	GQLTKSPLAQMEEERR	K	E	95.00%	2.76	0.305	0	0	1	0	2	1,952.93	310	325	TRUE	
SNU216_PC4_02	Melanoma-associated antigen G1	IPI00217104	34,309.10	99.80%	1	1	1	0.01%	5.59%	GPGGSQGSQGPSPQGAR	R	R	95.00%	3.03	0.488	0	1	0	0	2	1,604.68	53	69	TRUE	
SNU216_PC4_02	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.02%	10.70%	RASLSDLTDLEDIEGLTVR	R	Q	95.00%	4.71	0.509	0	1	1	0	2	2,183.06	238	256	TRUE	
SNU216_PC4_02	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.02%	10.70%	VPAEDETQSIDSEDSFVPGR	R	R	95.00%	4.1	0.372	0	2	0	0	2	2,257.95	218	237	TRUE	
SNU216_PC4_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	RVNDAEPGSPEAPQGK	R	R	95.00%	2.48	0.333	0	1	0	0	2	1,731.77	75	90	TRUE	
SNU216_PC4_02	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	VNDAEPGSPEAPQGK	R	R	95.00%	3.25	0.42	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216_PC4_02	40S ribosomal protein S3a	IPI00419880	29,814.10	100.00%	1	1	1	0.01%	4.56%	ADGYEPPVQESV	R	-	94.40%	1.94	0.253	0	1	0	0	2	1,370.55	252	263	TRUE	
SNU216_PC4_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.23	0.262	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216_PC4_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	4.17	0.272	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216_PC4_02	Isoform 1 of NAD-dependent deacetylase sirtuin-	IPI00179109,IPI00382551,IP	39,517.10	99.80%	2	3	3	0.02%	6.17%	EHASIDAQSGAGVPNPSTSASPK	R	K	95.00%	6.11	0.521	0	1	1	0	2	2,288.02	311	333	TRUE	
SNU216_PC4_02	Isoform 1 of NAD-dependent deacetylase sirtuin-	IPI00179109,IPI00382551,IP	39,517.10	99.80%	2	3	3	0.02%	6.17%	REHASIDAQSGAGVPNPSTSASPK	R	K	95.00%	4.58	0.462	0	0	1	0	2	2,444.12	310	333	TRUE	
SNU216_PC4_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.04%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.76	0.303	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216_PC4_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.04%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.64	0.451	0	1	2	0	2	1,767.78	38	56	TRUE	
SNU216_PC4_02	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.04%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.79	0.425	0	1	1	0	2	2,132.89	38	58	TRUE	
SNU216_PC4_02	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	GEEGSDDDETENGPKPK	K	K	95.00%	3.6	0.376	0	1	0	0	2	1,883.72	988	1004	TRUE	
SNU216_PC4_02	136 kDa protein	IPI00005625	135,683.90	99.80%	2	2	2	0.01%	2.85%	KGSGSEQEGEDEEGGER	K	K	95.00%	3.22	0.554	0	1	0	0	2	1,939.66	961	977	TRUE	
SNU216_PC4_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	6	6	0.04%	4.88%	SEHKVWSPLVTEEGKR	R	H	95.00%	3.02	0.361	0	1	1	1	2	1,961.95	83	98	TRUE	
SNU216_PC4_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	6	6	0.04%	4.88%	VWSPLVTEEGK	K	R	95.00%	2.34	0.264	0	1	0	0	2	1,324.62	87	97	TRUE	
SNU216_PC4_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	3	6	6	0.04%	4.88%	VWSPLVTEEGKR	K	H	95.00%	2.58	0.254	0	1	1	0	2	1,480.72	87	98	TRUE	
SNU216_PC4_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	4	6	0.04%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	3.12	0.25	0	0	1	0	2	1,548.75	298	311	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	2	4	6	0.04%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.85	0.488	0	1	3	1	2	1,917.95	294	311	TRUE	
SNU216_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	7	9	9	0.06%	7.14%	ASPSKPASAPASR	R	S	95.00%	2.41	0.356	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	7	9	9	0.06%	7.14%	DMESPTKLDVTLAK	K	D	95.00%	3.18	0.268	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	7	9	9	0.06%	7.14%	DMSPLSETEMALGK	K	D	95.00%	2.84	0.463	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	7	9	9	0.06%	7.14%	ETERASPIKMDLAPSK	K	D	95.00%	2.96	0.208	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	7	9	9	0.06%	7.14%	RASPSKPASAPASR	K	S	95.00%	2.46	0.324	0	1	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	7	9	9	0.06%	7.14%	SPSTLLPK	R	K	80.30%	1.55	0.185	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216_PC4_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	7	9	9	0.06%	7.14%	VGSLDNVGHLPAGGAVK	K	I	95.00%	2.84	0.353	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	ASLGSLEGEAEAEASSPK	K	G	95.00%	4.41	0.435	0	3	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.86	0.356	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	FKAEAPLPSPK	K	L	95.00%	2.97	0.393	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	GGVTGSPEASISGSKGDLK	K	S	95.00%	2.92	0.355	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	GHYEVTGSDDETGK	K	L	95.00%	2.8	0.565	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.36	0.43	0	1	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	GKGGVTGSPEASISGSK	K	G	95.00%	3.25	0.17	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	SKGHYEVTGSDDETGK	K	L	95.00%	2.85	0.486	0	1	0	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC4_02	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.07%	2.67%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.65	0.227	0	0	0	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC4_02	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	2	3	0.02%	4.39%	KETPPPLVPPAAR	R	E	95.00%	2.61	0.456	0	2	0	0	2	1,452.76	3	15	TRUE	
SNU216_PC4_02	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	2	3	0.02%	4.39%	MRKETPPPLVPPAAR	-	E	95.00%	3.73	0.325	0	0	1	0	2	1,739.90	1	15	TRUE	
SNU216_PC4_02	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.10%	2	2	2	0.01%	15.10%	GRESDEDTEDASETDLAKHDEEDYVEMK	R	E	95.00%	3.71	0.51	0	0	1	0	2	3,483.24	42	69	TRUE	
SNU216_PC4_02	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.10%	2	2	2	0.01%	15.10%	RPASPSSPEHLPATPAESPAQR	K	F	82.80%	3.39	0.132	0	0	1	0	2	2,363.11	235	256	TRUE	
SNU216_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	5	5	0.03%	5.11%	ETQSPEQVKSEK	K	L	95.00%	2.84	0.369	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	5	5	0.03%	5.11%	KAEGEPQEESPLKSK	K	S	95.00%	4.7	0.429	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC4_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	5	5	0.03%	5.11%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.78	0.345	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC4_02	Protein C9orf42	IPI00061087	30,529.40	99.80%	2	2	2	0.01%	9.06%	HGLLLPASPVR	R	M	95.00%	2.31	0.387	0	1	0	0	2	1,239.66	69	79	TRUE	
SNU216_PC4_02	Protein C9orf42	IPI00061087	30,529.40	99.80%	2	2	2	0.01%	9.06%	RIDFIPVSPASPSTR	K	G	95.00%	3.07	0.273	0	1	0	0	2	1,732.88	136	150	TRUE	
SNU216_PC4_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	2	2	0.01%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	7.73	0.173	0	0	1	0	2	4,288.01	210	250	TRUE	
SNU216_PC4_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	2	2	0.01%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	4.16	0.502	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216_PC4_02	Glutamate-rich WD repeat-containing protein 1	IPI00027831	49,418.40	99.40%	1	2	2	0.01%	6.73%	MHNLHGTKPPPSEGSDEEEEEEEDEEDEEER	R	K	95.00%	6.18	0.649	0	0	1	1	2	3,669.34	108	137	TRUE	
SNU216_PC4_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	6.08%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	5.29	0.545	0	1	1	0	2	2,669.00	89	113	TRUE	
SNU216_PC4_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	6.08%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	5.17	0.474	0	0	1	0	2	2,797.10	89	114	TRUE	
SNU216_PC4_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	6.08%	GNDSDGEGESDDPEK	K	K	95.00%	3.45	0.584	0	1	0	0	2	1,630.54	99	113	TRUE	
SNU216_PC4_02	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	4	6	6	0.04%	6.08%	GNDSDGEGESDDPEKKK	K	L	95.00%	4.4	0.468	0	1	1	0	2	1,886.73	99	115	TRUE	
SNU216_PC4_02	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	99.90%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	79.50%	2.07	0.211	0	1	0	0	2	1,768.67	272	284	TRUE	
SNU216_PC4_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	3	3	0.02%	16.10%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	94.60%	7.57	0.0001	0	0	1	0	2	3,614.83	125	161	TRUE	
SNU216_PC4_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	3	3	0.02%	16.10%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.06	0.516	0	1	0	0	2	2,030.88	59	76	TRUE	
SNU216_PC4_02	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	3	3	0.02%	16.10%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.95	0.537	0	1	0	0	2	1,860.86	107	124	TRUE	
SNU216_PC4_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GLLYDSDEEDEERPAR	R	K	95.00%	2.99	0.267	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216_PC4_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GNDPLTSSPGR	R	S	95.00%	2.13	0.302	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC4_02	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	1	0.01%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.5	0.228	0	0	1	0	2	1,497.72	192	204	TRUE	
SNU216_PC4_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.09	0.278	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC4_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.52	0.268	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216_PC4_02	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	3	3	0.02%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.11	0.324	0	1	0	0	2	2,132.82	494	510	TRUE	
SNU216_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	3.15	0.224	0	0	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.71	0.379	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.67	0.401	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC4_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	4	4	0.02%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.88	0.366	0	1	0	0	2	1,945.79	249	265	TRUE	
SNU216_PC4_02	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	99.80%	1	2	3	0.02%	5.31%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.99	0.529	0	2	1	0	2	2,394.07	428	451	TRUE	
SNU216_PC4_02	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	DSLSPVLHPSDLILTR	K	G	95.00%	3.04	0.384	0	1	1	0	2	1,842.94	311	326	TRUE	
SNU216_PC4_02	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.02%	9.63%	GTLDEEDEEADSDTDDIDHR	R	V	95.00%	4.64	0.496	0	1	1	0	2	2,356.86	327	346	TRUE	
SNU216_PC4_02	CDA02	IPI00012462	67,852.50	99.80%	1	1	1	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.02	0.302	0	0	1	0	2	1,944.91	527	544	TRUE	
SNU216_PC4_02	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	56,976.70	99.80%	1	1	1	0.01%	2.98%	RASVRGSSEEDEDAR	R	T	95.00%	2.84	0.229	0	1	0	0	2	1,823.70	132	146	TRUE	
SNU216_PC4_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.70%	2	3	3	0.02%	4.85%	NSASATTPLSGNSSR	R	R	93.50%	3.51	0.0664	0	1	0	0	2	1,529.66	311	325	TRUE	
SNU216_PC4_02	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.70%	2	3	3	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	3.91	0.413	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216_PC4_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	3	3	0.02%	9.73%	KKSPNELVDDLFK	R	G	95.00%	4.48	0.488	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC4_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	3	3	0.02%	9.73%	LGSTAPQVLSTSSPAQQAENEAK	K	A	95.00%	4.51	0.467	0	1	0	0	2	2,394.12	262	284	TRUE	
SNU216_PC4_02	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	1	2	2	0.01%	2.42%	RGSIGENQIKDEK	K	I	95.00%	3.89	0.239	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC4_02	Septin-2	IPI00014177	41,488.20	100.00%	2	4	5	0.03%	5.54%	IYHLPDAESDEDEDFK	K	E	95.00%	3.22	0.412	0	1	0	0	2	2,002.80	210	225	TRUE	
SNU216_PC4_02	Septin-2	IPI00014177	41,488.20	100.00%	2	4	5	0.03%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.56	0.384	0	1	2	1	2	2,517.05	210	229	TRUE	
SNU216_PC4_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	2	2	0.01%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	3.49	0.447	0	1	0	0	2	1,738.78	105	120	TRUE	
SNU216_PC4_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	2	2	0.01%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.24	0.415	0	0	1	0	2	1,894.88	104	120	TRUE	
SNU216_PC4_02	PREDICTED: similar to basic leucine zipper and W	IPI00005681	34,091.00	99.80%	1	1	3	0.02%	4.70%	NAEEESESEAEEGD	K	-	95.00%	2.26	0.305	0	3	0	0	2	1,604.51	285	298	TRUE	
SNU216_PC4_02	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.55	0.36	0	1	0	0	2	1,872.96	270	286	TRUE	
SNU216_PC4_02	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	SASSDTSEELNSQDSPPK	R	Q	87.60%	4.18	0	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216_PC4_02	P40	IPI00164951,IPI00298454,IP	39,947.80	99.80%	2	2	2	0.01%	7.40%	SSSPATEQSWMENDFDELREEGFR	R	R	95.00%	3.58	0.199	0	0	1	0	2	2,927.18	25	48	TRUE	
SNU216_PC4_02	P40	IPI00164951,IPI00298454,IP	39,947.80	99.80%	2	2	2	0.01%	7.40%	SSSPATEQSWMENDFDELREEGFRR	R	S	95.00%	4.64	0.327	0	0	0	1	2	3,083.28	25	49	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	4.35	0.488	0	1	2	1	2	2,421.94	71	90	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	EEDEEPESPPEK	K	K	95.00%	2.57	0.23	0	1	0	0	2	1,494.55	207	218	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	EEDEEPESPPEKK	K	T	95.00%	3.07	0.385	0	2	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	EKTPSPKEEDEEPESPPEK	K	K	95.00%	3.99	0.396	0	0	3	0	2	2,261.97	200	218	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	EMLMEDVGSEEEQEEEDEAPFQEK	R	D	95.00%	4.72	0.504	0	1	0	0	2	2,937.12	105	128	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	5.1	0.641	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	LKATVTPSPVK	R	G	95.00%	2.32	0.299	1	2	0	0	2	1,220.67	174	184	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	LKATVTPSPVKGK	R	G	95.00%	3.06	0.387	0	1	1	0	2	1,405.78	174	186	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	NSQEDSEDSEDKDVK	K	T	95.00%	3.14	0.331	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	4.54	0.433	0	3	2	0	2	2,076.82	50	67	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	TPSPKEEDEEPESPPEK	K	K	95.00%	3.13	0.39	0	1	0	0	2	2,004.83	202	218	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	TPSPKEEDEEPESPPEKK	K	T	95.00%	4.33	0.488	0	1	3	0	2	2,132.93	202	219	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.67	0.52	0	3	1	0	2	2,317.88	10	28	TRUE	
SNU216_PC4_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	22	35	0.21%	50.60%	VVDYSQFQESDDADEDYGRDSGPPTKK	K	I	95.00%	3.95	0.398	0	0	1	0	2	3,128.30	10	36	TRUE	
SNU216_PC4_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	4.04	0.472	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216_PC4_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.77	0.495	0	1	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC4_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	3	5	7	0.04%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.78	0.437	0	2	1	0	2	1,885.89	8	24	TRUE	
SNU216_PC4_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	3	5	7	0.04%	15.60%	SLSTSGESLYHVLGLDKNATSDDIK	R	K	85.70%	5.52	0.0373	0	0	1	0	2	2,730.29	8	32	TRUE	
SNU216_PC4_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	3	5	7	0.04%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.85	0.263	0	0	2	1	2	2,858.38	8	33	TRUE	
SNU216_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	12.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	6.97	0.525	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	12.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.52	0.369	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	12.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.9	0.469	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216_PC4_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	12.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.01	0.356	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC4_02	Protein LYRIC	IPI00328715	63,838.40	100.00%	1	1	1	0.01%	1.55%	SETSWESPK	K	Q	93.50%	1.87	0.239	0	1	0	0	2	1,130.44	562	570	TRUE	
SNU216_PC4_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	7	0.04%	7.12%	APQTSSSPPPVR	K	R	95.00%	2.34	0.29	0	1	0	0	2	1,303.60	699	710	TRUE	
SNU216_PC4_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	7	0.04%	7.12%	KAASPSPQSVR	K	R	86.30%	2.07	0.224	0	1	0	0	2	1,207.58	744	754	TRUE	
SNU216_PC4_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	7	0.04%	7.12%	KETESEAEDNLDDLEK	K	H	95.00%	4.11	0.332	0	3	0	0	2	1,944.80	879	894	TRUE	
SNU216_PC4_02	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	4	7	0.04%	7.12%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.61	0.158	0	0	2	0	2	2,791.42	772	797	TRUE	
SNU216_PC4_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	7.88%	SLDMDSIIAEVK	R	A	95.00%	2.84	0.217	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216_PC4_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	7.88%	SYKVSTSGPR	K	A	83.70%	1.55	0.28	0	1	0	0	2	1,161.53	8	17	TRUE	
SNU216_PC4_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	7.88%	SYTSGPGSR	R	I	95.00%	1.88	0.364	1	0	0	0	2	991.3881	23	31	TRUE	
SNU216_PC4_02	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	4	4	4	0.02%	7.88%	VGSSNFR	R	G	81.90%	1.67	0.221	0	1	0	0	2	846.3505	40	46	TRUE	
SNU216_PC4_02	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	99.80%	2	2	2	0.01%	4.94%	NSNSPPSPSSMNQR	R	R	95.00%	2.75	0.399	0	1	0	0	2	1,582.63	438	451	TRUE	
SNU216_PC4_02	Interferon regulatory factor 2 binding protein 2	IPI00376199,IPI00646970	59,480.40	99.80%	2	2	2	0.01%	4.94%	RKPSPEPEGEVGPPK	K	I	95.00%	3.24	0.389	0	1	0	0	2	1,683.81	341	355	TRUE	
SNU216_PC4_02	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	33,321.60	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIK	K	R	95.00%	3.94	0.435	0	1	0	0	2	1,600.80	230	244	TRUE	
SNU216_PC4_02	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	33,321.60	99.80%	2	3	3	0.02%	5.21%	GVEPSPSPIKPGDIKR	K	G	95.00%	3.05	0.241	0	1	1	0	2	1,756.90	230	245	TRUE	
SNU216_PC4_02	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	1	1	1	0.01%	0.95%	VTGPRLVSNHSLHETSSVFVDSLTK	K	A	89.40%	3.31	0.191	0	0	0	1	2	2,790.38	2515	2539	TRUE	
SNU216_PC4_02	PRR8 protein	IPI00061758	30,238.60	99.80%	2	2	2	0.01%	7.46%	DIKEESDEEEEDDEESGR	K	L	95.00%	4.25	0.532	0	1	0	0	2	2,219.80	200	217	TRUE	
SNU216_PC4_02	PRR8 protein	IPI00061758	30,238.60	99.80%	2	2	2	0.01%	7.46%	DIKEESDEEEEDDEESGRLR	K	F	95.00%	3.14	0.42	0	0	1	0	2	2,488.98	200	219	TRUE	
SNU216_PC4_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	3.89%	RLSNVSSSGSINLLESPQLATLAEDVTAALAI	R	Q	80.20%	6.28	0.0037	0	0	1	0	2	3,335.71	1793	1824	TRUE	
SNU216_PC4_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	3.89%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	5.6	0.0818	0	1	0	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC4_02	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	3.89%	VDHGAEIITQSPGR	R	S	95.00%	3.41	0.364	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC4_02	Methylosome subunit pICln	IPI00004795	26,215.40	99.80%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.75	0.622	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216_PC4_02	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	100.00%	3	3	3	0.02%	11.50%	DDGSSMSFYVRPSPAK	R	R	95.00%	2.32	0.251	0	1	0	0	2	1,823.77	24	39	TRUE	
SNU216_PC4_02	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	100.00%	3	3	3	0.02%	11.50%	ENARSPSSVTGNALWK	K	A	95.00%	2.39	0.252	0	1	0	0	2	1,796.83	150	165	TRUE	
SNU216_PC4_02	Telomeric repeat-binding factor 2-interacting prot	IPI00008961	44,260.50	100.00%	3	3	3	0.02%	11.50%	YLLGDAPVSPSSQK	K	L	95.00%	2.83	0.356	0	1	0	0	2	1,541.72	195	208	TRUE	
SNU216_PC4_02	Isoform 1 of Cyclin-K	IPI00431227	64,239.90	99.80%	1	1	1	0.01%	1.90%	AVVVSPKEENK	R	A	95.00%	2.1	0.317	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216_PC4_02	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.02%	5.38%	EDLSPAFDHSPNK	K	I	95.00%	2.95	0.363	0	1	0	0	2	1,536.64	295	307	TRUE	
SNU216_PC4_02	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.02%	5.38%	ELSKEDLSPAFDHSPNK	K	I	95.00%	4	0.369	0	1	1	0	2	1,993.89	291	307	TRUE	
SNU216_PC4_02	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.02%	5.38%	WKELSKEDLSPAFDHSPNK	R	I	95.00%	3.32	0.207	0	0	1	0	2	2,308.06	289	307	TRUE	
SNU216_PC4_02	programmed cell death 4 isoform 2	IPI00240675,IPI00290110,IP	50,577.40	99.80%	1	1	1	0.01%	2.18%	SGLTVPTSPK	R	G	95.00%	1.9	0.369	0	1	0	0	2	1,066.52	76	85	TRUE	
SNU216_PC4_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	99.10%	1	1	1	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	81.60%	2.28	0.184	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216_PC4_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	3	0.02%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	4.98	0.428	0	1	0	0	2	2,186.95	50	68	TRUE	
SNU216_PC4_02	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	3	3	0.02%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.12	0.318	0	1	1	0	2	1,764.73	99	114	TRUE	
SNU216_PC4_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	5.35%	KRSVQEGENPDDGVR	R	G	95.00%	4.81	0.389	0	0	1	0	2	1,765.79	12	26	TRUE	
SNU216_PC4_02	RNA-binding protein 34	IPI00181617	48,565.90	99.80%	2	2	2	0.01%	5.35%	SVQEGENPDDGVRGSPPEDYR	R	L	95.00%	2.47	0.396	0	1	0	0	2	2,382.98	14	34	TRUE	
SNU216_PC4_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	2.67%	LGSPDYGNSALLSLPGYRPTTR	R	S	91.80%	2.78	0.178	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216_PC4_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	2.67%	TQPDGTSVPGEPASPISQR	R	L	95.00%	3.88	0.45	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC4_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	3	3	3	0.02%	2.67%	VSLEPHQGPGTPESK	R	K	95.00%	3.05	0.369	0	1	0	0	2	1,642.75	1990	2004	TRUE	
SNU216_PC4_02	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	40,067.80	99.80%	2	3	3	0.02%	6.74%	IHLGSSPK	R	K	95.00%	1.84	0.274	1	0	0	0	2	918.4446	53	60	TRUE	
SNU216_PC4_02	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	40,067.80	99.80%	2	3	3	0.02%	6.74%	SLHLSPQEQSASYQDR	K	R	95.00%	3.75	0.441	0	1	1	0	2	1,925.84	77	92	TRUE	
SNU216_PC4_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	4	5	0.03%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	3.03	0.23	0	1	1	0	2	1,666.81	31	44	TRUE	
SNU216_PC4_02	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	2	4	5	0.03%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.57	0.348	0	2	1	0	2	1,911.83	45	62	TRUE	
SNU216_PC4_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.90%	2	2	2	0.01%	6.01%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.29	0.562	0	1	0	0	2	2,225.01	472	492	TRUE	
SNU216_PC4_02	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.90%	2	2	2	0.01%	6.01%	GPALTPIRDEEWGGHSPR	R	S	95.00%	3.05	0.212	0	0	1	0	2	2,054.94	430	447	TRUE	
SNU216_PC4_02	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	NSLTGEEGQLAR	R	V	95.00%	2.36	0.426	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216_PC4_02	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	2	2	0.01%	2.95%	RNSLTGEEGQLAR	R	V	95.00%	3.2	0.264	0	1	0	0	2	1,510.70	110	122	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	4.48	0.603	0	1	1	0	2	2,506.85	272	293	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.57	0.463	0	2	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	4.54	0.72	0	3	1	0	2	2,858.93	238	262	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	6.72	0.529	0	0	1	0	2	3,790.49	238	271	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	7.95	0.563	0	0	4	2	2	4,277.68	238	275	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	NDKSEEEQSSSSVK	K	K	95.00%	3.47	0.432	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	3.78	0.449	0	2	2	0	2	2,336.00	211	230	TRUE	
SNU216_PC4_02	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	8	12	21	0.13%	28.30%	SEEEQSSSSVKKDETNVK	K	M	91.30%	3.93	0.0173	0	1	0	0	2	2,090.91	220	237	TRUE	
SNU216_PC4_02	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	1	1	0.01%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	4.09	0.455	0	0	0	1	2	3,901.66	12	44	TRUE	
SNU216_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	3	4	4	0.02%	22.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.82	0.607	0	1	1	0	2	2,375.94	172	191	TRUE	
SNU216_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	3	4	4	0.02%	22.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	2.92	0.281	0	1	0	0	2	2,115.85	47	66	TRUE	
SNU216_PC4_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	3	4	4	0.02%	22.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.41	0.467	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216_PC4_02	CDNA FLJ34719 fis, clone MESAN2005689, weakly	IPI00171390	37,477.60	99.80%	1	1	1	0.01%	8.33%	VSALEEDMDDVESSEEEEEEDEKLER	R	V	95.00%	3.68	0.374	0	0	1	0	2	3,230.20	181	206	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	99.20%	2	3	3	0.02%	6.41%	RFTPPSTALSPGK	R	M	83.30%	2.18	0.217	0	1	0	0	2	1,438.71	39	51	TRUE	
SNU216_PC4_02	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	99.20%	2	3	3	0.02%	6.41%	TAMRVSPHHPAPTPNPR	R	A	95.00%	2.81	0.282	0	0	1	1	2	1,945.92	234	250	TRUE	
SNU216_PC4_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	17.50%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	2.91	0.213	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216_PC4_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	17.50%	LGGLRPESPESLTSVSR	R	T	95.00%	2.77	0.181	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216_PC4_02	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	3	3	3	0.02%	17.50%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	4.09	0.339	0	0	1	0	2	2,383.10	72	94	TRUE	
SNU216_PC4_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.79	0.357	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC4_02	paternally expressed 10 isoform RF1/2	IPI00022095	80,173.00	100.00%	1	1	1	0.01%	0.99%	KPRSPPR	R	A	84.00%	1.69	0.221	0	1	0	0	2	917.4718	249	255	TRUE	IPI00455806
SNU216_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.50%	EESEEEEDEDDEEEEEEEK	R	E	95.00%	4.8	0.768	0	1	0	0	2	2,465.79	30	48	TRUE	
SNU216_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.50%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.86	0.65	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.50%	EESEEEEDEDDEEEEEEEKEKSLIVEGK	R	R	95.00%	3.67	0.329	0	0	1	0	2	3,529.32	30	57	TRUE	
SNU216_PC4_02	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.50%	NKEESSDDEDKESEEEPPK	K	K	95.00%	2.2	0.264	0	1	0	0	2	2,380.86	239	257	TRUE	
SNU216_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	KAPKSPAK	K	A	95.00%	2.38	0.311	0	1	0	0	2	906.481	182	189	TRUE	
SNU216_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	KASGPPVSELITK	R	A	95.00%	3.5	0.416	0	1	1	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	SETAPAAPAAPAPAEKTPVK	-	K	95.00%	4.24	0.508	0	1	1	0	2	1,983.98	1	20	TRUE	
SNU216_PC4_02	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.74	0.522	0	2	1	1	2	2,112.07	1	21	TRUE	
SNU216_PC4_02	WD-repeat protein 55	IPI00302990	42,123.60	100.00%	1	1	1	0.01%	5.22%	EEGEDSMAQEEKEETGDDSD	R	-	95.00%	2.42	0.414	0	1	0	0	2	2,309.78	364	383	TRUE	
SNU216_PC4_02	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.80%	1	1	1	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	2.88	0.298	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216_PC4_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.62	0.362	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC4_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.85	0.337	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC4_02	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.16	0.521	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216_PC4_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.60%	2	2	2	0.01%	7.56%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	92.90%	5.64	0.0503	0	0	1	0	2	2,903.48	310	336	TRUE	
SNU216_PC4_02	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.60%	2	2	2	0.01%	7.56%	VKEEPPSPPQSPR	R	V	95.00%	3.17	0.43	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216_PC4_02	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	99.10%	1	1	1	0.01%	5.22%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	3.91	0.398	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	4	4	0.02%	3.56%	RGSLTLTISGESPK	R	A	95.00%	3.28	0.394	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	4	4	0.02%	3.56%	RGSPVPPVPER	R	R	95.00%	2.32	0.234	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216_PC4_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	4	4	0.02%	3.56%	RLSLGQGDSTEAATEER	R	G	95.00%	3.96	0.464	0	1	1	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC4_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.95	0.53	0	2	0	0	2	1,617.62	79	92	TRUE	
SNU216_PC4_02	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	2.64	0.241	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216_PC4_02	Adhesion-regulating molecule 1 precursor	IPI00033030,IPI00470921	42,154.30	99.80%	1	1	1	0.01%	3.93%	SQSAAVTPSSTTSSTR	R	A	95.00%	3.32	0.259	0	1	0	0	2	1,647.72	211	226	TRUE	
SNU216_PC4_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	99.80%	2	2	2	0.01%	3.61%	LTPVSPESSSTEEK	R	S	95.00%	2.33	0.301	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216_PC4_02	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	99.80%	2	2	2	0.01%	3.61%	SRLTPVSPESSSTEEK	R	S	95.00%	3.41	0.0926	0	1	0	0	2	1,893.79	266	281	TRUE	
SNU216_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.50%	LNTSDFQK	R	L	95.00%	1.96	0.301	0	1	0	0	2	1,032.44	264	271	TRUE	
SNU216_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.50%	SLPVSVPVWGFK	K	E	95.00%	2.29	0.543	0	1	0	0	2	1,395.71	203	214	TRUE	
SNU216_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.50%	SSDEENGPPSSPDLDR	R	I	95.00%	3.28	0.397	0	2	0	0	2	1,781.69	222	237	TRUE	
SNU216_PC4_02	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.50%	TEARSSDEENGPPSSPDLDR	R	I	95.00%	3.42	0.208	0	1	1	0	2	2,398.85	218	237	TRUE	
SNU216_PC4_02	RNA-binding protein 5	IPI00005036	92,156.10	99.80%	1	1	1	0.01%	2.33%	GLVAAYSGDSDNEEELVER	R	L	95.00%	4.79	0.501	0	1	0	0	2	2,132.90	615	633	TRUE	
SNU216_PC4_02	Hsc70-interacting protein	IPI00032826	41,332.40	100.00%	1	1	2	0.01%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	4.01	0.438	0	0	2	0	2	2,745.07	64	85	TRUE	
SNU216_PC4_02	Isoform 1 of Acyl-coenzyme A oxidase 1, peroxis	IPI00296907,IPI00477729	74,687.50	99.80%	1	1	1	0.01%	3.33%	ERDSASFNPELLTHILDGSPEK	R	T	95.00%	4.27	0.227	0	0	1	0	2	2,535.18	8	29	TRUE	
SNU216_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	21	0.13%	29.80%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	3.95	0.351	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	21	0.13%	29.80%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.39	0.434	0	1	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	21	0.13%	29.80%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.67	0.554	0	0	2	1	2	2,951.45	55	80	TRUE	
SNU216_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	21	0.13%	29.80%	MQASIEKGGSLPK	K	V	95.00%	2.42	0.213	0	1	0	0	2	1,425.68	222	234	TRUE	
SNU216_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	21	0.13%	29.80%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.4	0.378	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216_PC4_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	10	21	0.13%	29.80%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.65	0.584	0	0	3	9	2	3,735.89	46	80	TRUE	
SNU216_PC4_02	COP9 signalosome complex subunit 3	IPI00025721	47,743.30	99.80%	1	1	1	0.01%	4.03%	SMGSQEDDSGNKPSSYS	K	-	95.00%	2.38	0.271	0	1	0	0	2	1,855.67	406	422	TRUE	
SNU216_PC4_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.11	0.278	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC4_02	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	SPSFGDPQLSPEARPR	R	C	95.00%	2.5	0.217	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	6	6	7	0.04%	19.20%	DGYGGSRDSYSSSR	R	S	95.00%	2.26	0.392	0	1	0	0	2	1,573.59	318	331	TRUE	
SNU216_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	6	6	7	0.04%	19.20%	DVYLSPRDDGYSTK	R	D	95.00%	2.38	0.234	0	1	0	0	2	1,695.73	204	217	TRUE	
SNU216_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	6	6	7	0.04%	19.20%	DYGHSSSRDDYPSR	R	G	95.00%	2.33	0.262	0	1	0	0	2	1,721.66	245	258	TRUE	
SNU216_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	6	6	7	0.04%	19.20%	GLPPSMER	R	G	95.00%	1.54	0.415	0	2	0	0	2	966.4116	348	355	TRUE	
SNU216_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	6	6	7	0.04%	19.20%	GPPSRGGHMDDGGYSMNFNMSSSR	R	G	95.00%	3.14	0.288	0	0	1	0	2	2,624.01	121	144	TRUE	
SNU216_PC4_02	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	6	6	7	0.04%	19.20%	RDVYLSPRDDGYSTK	R	D	95.00%	2.61	0.312	0	1	0	0	2	1,851.83	203	217	TRUE	
SNU216_PC4_02	28 kDa protein	IPI00063387	28,278.70	99.80%	2	3	3	0.02%	7.91%	RTPAPPEPGSPAPGEGPSGR	R	K	95.00%	4.58	0.526	0	1	1	0	2	1,993.91	171	190	TRUE	
SNU216_PC4_02	28 kDa protein	IPI00063387	28,278.70	99.80%	2	3	3	0.02%	7.91%	TPAPPEPGSPAPGEGPSGR	R	K	95.00%	3.72	0.461	0	1	0	0	2	1,837.81	172	190	TRUE	
SNU216_PC4_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.80%	2	2	3	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.05	0.245	0	0	1	0	2	2,926.25	191	216	TRUE	
SNU216_PC4_02	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.80%	2	2	3	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	4.21	0.131	0	0	2	0	2	3,082.36	191	217	TRUE	
SNU216_PC4_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	99.80%	2	2	3	0.02%	7.59%	IGEGTYGVVYK	K	G	95.00%	2.32	0.273	0	2	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216_PC4_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	99.80%	2	2	3	0.02%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.73	0.21	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216_PC4_02	Isoform 1 of Nucleolar protein 7	IPI00007729	29,426.90	99.80%	1	1	1	0.01%	5.84%	LTTASQTNIKKSPGK	K	V	95.00%	2.67	0.29	0	1	0	0	2	1,653.86	122	136	TRUE	
SNU216_PC4_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	2	2	2	0.01%	3.12%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	94.80%	6.79	0.0343	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216_PC4_02	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	99.90%	2	2	2	0.01%	3.12%	RSSLLSLMTGK	R	K	95.00%	2.53	0.388	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC4_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	3	0.02%	4.04%	KMEESDEEAVQAK	R	V	95.00%	3.71	0.268	0	1	0	0	2	1,573.65	688	700	TRUE	
SNU216_PC4_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	3	0.02%	4.04%	RYEDDGISDDEIEGKR	R	T	95.00%	2.65	0.206	0	0	1	0	2	1,976.82	21	36	TRUE	
SNU216_PC4_02	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	3	3	3	0.02%	4.04%	SSPGAGPSDHHSASRDER	R	F	95.00%	2.81	0.326	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216_PC4_02	heterogeneous nuclear ribonucleoprotein L isofor	IPI00027834	64,132.80	100.00%	1	1	1	0.01%	1.87%	ISRPGDSDDSR	K	S	95.00%	2.27	0.317	0	1	0	0	2	1,284.52	179	189	TRUE	
SNU216_PC4_02	Rho-GTPase-activating protein 1	IPI00020567	50,437.90	100.00%	1	1	1	0.01%	2.51%	SSSPELVTHLK	K	W	95.00%	2.17	0.229	0	1	0	0	2	1,277.61	49	59	TRUE	
SNU216_PC4_02	Isoform 1 of ADP-ribosylation factor GTPase-activ	IPI00175169,IPI00217354	45,675.50	99.80%	1	2	2	0.01%	3.94%	RSSDSWEVWGSASTNR	R	N	95.00%	3.02	0.365	0	1	1	0	2	1,904.79	367	382	TRUE	
SNU216_PC4_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.24	0.296	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216_PC4_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.29	0.373	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC4_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	2	3	3	0.02%	9.31%	GSGGSHNWGTVKDELTESPK	R	Y	95.00%	4.6	0.432	0	1	0	0	2	2,165.95	217	236	TRUE	
SNU216_PC4_02	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	2	3	3	0.02%	9.31%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.25	0.442	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216_PC4_02	40S ribosomal protein S6	IPI00021840	28,681.70	100.00%	1	1	1	0.01%	6.43%	LSSLRASTSKSESSQK	R	-	95.00%	2.97	0.243	0	1	0	0	2	1,775.85	234	249	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	53,543.70	100.00%	4	4	4	0.02%	8.68%	DYDEEEQGYDSEKEK	R	K	95.00%	3.02	0.207	0	1	0	0	2	1,943.71	424	438	TRUE	
SNU216_PC4_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	53,543.70	100.00%	4	4	4	0.02%	8.68%	DYDEEEQGYDSEKEKK	R	E	95.00%	2.41	0.386	0	1	0	0	2	2,071.80	424	439	TRUE	
SNU216_PC4_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	53,543.70	100.00%	4	4	4	0.02%	8.68%	LNHVAAGLVSPSLK	K	S	95.00%	2.73	0.453	0	1	0	0	2	1,485.78	198	211	TRUE	
SNU216_PC4_02	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	53,543.70	100.00%	4	4	4	0.02%	8.68%	SKTPPKSYSTAR	R	R	95.00%	2.34	0.357	0	0	1	0	2	1,402.67	323	334	TRUE	
SNU216_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	4	0.02%	17.60%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.01	0.565	0	0	4	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	4	0.02%	17.60%	HASPILPITEFSDIPR	K	R	95.00%	2.66	0.239	0	1	0	0	2	1,872.93	304	319	TRUE	
SNU216_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	4	0.02%	17.60%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	5.08	0.347	0	1	2	0	2	2,623.08	174	195	TRUE	
SNU216_PC4_02	thymopoietin isoform beta	IPI00030131	50,671.40	99.80%	2	3	4	0.02%	17.60%	SSTPLPTISSSAENTR	R	Q	93.40%	2.8	0.141	0	1	0	0	2	1,727.78	158	173	FALSE	IPI00216230
SNU216_PC4_02	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	2	2	2	0.01%	11.70%	GALQNIIPASTGAAK	R	A	95.00%	2.85	0.209	0	1	0	0	2	1,491.76	200	214	TRUE	
SNU216_PC4_02	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	2	2	2	0.01%	11.70%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	4.61	0.382	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216_PC4_02	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00033600	41,566.30	100.00%	1	1	1	0.01%	4.17%	GAGQQQSQEMMEVDR	K	R	95.00%	3.37	0.315	0	1	0	0	2	1,773.69	6	20	TRUE	
SNU216_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	6	0.04%	9.01%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.25	0.52	0	2	3	0	2	2,051.83	68	85	TRUE	
SNU216_PC4_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	2	3	6	0.04%	9.01%	IFVGGLSPDTPEEK	K	I	95.00%	2.63	0.229	0	1	0	0	2	1,568.72	184	197	TRUE	
SNU216_PC4_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.80%	2	3	4	0.02%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	6.22	0.24	0	0	1	0	2	4,104.59	78	115	TRUE	
SNU216_PC4_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.80%	2	3	4	0.02%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	5.38	0.152	0	0	2	1	2	4,260.69	78	116	TRUE	
SNU216_PC4_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	1	1	2	0.01%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	2.07	0.267	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216_PC4_02	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	ANSALTPPKPESGLTLQESNTPGLR	R	Q	95.00%	3.81	0.316	0	0	1	0	2	2,658.31	451	475	TRUE	
SNU216_PC4_02	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	SGVGLSSYLSTEKDASPK	R	T	95.00%	4.41	0.56	0	1	0	0	2	1,905.88	487	504	TRUE	
SNU216_PC4_02	Hypothetical protein FLJ20455	IPI00016405	27,626.80	99.20%	2	3	3	0.02%	8.98%	LENSPLGEALR	K	S	83.00%	2.08	0.177	0	1	0	0	2	1,278.61	105	115	TRUE	
SNU216_PC4_02	Hypothetical protein FLJ20455	IPI00016405	27,626.80	99.20%	2	3	3	0.02%	8.98%	RSSPPGHYYQK	R	S	95.00%	3.03	0.38	0	1	1	0	2	1,399.62	121	131	TRUE	
SNU216_PC4_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	40,772.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAK	R	K	95.00%	3.47	0.332	0	1	1	0	2	1,435.68	24	35	TRUE	
SNU216_PC4_02	Isoform 1 of DNA damage-binding protein 2	IPI00021518,IPI00446284,IP	40,772.50	99.80%	2	4	4	0.02%	3.04%	SRSPLELEPEAKK	R	L	95.00%	2.94	0.331	0	1	1	0	2	1,563.78	24	36	TRUE	
SNU216_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.06%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.19	0.462	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.06%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.26	0.428	0	0	2	1	2	3,647.49	108	138	TRUE	
SNU216_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.06%	13.00%	LDNVPHTPSSYIETLPK	R	A	95.00%	2.58	0.337	0	0	1	0	2	1,990.95	45	61	TRUE	
SNU216_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.06%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.53	0.434	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216_PC4_02	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	8	9	0.06%	13.00%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.96	0.527	0	0	1	1	2	3,787.60	107	138	TRUE	
SNU216_PC4_02	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	5	0.03%	10.30%	ELTDEEAER	K	L	95.00%	2.24	0.315	0	1	0	0	2	1,171.45	106	114	TRUE	
SNU216_PC4_02	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	5	0.03%	10.30%	NGSLDSPGKQDTEEDEEEDEKDK	K	G	95.00%	5.38	0.454	0	0	3	0	2	2,674.05	134	156	TRUE	
SNU216_PC4_02	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	3	3	5	0.03%	10.30%	QDTEEDEEEDEKDKGK	K	L	95.00%	4.75	0.373	0	0	1	0	2	2,003.76	143	158	TRUE	
SNU216_PC4_02	ELAV-like protein 1	IPI00301936	36,092.60	100.00%	1	1	1	0.01%	4.29%	NVALLSQLYHSPAR	K	R	95.00%	3.01	0.246	0	1	0	0	2	1,648.82	192	205	TRUE	
SNU216_PC4_02	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	99.80%	2	2	3	0.02%	6.88%	GQPGNAYDGAGQPSAAYLSMSQGAVANA	R	T	95.00%	3.85	0.368	0	0	1	0	2	3,774.65	542	578	TRUE	
SNU216_PC4_02	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	99.80%	2	2	3	0.02%	6.88%	QPTPPFFGR	R	D	95.00%	1.76	0.38	0	2	0	0	2	1,126.51	204	212	TRUE	
SNU216_PC4_02	26 kDa protein	IPI00217978	26,288.40	100.00%	3	4	4	0.02%	16.00%	NRHSPDHPGMGSSQASSSSSLR	K	-	95.00%	3.93	0.464	0	0	1	1	2	2,377.99	223	244	TRUE	
SNU216_PC4_02	26 kDa protein	IPI00217978	26,288.40	100.00%	3	4	4	0.02%	16.00%	TQDPVPPETPSDSDHK	R	K	95.00%	3.21	0.467	0	0	1	0	2	1,829.76	184	199	TRUE	
SNU216_PC4_02	26 kDa protein	IPI00217978	26,288.40	100.00%	3	4	4	0.02%	16.00%	TQDPVPPETPSDSDHKK	R	K	95.00%	3.52	0.283	0	0	1	0	2	1,957.85	184	200	TRUE	
SNU216_PC4_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	2	2	0.01%	8.05%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	2.95	0.284	0	0	1	0	2	2,210.89	537	555	TRUE	
SNU216_PC4_02	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	99.80%	2	2	2	0.01%	8.05%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	4.84	0.375	0	0	1	0	2	2,665.24	503	530	TRUE	
SNU216_PC4_02	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	IGHHSTSDDSSAYR	R	S	95.00%	2.95	0.352	0	1	1	0	2	1,612.64	367	380	TRUE	
SNU216_PC4_02	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDK	R	Q	95.00%	2.21	0.363	0	1	0	0	2	1,334.53	381	390	TRUE	
SNU216_PC4_02	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	3	5	5	0.03%	6.97%	SVDEVNYWDKQDHPISR	R	L	95.00%	4.09	0.521	0	1	1	0	2	2,167.94	381	397	TRUE	
SNU216_PC4_02	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	95.00%	2.3	0.248	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216_PC4_02	Synapse-associated protein 1	IPI00059242	39,933.40	100.00%	1	1	1	0.01%	1.99%	TPPVVIK	K	S	89.60%	1.6	0.141	1	0	0	0	2	833.4534	248	254	TRUE	
SNU216_PC4_02	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	1	1	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	95.00%	3.71	0.407	0	0	1	0	2	2,531.23	30	50	TRUE	
SNU216_PC4_02	Ribonucleoside-diphosphate reductase M2 subun	IPI00011118	51,094.50	99.70%	2	2	2	0.01%	6.01%	CASTMLSLRVPLAPITDPQQLQLSPLK	R	G	94.10%	3.14	0.227	0	0	0	1	2	3,137.55	57	83	TRUE	
SNU216_PC4_02	Ribonucleoside-diphosphate reductase M2 subun	IPI00011118	51,094.50	99.70%	2	2	2	0.01%	6.01%	VPLAPITDPQQLQLSPLK	R	G	95.00%	4.08	0.41	0	1	0	0	2	2,038.10	66	83	TRUE	
SNU216_PC4_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.70%	2	2	2	0.01%	7.37%	EGSPIPHDPEFGSK	R	L	95.00%	3.13	0.433	0	1	0	0	2	1,576.67	280	293	TRUE	
SNU216_PC4_02	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.70%	2	2	2	0.01%	7.37%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	94.30%	3.26	0.177	0	0	0	1	2	3,303.72	36	63	TRUE	
SNU216_PC4_02	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	1	2	8	0.05%	3.20%	SNSPLPVPPSK	R	A	95.00%	3.24	0.577	3	5	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC4_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.80%	2	2	2	0.01%	3.20%	KTESPIKLSPATPSR	K	K	95.00%	3.05	0.311	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC4_02	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.80%	2	2	2	0.01%	3.20%	SVAVSDEEEVEEEAER	R	R	95.00%	3.67	0.307	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC4_02	F-box/WD-repeat protein 9	IPI00477401	52,975.10	99.80%	2	2	2	0.01%	9.00%	SGLAFSRPSQLSTPAASPSASEPR	K	A	95.00%	4.18	0.397	0	0	1	0	2	2,481.18	43	66	TRUE	
SNU216_PC4_02	F-box/WD-repeat protein 9	IPI00477401	52,975.10	99.80%	2	2	2	0.01%	9.00%	TWDDDSDPESETDPDAQAK	R	A	95.00%	4.24	0.508	0	1	0	0	2	2,201.80	13	31	TRUE	
SNU216_PC4_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	5.2	0.649	0	1	0	0	2	2,304.83	179	197	TRUE	
SNU216_PC4_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	2	0.01%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	5.65	0.493	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216_PC4_02	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	2	2	0.01%	7.30%	GADSGEEKEEGINR	K	E	95.00%	2.77	0.499	0	1	0	0	2	1,570.64	194	207	TRUE	
SNU216_PC4_02	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	2	2	0.01%	7.30%	GADSGEEKEEGINREDK	K	T	95.00%	3.23	0.344	0	0	1	0	2	1,942.80	194	210	TRUE	
SNU216_PC4_02	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	7	0.04%	12.40%	AVKKTPK	K	K	95.00%	1.68	0.299	0	1	0	0	2	851.4752	150	156	TRUE	
SNU216_PC4_02	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	7	0.04%	12.40%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.96	0.401	0	2	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC4_02	Histone H1.5	IPI00217468	22,450.50	100.00%	3	6	7	0.04%	12.40%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.82	0.513	0	1	1	1	2	2,190.07	1	21	TRUE	
SNU216_PC4_02	PDZ and LIM domain protein 5	IPI00007935	63,839.90	99.80%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	3.35	0.306	0	1	0	0	2	1,630.88	101	115	TRUE	
SNU216_PC4_02	annexin A2 isoform 1	IPI00418169,IPI00455315	40,413.40	100.00%	1	1	2	0.01%	5.04%	LSLEGDHSTPPSAYGSVK	K	A	89.60%	4	0.0218	0	2	0	0	2	1,924.87	29	46	TRUE	
SNU216_PC4_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	99.80%	2	2	2	0.01%	6.12%	AAESETPGKSPEK	K	K	95.00%	3.01	0.418	0	1	0	0	2	1,410.62	418	430	TRUE	
SNU216_PC4_02	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	99.80%	2	2	2	0.01%	6.12%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.02	0.418	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216_PC4_02	Isoform 2 of Alkylated repair protein alkB homolo	IPI00413659,IPI00759562	52,460.30	99.80%	2	2	2	0.01%	5.35%	KYQEDSDPER	R	S	95.00%	2.06	0.244	0	1	0	0	2	1,346.53	59	68	TRUE	
SNU216_PC4_02	Isoform 2 of Alkylated repair protein alkB homolo	IPI00413659,IPI00759562	52,460.30	99.80%	2	2	2	0.01%	5.35%	YQEDSDPERSDYEEQQLQKEEEAR	K	K	95.00%	4.73	0.461	0	0	1	0	2	3,081.26	60	83	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	3	3	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.55	0.534	0	1	1	0	2	2,544.30	33	57	TRUE	
SNU216_PC4_02	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	2	3	3	0.02%	10.30%	GIPLATGDTSPEPELLPGAPLPPPKEVINGNI	K	T	89.40%	3.14	0.178	0	0	1	0	2	3,411.78	33	65	TRUE	
SNU216_PC4_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	GPTPPAMGPR	R	D	82.00%	1.71	0.269	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216_PC4_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	PAPPQEESPSSEAK	R	S	95.00%	2.6	0.261	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216_PC4_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.4	0.4	0	2	1	0	2	1,989.93	111	129	TRUE	
SNU216_PC4_02	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	4	5	6	0.04%	5.85%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.91	0.452	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC4_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	4	4	0.02%	9.97%	GKHSLDSDEEEDDDDGGSSK	K	Y	95.00%	2.6	0.341	0	1	1	0	2	2,201.80	43	62	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	4	4	0.02%	9.97%	GPGQPSSPQRLDR	K	L	95.00%	2.48	0.2	0	1	0	0	2	1,474.68	189	201	TRUE	
SNU216_PC4_02	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	100.00%	3	4	4	0.02%	9.97%	KGPGQPSSPQRLDR	R	L	95.00%	2.72	0.275	0	1	0	0	2	1,602.78	188	201	TRUE	
SNU216_PC4_02	Stomatin-like protein 2	IPI00334190	38,534.50	100.00%	1	1	1	0.01%	4.49%	APVPGTPDSLSSGSSR	K	D	95.00%	2.12	0.337	0	1	0	0	2	1,594.71	322	337	TRUE	
SNU216_PC4_02	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	2	2	0.01%	16.40%	DSLGDFIEHYAQLGPSSPEQLAAGAEEGGG	R	R	95.00%	5.16	0.507	0	0	1	0	2	3,335.49	84	115	TRUE	
SNU216_PC4_02	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	2	2	0.01%	16.40%	RGGGSGGGGEESEGEEVDED	R	-	95.00%	3.25	0.548	0	1	0	0	2	1,931.68	293	311	TRUE	
SNU216_PC4_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.34	0.361	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC4_02	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	4.53	0.329	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC4_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.21	0.313	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC4_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.14	0.477	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC4_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	5	0.03%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	4.96	0.467	0	0	2	0	2	3,306.56	362	391	TRUE	
SNU216_PC5_02	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	3	5	0.03%	8.70%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	5.59	0.423	0	0	1	0	2	2,653.18	116	137	TRUE	
SNU216_PC5_02	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	2	3	5	0.03%	8.70%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	4.16	0.405	0	1	3	0	2	2,497.08	117	137	TRUE	
SNU216_PC5_02	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	4	4	0.02%	9.05%	GSPHYFSPFRPY	R	-	95.00%	1.99	0.335	1	1	1	0	2	1,534.65	210	221	TRUE	
SNU216_PC5_02	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	2	4	4	0.02%	9.05%	STSYGYSR	R	S	95.00%	2.22	0.371	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216_PC5_02	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	99.70%	2	2	2	0.01%	12.60%	RGEAAGSPVPTPPRSPAQEEPTDFLSR	R	L	95.00%	3.95	0.267	0	0	1	0	2	3,089.32	107	133	TRUE	
SNU216_PC5_02	Isoform 1 of Bcl-2-related proline-rich protein	IPI00019835	36,822.20	99.70%	2	2	2	0.01%	12.60%	SPPSPELQGPPSTEK	K	E	95.00%	2.07	0.28	0	1	0	0	2	1,630.74	192	206	TRUE	
SNU216_PC5_02	Cell division protein kinase 2	IPI00031681	33,930.70	99.40%	1	1	1	0.01%	7.72%	IGEGTYGVVYK	K	A	95.00%	3.06	0.4	2	0	0	0	2	1,265.58	10	20	FALSE	IPI00026689
SNU216_PC5_02	Cell division protein kinase 2	IPI00031681	33,930.70	99.40%	1	1	1	0.01%	7.72%	TYTHEVVTLWYR	R	A	88.30%	2.14	0.219	0	1	0	0	2	1,647.76	158	169	TRUE	
SNU216_PC5_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.03%	5.97%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.06	0.205	0	0	1	0	2	2,429.15	976	997	TRUE	
SNU216_PC5_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.03%	5.97%	DNSPPPAFKPEPPK	R	A	95.00%	2.25	0.262	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC5_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.03%	5.97%	GRSIDQDYER	R	A	91.90%	2.04	0.26	0	1	0	0	2	1,318.54	242	251	TRUE	
SNU216_PC5_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.03%	5.97%	GSYGSDAEEEEYR	R	Q	95.00%	2.63	0.41	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC5_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.03%	5.97%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.22	0.256	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC5_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.03%	5.97%	KVQVAALQASPPLDQDDR	R	A	95.00%	3.94	0.504	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216_PC5_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.60%	2	2	2	0.01%	14.60%	AGDLLEDSPKRPK	R	E	95.00%	2.67	0.175	0	1	0	0	2	1,505.74	158	170	TRUE	
SNU216_PC5_02	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.60%	2	2	2	0.01%	14.60%	GNAEGSSDEEGKLVIDEPAKEK	K	N	92.50%	2.79	0.181	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC5_02	26 kDa protein	IPI00748891	26,044.60	99.80%	1	1	1	0.01%	11.40%	RVIHFVSGETMEEYSTDEDEVDGLEKK	R	D	95.00%	6.19	0.0624	0	0	1	0	2	3,302.39	79	105	TRUE	
SNU216_PC5_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	5.32	0.0668	0	0	1	0	2	2,428.13	618	639	TRUE	
SNU216_PC5_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	NDSWGSFDLR	R	A	89.00%	1.89	0.233	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC5_02	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	3	0.02%	6.33%	RTSPQVLGSILK	K	S	95.00%	2.47	0.201	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC5_02	GTP-binding protein SAR1a	IPI00015954	22,367.80	100.00%	1	1	1	0.01%	5.56%	IDRTDAISEEK	K	L	95.00%	2.48	0.207	0	1	0	0	2	1,356.60	136	146	TRUE	
SNU216_PC5_02	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	3	3	0.02%	12.00%	KLEDVKNSPTFK	K	S	95.00%	3.22	0.343	0	1	0	0	2	1,485.74	124	135	TRUE	
SNU216_PC5_02	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	3	3	0.02%	12.00%	NSPTFKSFEEKVENLK	K	S	95.00%	3.8	0.409	0	1	1	0	2	1,976.94	130	145	TRUE	
SNU216_PC5_02	SVH-B	IPI00420025,IPI00555667	33,851.10	99.70%	2	2	2	0.01%	7.79%	SAEDLTDGSYDDVLNAEQLQK	K	L	95.00%	5.27	0.623	0	1	0	0	2	2,391.02	45	65	TRUE	
SNU216_PC5_02	SVH-B	IPI00420025,IPI00555667	33,851.10	99.70%	2	2	2	0.01%	7.79%	SSKSAEDLTDGSYDDVLNAEQLQK	R	L	94.80%	4.53	0.112	0	0	1	0	2	2,693.18	42	65	TRUE	
SNU216_PC5_02	40S ribosomal protein S10	IPI00008438	18,898.30	100.00%	1	1	1	0.01%	8.48%	AEAGAGSATEFQFR	K	G	90.60%	2.19	0.26	0	1	0	0	2	1,521.64	140	153	TRUE	
SNU216_PC5_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	3	3	0.02%	13.20%	AQLGGPEAAKSDETAAK	R	-	95.00%	3.31	0.437	0	1	0	0	2	1,723.79	189	205	TRUE	
SNU216_PC5_02	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	2	3	3	0.02%	13.20%	QLSSGVSEIR	R	H	95.00%	2.16	0.329	1	1	0	0	2	1,155.54	80	89	TRUE	
SNU216_PC5_02	Isoform 1 of Dynamin-2	IPI00033022,IPI00181352,IP	98,024.70	98.60%	1	1	1	0.01%	1.38%	GWLTINNISLMK	R	G	95.00%	2.43	0.231	0	1	0	0	2	1,469.72	524	535	TRUE	
SNU216_PC5_02	Isoform B of Ras-related C3 botulinum toxin subs	IPI00219675	23,468.00	100.00%	1	1	1	0.01%	7.58%	LRPLSYPQTVGETYGK	R	D	95.00%	3.7	0.449	0	1	0	0	2	1,888.92	67	82	TRUE	
SNU216_PC5_02	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	1	0.01%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.65	0.254	0	0	1	0	2	1,497.72	192	204	TRUE	
SNU216_PC5_02	N-terminal acetyltransferase complex ARD1 subu	IPI00013184	26,459.00	100.00%	1	1	1	0.01%	5.96%	HVVLGAIENKVESK	R	G	90.30%	2.38	0.202	0	1	0	0	2	1,602.83	170	183	TRUE	
SNU216_PC5_02	Isoform C1 of Heterogeneous nuclear ribonucleo	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.80%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	8.1	0.51	0	0	1	0	2	4,277.68	238	275	TRUE	
SNU216_PC5_02	Isoform C1 of Heterogeneous nuclear ribonucleo	IPI00216592	32,338.00	100.00%	2	2	2	0.01%	19.80%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	3.62	0.354	0	0	1	0	2	2,320.00	211	230	TRUE	
SNU216_PC5_02	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	98.80%	1	1	1	0.01%	7.59%	LGAGGGSPEKSPSAQELKEQGNR	R	L	95.00%	3.8	0.179	0	0	1	0	2	2,377.11	13	35	TRUE	
SNU216_PC5_02	40S ribosomal protein S17	IPI00221093	15,419.30	100.00%	1	2	2	0.01%	16.40%	LLDFGSLSNLQVTQPTVGMNFK	K	T	95.00%	4.49	0.377	0	1	1	0	2	2,489.21	107	128	TRUE	
SNU216_PC5_02	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	1	1	1	0.01%	2.26%	GGSISVQVNSIKFDSE	R	-	95.00%	2.86	0.165	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216_PC5_02	Isoform 1 of Leucine zipper protein 1	IPI00296830,IPI00395737,IP	114,590.20	98.60%	1	1	1	0.01%	1.67%	EKPDSDDDLDIASLVTAK	R	L	95.00%	3.15	0.495	0	1	0	0	2	2,011.91	655	672	TRUE	
SNU216_PC5_02	Chloride intracellular channel protein 3	IPI00000692	26,649.40	100.00%	2	2	2	0.01%	10.60%	RSPDVLKDFAPGSQLPILLYDSDAK	R	T	95.00%	3.68	0.353	0	0	1	0	2	2,825.41	48	72	TRUE	
SNU216_PC5_02	Chloride intracellular channel protein 3	IPI00000692	26,649.40	100.00%	2	2	2	0.01%	10.60%	SPDVLKDFAPGSQLPILLYDSDAK	R	T	95.00%	2.61	0.243	0	0	1	0	2	2,669.31	49	72	TRUE	
SNU216_PC5_02	Syntaxin-4	IPI00029730	34,179.70	99.80%	1	2	2	0.01%	6.40%	AIEPQKEEADENYNSVNTR	K	M	95.00%	3.72	0.388	0	1	1	0	2	2,286.99	103	121	TRUE	
SNU216_PC5_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	3	3	0.02%	1.91%	DSENLASPSEYPENGER	R	F	95.00%	2.58	0.379	0	1	0	0	2	1,973.78	617	633	TRUE	
SNU216_PC5_02	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	99.80%	2	3	3	0.02%	1.91%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.79	0.337	0	1	1	0	2	1,971.75	883	898	TRUE	
SNU216_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	9.75%	ETPHSPGVEDAPIAK	R	V	95.00%	3.31	0.384	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	9.75%	LRSPPEALVQGR	R	Y	93.40%	2.39	0.202	0	1	0	0	2	1,402.72	130	141	TRUE	
SNU216_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	9.75%	SEVQQPVHPKPLSPDSR	K	A	95.00%	2.91	0.331	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC5_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	4	4	4	0.02%	9.75%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	5.95	0.442	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216_PC5_02	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	1	1	2	0.01%	7.27%	SKSPPKSPEEEGAVSS	R	-	95.00%	2.13	0.334	0	2	0	0	2	1,855.68	205	220	TRUE	
SNU216_PC5_02	septin 9	IPI00748715	63,634.10	99.80%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	95.00%	2.02	0.283	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216_PC5_02	septin 9	IPI00748715	63,634.10	99.80%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.72	0.47	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC5_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	1	1	0.01%	4.10%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	2.68	0.246	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216_PC5_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	IGEGTYGVVYK	K	G	95.00%	3.06	0.4	2	0	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216_PC5_02	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	2	2	3	0.02%	7.59%	VYTHEVVTLWYR	R	S	95.00%	2.5	0.319	0	1	0	0	2	1,645.78	165	176	TRUE	
SNU216_PC5_02	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSPSRPSPQI	R	P	95.00%	4.6	0.426	0	0	1	0	2	3,119.47	117	148	TRUE	
SNU216_PC5_02	Pleckstrin homology-like domain family A membe	IPI00019551	17,092.90	99.80%	2	3	3	0.02%	22.40%	TAPAAPAEDAVAAAAAAPSEPSPSRPSPQI	R	T	95.00%	6.26	0.529	0	0	1	1	2	3,372.62	117	150	TRUE	
SNU216_PC5_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	4	5	0.03%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.82	0.434	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216_PC5_02	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	4	5	0.03%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.58	0.288	0	0	2	1	2	2,858.38	8	33	TRUE	
SNU216_PC5_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	ADLNQGIGEPQSPSR	R	R	95.00%	3.11	0.249	0	1	0	0	2	1,648.73	63	77	TRUE	
SNU216_PC5_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	ADLNQGIGEPQSPSRR	R	V	86.90%	2.87	0.175	0	0	1	0	2	1,804.83	63	78	TRUE	
SNU216_PC5_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	RADLNQGIGEPQSPSR	R	R	95.00%	2.8	0.234	0	1	0	0	2	1,804.83	62	77	TRUE	
SNU216_PC5_02	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	4	4	4	0.02%	7.08%	RADLNQGIGEPQSPSRR	R	V	95.00%	3.74	0.431	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216_PC5_02	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	KLENSPLGEALR	K	S	95.00%	2.8	0.29	0	1	0	0	2	1,406.70	104	115	TRUE	
SNU216_PC5_02	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	LENSPLGEALR	K	S	95.00%	1.93	0.289	0	1	0	0	2	1,278.61	105	115	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_02	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	4	4	0.02%	9.39%	RSSPPGHYYQK	R	S	95.00%	3.56	0.407	0	1	1	0	2	1,399.62	121	131	TRUE	
SNU216_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	6	6	0.03%	3.40%	KGAAPTPPGK	R	T	95.00%	2.02	0.294	0	1	0	0	2	1,003.50	832	841	TRUE	
SNU216_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	6	6	0.03%	3.40%	KLGAGEGGEASVSPEK	K	T	95.00%	2.9	0.225	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	6	6	0.03%	3.40%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.57	0.204	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	6	6	0.03%	3.40%	LGAGEGGEASVSPEK	K	T	95.00%	3.02	0.348	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	6	6	0.03%	3.40%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.31	0.0826	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC5_02	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	6	6	6	0.03%	3.40%	TSQVGAASAPAKESPR	K	K	95.00%	3.41	0.452	0	1	0	0	2	1,636.77	291	306	TRUE	
SNU216_PC5_02	Cysteine and glycine-rich protein 1	IPI00442073	20,435.90	99.80%	1	1	1	0.01%	7.81%	GFGFGQGAGALVHSE	K	-	95.00%	2.24	0.361	0	1	0	0	2	1,513.65	178	192	TRUE	
SNU216_PC5_02	Histone H1.4	IPI00217467	21,735.70	100.00%	1	1	1	0.01%	5.96%	KASGPPVSELITK	R	A	95.00%	2.71	0.314	0	1	0	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216_PC5_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.80%	2	2	2	0.01%	4.20%	AHAWPSPYKDYEVK	R	K	87.00%	2.29	0.185	0	1	0	0	2	1,770.79	340	353	TRUE	
SNU216_PC5_02	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.80%	2	2	2	0.01%	4.20%	AHAWPSPYKDYEVKK	R	E	95.00%	3.25	0.145	0	0	1	0	2	1,898.88	340	354	TRUE	
SNU216_PC5_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	99.80%	2	2	2	0.01%	1.58%	AEKAAGMSSPGAQSHPEELPR	R	G	95.00%	2.95	0.266	0	0	1	0	2	2,230.00	709	729	TRUE	
SNU216_PC5_02	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	99.80%	2	2	2	0.01%	1.58%	ATGAALTPTEERR	R	T	95.00%	2.5	0.203	0	0	1	0	2	1,452.68	1340	1352	TRUE	
SNU216_PC5_02	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	1	1	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	2.18	0.354	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216_PC5_02	HIV TAT specific factor 1	IPI00013788	85,854.60	99.80%	2	2	2	0.01%	4.77%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	3.67	0.458	0	1	0	0	2	2,345.83	619	636	TRUE	
SNU216_PC5_02	HIV TAT specific factor 1	IPI00013788	85,854.60	99.80%	2	2	2	0.01%	4.77%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.25	0.408	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	6	7	7	0.04%	37.00%	KVASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	5.15	0.454	0	0	1	0	2	2,986.57	103	133	TRUE	
SNU216_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	6	7	7	0.04%	37.00%	KVYEDSGIPLPAESPK	R	K	95.00%	4.82	0.352	0	1	0	0	2	1,809.87	83	98	TRUE	
SNU216_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	6	7	7	0.04%	37.00%	KVYEDSGIPLPAESPKK	R	G	86.90%	2.23	0.217	0	1	0	0	2	1,937.96	83	99	TRUE	
SNU216_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	6	7	7	0.04%	37.00%	LGELTMQLHPVADSSPAGAK	K	W	95.00%	3.93	0.412	0	1	0	0	2	2,102.00	22	41	TRUE	
SNU216_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	6	7	7	0.04%	37.00%	VYEDSGIPLPAESPK	K	K	95.00%	2.92	0.361	0	1	0	0	2	1,681.77	84	98	TRUE	
SNU216_PC5_02	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	6	7	7	0.04%	37.00%	VYEDSGIPLPAESPKKGPK	K	K	95.00%	4.33	0.296	0	1	1	0	2	2,092.04	84	102	TRUE	
SNU216_PC5_02	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	1	2	5	0.03%	5.82%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	5.27	0.428	0	0	1	4	2	2,333.13	446	466	TRUE	
SNU216_PC5_02	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	2	2	0.01%	9.05%	KSPSGPVKSPPLSPVGTTPVK	R	L	95.00%	3.74	0.289	0	0	1	0	2	2,140.14	181	201	TRUE	
SNU216_PC5_02	Hypothetical protein MGC5509	IPI00031698	25,858.90	99.80%	2	2	2	0.01%	9.05%	SPSGPVKSPPLSPVGTTPVK	K	L	95.00%	3.27	0.253	0	0	1	0	2	2,012.05	182	201	TRUE	
SNU216_PC5_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GLLYDSDEEDEERPAR	R	K	95.00%	2.74	0.251	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216_PC5_02	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GNDPLTSSPGR	R	S	95.00%	2.4	0.361	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC5_02	c-Myc-responsive protein Rcl	IPI00007926	19,108.30	99.80%	1	1	1	0.01%	10.30%	YFEADPPGQVAASPDPTT	R	-	95.00%	2.88	0.454	0	1	0	0	2	1,942.81	157	174	TRUE	
SNU216_PC5_02	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	100.00%	2	2	3	0.02%	10.20%	IQEQESSGEEDSDLSPEER	R	E	95.00%	3.9	0.542	0	2	0	0	2	2,243.88	116	134	TRUE	
SNU216_PC5_02	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	100.00%	2	2	3	0.02%	10.20%	IQEQESSGEEDSDLSPEEREK	R	K	95.00%	3.46	0.519	0	0	1	0	2	2,580.99	116	136	TRUE	
SNU216_PC5_02	Isoform 1 of Myosin-18B	IPI00306929	285,458.10	99.00%	2	2	2	0.01%	0.97%	EIPEISISQPNSK	R	S	80.10%	2.33	0.193	0	0	1	0	2	1,521.72	68	80	TRUE	
SNU216_PC5_02	Isoform 1 of Myosin-18B	IPI00306929	285,458.10	99.00%	2	2	2	0.01%	0.97%	QIIQQMTFGPSR	R	W	95.00%	2.38	0.301	0	1	0	0	2	1,485.69	879	890	TRUE	
SNU216_PC5_02	Proteasome subunit alpha type 5	IPI00291922	26,411.30	100.00%	1	1	1	0.01%	5.39%	ITSPLMEPSSIEK	R	I	95.00%	2.71	0.409	0	1	0	0	2	1,511.71	54	66	TRUE	
SNU216_PC5_02	Isoform 1 of Sorting nexin-12	IPI00438170,IPI00438171,IP	19,819.10	99.50%	1	1	1	0.01%	8.14%	RYSDFEWLKNELER	R	D	90.30%	2.87	0.158	0	0	1	0	2	1,964.89	71	84	TRUE	
SNU216_PC5_02	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	99.90%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	87.80%	3.71	0.0333	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216_PC5_02	PDZ and LIM domain protein 5	IPI00007935	63,839.90	99.80%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	3.45	0.322	0	1	0	0	2	1,630.88	101	115	TRUE	
SNU216_PC5_02	MRG-binding protein	IPI00019451	22,416.80	99.80%	2	2	2	0.01%	9.80%	VLTANSNPSSPSAAKR	K	R	95.00%	3.73	0.438	0	1	0	0	2	1,679.81	186	201	TRUE	
SNU216_PC5_02	MRG-binding protein	IPI00019451	22,416.80	99.80%	2	2	2	0.01%	9.80%	VTDKVLTANSNPSSPSAAK	R	R	95.00%	3.39	0.265	0	1	0	0	2	1,966.95	182	200	TRUE	
SNU216_PC5_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	3	4	8	0.05%	20.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.48	0.391	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC5_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	3	4	8	0.05%	20.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	6.85	0.562	0	0	4	2	2	3,657.52	143	174	TRUE	
SNU216_PC5_02	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	3	4	8	0.05%	20.40%	LNVLEKSSPGHR	R	A	95.00%	2.45	0.237	0	1	0	0	2	1,416.70	111	122	TRUE	
SNU216_PC5_02	Ubiquitin-conjugating enzyme E2 E2	IPI00102173	22,255.70	100.00%	1	1	1	0.01%	8.46%	VDDSPSTSGGSSDGDQR	R	E	95.00%	3.06	0.498	0	1	0	0	2	1,746.65	8	24	TRUE	
SNU216_PC5_02	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	2	2	2	0.01%	7.01%	NLGSINTELQDVQR	R	I	95.00%	2.77	0.4	0	1	0	0	2	1,666.78	133	146	TRUE	
SNU216_PC5_02	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	2	2	2	0.01%	7.01%	RNLGSINTELQDVQR	R	I	95.00%	2.93	0.314	0	1	0	0	2	1,822.88	132	146	TRUE	
SNU216_PC5_02	Chromobox protein homolog 1	IPI00010320	21,418.10	100.00%	1	1	1	0.01%	8.11%	ADSDSEDKGEESKPK	K	K	93.10%	2.3	0.219	0	0	1	0	2	1,701.69	87	101	TRUE	
SNU216_PC5_02	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	2	2	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE(	K	T	95.00%	6.42	0.0415	0	0	1	1	2	4,013.68	6	39	TRUE	
SNU216_PC5_02	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	2	2	0.01%	18.00%	ELDEEGSDPPLPGR	R	A	95.00%	3	0.415	0	1	0	0	2	1,590.67	169	182	TRUE	
SNU216_PC5_02	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	2	2	0.01%	18.00%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.25	0.385	0	0	1	0	2	2,372.11	44	64	TRUE	
SNU216_PC5_02	Protein DEK	IPI00020021	42,675.90	98.90%	1	2	2	0.01%	5.60%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.43	0.649	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216_PC5_02	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	1	2	2	0.01%	4.88%	SEHKVWSPLVTEEGKR	R	H	95.00%	3.39	0.294	0	1	1	0	2	1,961.95	83	98	TRUE	
SNU216_PC5_02	Isoform 1 of Myelin basic protein	IPI00021907,IPI00216474	33,117.70	99.80%	1	1	1	0.01%	10.50%	TTSEDNEVFGEADANQNNGTSSQDTAVTE	R	T	95.00%	3.88	0.458	0	0	1	0	2	3,468.43	38	69	TRUE	
SNU216_PC5_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.62%	NRSAEEGELAESK	R	S	95.00%	3.44	0.404	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC5_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.62%	VPSSDEEVVEEPQSR	R	R	95.00%	3.65	0.466	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC5_02	hematological and neurological expressed 1 isofo	IPI00007764,IPI00384857	16,014.60	100.00%	1	1	1	0.01%	9.74%	RNSSEASSGDFLDLK	R	G	95.00%	3.72	0.393	0	1	0	0	2	1,705.74	85	99	TRUE	
SNU216_PC5_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.23	0.2	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216_PC5_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	EEVVGGDDSDGLR	R	A	95.00%	2.25	0.25	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216_PC5_02	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	3	3	3	0.02%	10.10%	KDIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.05	0.22	0	0	1	0	2	3,403.49	230	258	TRUE	
SNU216_PC5_02	Isoform 1 of RNA-binding protein 8A	IPI00001757	19,889.40	100.00%	1	2	4	0.02%	10.90%	MREDYDSVEQDGDEPGPQR	R	S	95.00%	3.79	0.489	0	2	2	0	2	2,302.89	50	68	TRUE	
SNU216_PC5_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	GSDPASGEVEASQLR	R	R	95.00%	2.63	0.311	0	1	0	0	2	1,582.67	106	120	TRUE	
SNU216_PC5_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	3.9	0.52	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216_PC5_02	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	3	4	4	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.83	0.499	0	0	1	0	2	1,894.88	104	120	TRUE	
SNU216_PC5_02	23 kDa protein	IPI00002821,IPI00069693,IP	23,259.00	100.00%	1	2	2	0.01%	4.19%	AALLKASPK	K	K	95.00%	2.37	0.37	1	1	0	0	2	978.5385	133	141	TRUE	
SNU216_PC5_02	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.20%	1	1	1	0.01%	2.86%	ERDHSPTPSVFNSDEER	R	Y	84.60%	2.93	0.194	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC5_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.11%	SSISLGWKPPAKDGGSPIK	K	G	95.00%	3.22	0.304	0	1	0	0	2	2,084.98	16554	16572	TRUE	
SNU216_PC5_02	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.11%	WTVPEKDGGSPITNYIVEKR	K	D	95.00%	3.51	0.285	0	1	0	0	2	2,369.15	14939	14958	TRUE	
SNU216_PC5_02	Ubiquitin domain containing 1 variant	IPI00017227	25,939.20	99.30%	2	2	3	0.02%	7.49%	DVRLSASLPDTVGQLKR	R	Q	95.00%	3.39	0.323	0	0	2	0	2	1,935.01	160	176	TRUE	
SNU216_PC5_02	Ubiquitin domain containing 1 variant	IPI00017227	25,939.20	99.30%	2	2	3	0.02%	7.49%	LSASLPDTVGQLKR	R	Q	86.50%	2.08	0.235	0	1	0	0	2	1,564.81	163	176	TRUE	
SNU216_PC5_02	NME2 protein	IPI00604590	32,642.20	100.00%	1	1	1	0.01%	5.82%	VMLGETNPADSKPGTIR	R	G	95.00%	3.08	0.398	0	1	0	0	2	1,865.88	114	130	TRUE	
SNU216_PC5_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.51	0.344	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC5_02	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	6.08	0.564	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216_PC5_02	Isoform 1 of Apoptotic chromatin condensation in	IPI00007334	151,887.90	99.80%	1	1	1	0.01%	1.27%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.87	0.278	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC5_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.60%	2	2	2	0.01%	6.95%	RHSSDINHLVTQGR	R	E	91.90%	2.33	0.235	0	0	0	1	2	1,699.80	481	494	TRUE	
SNU216_PC5_02	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	99.60%	2	2	2	0.01%	6.95%	THMADENKNEYAAQLQNFNGEQHK	R	H	95.00%	3.38	0.164	0	0	0	1	2	2,897.23	179	202	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_02	14-3-3 protein epsilon	IPI00000816	29,175.00	100.00%	1	1	1	0.01%	11.40%	AAFDDAIAELDTLSEESYKDSTLIMQLLR	K	D	95.00%	5.46	0.324	0	0	1	0	2	3,338.58	197	225	TRUE	
SNU216_PC5_02	Methylated-DNA--protein-cysteine methyltransfer	IPI00028618	21,645.90	99.80%	2	2	2	0.01%	6.76%	GAGATSGSPPAGR	K	-	95.00%	2.64	0.32	0	1	0	0	2	1,165.50	194	206	TRUE	
SNU216_PC5_02	Methylated-DNA--protein-cysteine methyltransfer	IPI00028618	21,645.90	99.80%	2	2	2	0.01%	6.76%	GAGATSGSPPAGRN	K	-	95.00%	2.25	0.305	0	1	0	0	2	1,279.54	194	207	TRUE	
SNU216_PC5_02	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	2.75	0.221	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216_PC5_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.03%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.88	0.503	0	1	1	0	2	2,671.09	14	37	TRUE	
SNU216_PC5_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	3.83	0.462	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216_PC5_02	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.03%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	6.05	0.62	0	1	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC5_02	Charged multivesicular body protein 3	IPI00100673	24,942.30	99.80%	1	1	1	0.01%	14.90%	VTDALPEPEPPGAMAASEDEEEEEEALEAM	K	L	95.00%	5.4	0.363	0	0	1	0	2	3,653.50	183	215	TRUE	
SNU216_PC5_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.70%	2	2	2	0.01%	0.95%	ETAKQKLDPAASVTGSK	R	R	93.10%	1.84	0.29	0	1	0	0	2	1,890.86	1436	1452	TRUE	
SNU216_PC5_02	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.70%	2	2	2	0.01%	0.95%	TPVQYSQQQNSPQK	K	H	95.00%	2.53	0.221	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC5_02	Proteasome inhibitor PI31 subunit	IPI00009949,IPI00643918	20,593.40	100.00%	1	1	2	0.01%	5.90%	ANVSSPHREFPPATAR	K	E	95.00%	2.9	0.257	0	0	2	0	2	1,816.85	149	164	TRUE	
SNU216_PC5_02	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	5	6	0.03%	13.60%	ERSPSPLRGNVVPSPLPTR	R	R	95.00%	3.48	0.488	0	1	2	0	2	2,299.04	28	46	TRUE	
SNU216_PC5_02	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	5	6	0.03%	13.60%	GNVVPSPLPTR	R	R	94.80%	1.89	0.306	0	1	0	0	2	1,216.61	36	46	TRUE	
SNU216_PC5_02	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	5	6	0.03%	13.60%	GNVVPSPLPTRR	R	T	95.00%	2.16	0.369	0	1	1	0	2	1,372.71	36	47	TRUE	
SNU216_PC5_02	nucleolar protein 5A	IPI00719818	66,052.00	99.70%	1	1	1	0.01%	3.03%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	2.83	0.384	0	1	0	0	2	2,064.89	561	578	TRUE	
SNU216_PC5_02	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.90%	1	1	1	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	2.97	0.279	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC5_02	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.48	0.337	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC5_02	Protein C9orf40	IPI00017504	21,063.50	99.80%	2	2	2	0.01%	8.25%	IDAGTMAEPSASPSK	K	R	95.00%	2.95	0.437	0	1	0	0	2	1,541.66	58	72	TRUE	
SNU216_PC5_02	Protein C9orf40	IPI00017504	21,063.50	99.80%	2	2	2	0.01%	8.25%	KIDAGTMAEPSASPSK	R	R	95.00%	3.97	0.498	0	1	0	0	2	1,669.75	57	72	TRUE	
SNU216_PC5_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	2	2	2	0.01%	5.44%	LPSSPVYEDAASFK	R	A	95.00%	2.93	0.464	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC5_02	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	2	2	2	0.01%	5.44%	TQTPPVSPAPQPTEER	K	L	95.00%	3.31	0.436	0	1	0	0	2	1,894.80	362	377	TRUE	
SNU216_PC5_02	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	2	2	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.62	0.554	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216_PC5_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	3	0.02%	3.08%	EIQNGNLHESDSESVPR	K	D	95.00%	3.21	0.314	0	1	0	0	2	1,990.85	66	82	TRUE	
SNU216_PC5_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	3	0.02%	3.08%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.52	0.385	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216_PC5_02	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	3	3	3	0.02%	3.08%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.67	0.461	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	7	8	0.05%	28.40%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	3.04	0.208	0	0	1	0	2	2,501.91	71	90	TRUE	
SNU216_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	7	8	0.05%	28.40%	EEDEEPESPPEKK	K	T	95.00%	2.99	0.361	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	7	8	0.05%	28.40%	LKATVTPSPVKGK	R	G	95.00%	2.83	0.414	0	1	1	0	2	1,405.78	174	186	TRUE	
SNU216_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	7	8	0.05%	28.40%	NSQEDSEDSEDKDVK	K	T	95.00%	3.59	0.49	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	7	8	0.05%	28.40%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	2.52	0.395	0	1	0	0	2	2,236.76	50	67	TRUE	
SNU216_PC5_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	6	7	8	0.05%	28.40%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.79	0.289	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216_PC5_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	1	1	1	0.01%	15.50%	DLLHPSPEEEKRK	K	H	79.80%	2.41	0.176	0	1	0	0	2	1,657.79	13	25	TRUE	
SNU216_PC5_02	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	2	0.01%	15.30%	RIDFTPVSPAPSPTR	K	G	95.00%	2.83	0.353	0	1	0	0	2	1,800.81	108	122	TRUE	
SNU216_PC5_02	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	2	0.01%	15.30%	SSSAPLIHGLSDLSQVFQPYTLR	R	T	95.00%	3.04	0.187	0	0	1	0	2	2,596.28	23	45	TRUE	
SNU216_PC5_02	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	100.00%	2	2	2	0.01%	11.50%	DIIRQPSEEEIIK	K	L	95.00%	2.93	0.221	0	1	0	0	2	1,649.81	131	143	TRUE	
SNU216_PC5_02	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	100.00%	2	2	2	0.01%	11.50%	YKDIIRQPSEEEIIK	K	L	84.20%	3.1	0.12	0	0	1	0	2	1,940.97	129	143	TRUE	
SNU216_PC5_02	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	98.80%	1	1	1	0.01%	2.02%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	4.35	0.24	0	1	0	0	2	2,653.07	108	131	TRUE	
SNU216_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELK	K	R	95.00%	5.09	0.0253	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELKR	K	R	95.00%	5.79	0.0366	0	0	1	0	2	2,182.98	46	64	TRUE	
SNU216_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELK	R	R	95.00%	3.1	0.463	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216_PC5_02	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELKR	R	R	95.00%	2.99	0.373	0	1	0	0	2	1,811.78	49	64	TRUE	
SNU216_PC5_02	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	95.00%	2.54	0.339	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216_PC5_02	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	2	2	2	0.01%	15.70%	KSPRPAGPQLFLPDPDPQR	R	G	95.00%	3.63	0.321	0	0	1	0	2	2,196.10	151	169	TRUE	
SNU216_PC5_02	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	2	2	2	0.01%	15.70%	RLAAAEETAVSPR	R	K	95.00%	2.75	0.401	0	0	1	0	2	1,450.71	138	150	TRUE	
SNU216_PC5_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	2	0.01%	14.50%	GRLSPVPVPR	R	A	95.00%	2.04	0.316	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216_PC5_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	2	2	0.01%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	4.57	0.474	0	0	0	1	2	3,607.45	259	290	TRUE	
SNU216_PC5_02	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.10%	2	2	2	0.01%	9.58%	SPARTPPSEEDSAEAER	R	L	82.90%	2.08	0.312	0	1	0	0	2	1,908.80	77	93	TRUE	
SNU216_PC5_02	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.10%	2	2	2	0.01%	9.58%	SRTPSASNDDQQE	R	-	95.00%	2.55	0.239	0	1	0	0	2	1,514.58	301	313	TRUE	
SNU216_PC5_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	2	2	2	0.01%	6.30%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.81	0.39	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216_PC5_02	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	2	2	2	0.01%	6.30%	PSSSPVIFAGGQDR	K	Y	95.00%	2.99	0.474	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216_PC5_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	7	0.04%	18.10%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	R	F	95.00%	5.38	0.492	0	0	1	0	2	3,671.51	94	122	TRUE	
SNU216_PC5_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	7	0.04%	18.10%	DWEDDSDEDMSNFDR	K	F	95.00%	3.25	0.486	0	5	0	0	2	1,971.62	108	122	TRUE	
SNU216_PC5_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	3	7	0.04%	18.10%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	3.12	0.24	0	0	1	0	2	3,472.37	96	122	TRUE	
SNU216_PC5_02	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	91.60%	5.59	0.0496	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216_PC5_02	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	100.00%	1	1	2	0.01%	1.35%	QPTPPFFGR	R	D	95.00%	2.22	0.465	0	2	0	0	2	1,126.51	204	212	TRUE	
SNU216_PC5_02	Similar to Protein phosphatase 1 regulatory subu	IPI00398922	20,965.20	100.00%	1	1	1	0.01%	12.60%	VYFQSPPGAAGEGPGGADDEGPVRR	R	Q	95.00%	3.19	0.272	0	0	1	0	2	2,566.14	80	104	TRUE	
SNU216_PC5_02	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	95.00%	6.4	0.0359	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216_PC5_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	4	0.02%	13.20%	DELHIVEEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.62	0.579	0	0	1	0	2	2,951.45	55	80	TRUE	
SNU216_PC5_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	4	0.02%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	K	V	95.00%	5.64	0.341	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC5_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	4	0.02%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.74	0.604	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.65	0.4	0	2	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.87	0.418	0	1	0	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	FKAEAPLPSPK	K	L	95.00%	2.2	0.218	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	GGVTGSPEASISGSK	K	G	95.00%	2.18	0.302	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	GHYEVTGSDDETGK	K	L	95.00%	2.71	0.518	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.45	0.0815	0	1	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.14	0.387	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	SKGHYEVTGSDDETGK	K	L	95.00%	2.97	0.523	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.27	0.333	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216_PC5_02	313 kDa protein	IPI00555610	312,537.10	100.00%	10	12	13	0.07%	2.94%	SNSFSDER	R	E	95.00%	1.41	0.381	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216_PC5_02	Density-regulated protein	IPI00306280	22,285.70	100.00%	2	3	3	0.02%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	5.39	0.627	0	1	1	0	2	2,797.24	69	94	TRUE	
SNU216_PC5_02	Density-regulated protein	IPI00306280	22,285.70	100.00%	2	3	3	0.02%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEKK	K	K	95.00%	4.55	0.406	0	0	1	0	2	2,925.34	69	95	TRUE	
SNU216_PC5_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	11	0.06%	63.50%	KEESEESDDDMGFGLFD	K	-	95.00%	3.51	0.538	0	7	0	0	2	2,029.73	99	115	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	11	0.06%	63.50%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	4.05	0.331	0	0	1	0	2	2,854.40	62	94	TRUE	
SNU216_PC5_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	11	0.06%	63.50%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	4.41	0.482	0	0	1	0	2	3,354.66	62	98	TRUE	
SNU216_PC5_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	4	5	11	0.06%	63.50%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.59	0.404	0	1	1	0	2	1,948.94	3	21	TRUE	
SNU216_PC5_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.7	0.484	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216_PC5_02	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	SIQDLTVTGTEPGQVSSR	R	S	95.00%	3.26	0.379	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216_PC5_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	3.26%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.74	0.346	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216_PC5_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	3.26%	IEEVLSPEGSPSKSPSKK	K	K	95.00%	3.5	0.29	0	0	1	0	2	1,978.97	636	653	TRUE	
SNU216_PC5_02	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	3.26%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	3.67	0.363	0	1	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC5_02	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	2	2	0.01%	2.39%	EQLQPHENGEGNSET	R	-	95.00%	3.3	0.537	0	1	0	0	2	1,748.68	1034	1048	TRUE	
SNU216_PC5_02	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	2	2	0.01%	2.39%	VRPPQEEQEREQLQPHENGEGNSET	R	-	95.00%	3.65	0.293	0	0	1	0	2	2,997.30	1024	1048	TRUE	
SNU216_PC5_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	3	0.02%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	4.56	0.635	0	2	0	0	2	2,304.83	179	197	TRUE	
SNU216_PC5_02	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	2	2	3	0.02%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.34	0.428	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	6	9	30	0.17%	16.80%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	4.9	0.513	0	8	5	0	2	2,517.99	234	254	TRUE	
SNU216_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	6	9	30	0.17%	16.80%	KVEEEQEADEEDVSEEEAESKEGTNK	K	D	95.00%	5.89	0.493	0	0	1	0	2	3,047.24	234	259	TRUE	
SNU216_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	6	9	30	0.17%	16.80%	QRSLGPSLATDKS	R	-	95.00%	3.32	0.451	0	1	0	0	2	1,439.69	268	280	TRUE	
SNU216_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	6	9	30	0.17%	16.80%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.91	0.621	0	11	1	0	2	2,389.89	235	254	TRUE	
SNU216_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	6	9	30	0.17%	16.80%	VEEEQEADEEDVSEEEAESKEGTNK	K	D	95.00%	4.75	0.446	0	0	1	0	2	2,919.14	235	259	TRUE	
SNU216_PC5_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	6	9	30	0.17%	16.80%	VEEEQEADEEDVSEEEAESKEGTNKDFPQN.	K	Q	95.00%	5.95	0.444	0	0	1	1	2	3,860.61	235	267	TRUE	
SNU216_PC5_02	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	5	5	0.03%	9.68%	KVMDSDEDDDY	R	-	95.00%	2.03	0.345	1	1	0	0	2	1,411.46	114	124	TRUE	
SNU216_PC5_02	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	5	5	0.03%	9.68%	RKVMDSDEDDDY	R	-	95.00%	1.92	0.322	0	1	0	0	2	1,583.56	113	124	TRUE	
SNU216_PC5_02	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	5	5	0.03%	9.68%	VMDSDEDDDY	K	-	95.00%	1.97	0.463	1	1	0	0	2	1,283.37	115	124	TRUE	
SNU216_PC5_02	KIAA1143	IPI00410618	17,483.50	100.00%	1	2	2	0.01%	17.50%	RIQPQPPDEDGDHSDKEDEQPQVVVLK	K	K	95.00%	4.68	0.463	0	0	1	1	2	3,178.47	37	63	TRUE	
SNU216_PC5_02	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	4	4	0.02%	8.20%	RKSLSDSESDDSK	K	S	95.00%	3.24	0.427	0	0	1	0	2	1,533.64	91	103	TRUE	
SNU216_PC5_02	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	4	4	0.02%	8.20%	SLSDSESDDSK	K	S	95.00%	2.41	0.499	1	1	0	0	2	1,249.45	93	103	TRUE	
SNU216_PC5_02	Chromobox protein homolog 3	IPI00297579	20,824.10	100.00%	3	4	4	0.02%	8.20%	SLSDSESDDSKSK	K	K	95.00%	2.14	0.329	0	1	0	0	2	1,464.57	93	105	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	GLGAGAGAGEESPATSLPR	R	M	95.00%	3.94	0.46	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.77	0.46	0	1	1	0	2	2,159.93	200	217	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	4.29	0.361	0	0	2	0	2	2,654.15	200	221	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	6	7	0.04%	18.80%	RGLGAGAGAGEESPATSLPR	R	M	95.00%	4.34	0.44	0	1	1	0	2	1,933.91	78	97	TRUE	
SNU216_PC5_02	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSER	R	E	95.00%	2.64	0.461	0	1	0	0	2	1,418.54	194	207	TRUE	
SNU216_PC5_02	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	2.78	0.394	0	3	0	0	2	1,724.60	194	209	TRUE	
SNU216_PC5_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.68	0.347	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC5_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLR	R	K	95.00%	1.8	0.275	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC5_02	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.58	0.264	0	0	0	1	2	3,571.71	182	214	TRUE	
SNU216_PC5_02	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	3	0.02%	24.40%	DHANYEEDENGDITPIK	R	A	95.00%	2.78	0.376	0	1	0	0	2	2,039.82	134	150	TRUE	
SNU216_PC5_02	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	2	2	3	0.02%	24.40%	HKAEEVEDETVELDVSDEEMAR	K	R	95.00%	5.87	0.44	0	0	2	0	2	2,640.10	95	116	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	3.69	0.419	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.51	0.603	0	2	2	0	2	2,375.94	172	191	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	4.04	0.399	0	1	1	1	2	2,504.04	172	192	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	4.75	0.608	0	2	1	0	2	2,115.85	47	66	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	5.24	0.584	0	1	1	0	2	2,484.10	44	66	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	LLKEGEEPTVYSDEEEPK	K	D	95.00%	3.84	0.347	0	1	1	0	2	2,171.96	169	186	TRUE	
SNU216_PC5_02	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.10%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.43	0.452	0	1	1	1	2	2,730.20	169	191	TRUE	
SNU216_PC5_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	AEEDEILNRSPR	K	N	86.00%	2.34	0.24	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC5_02	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	2	2	0.01%	5.24%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	3.03	0.227	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216_PC5_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	3	3	0.02%	4.57%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.88	0.529	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC5_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	3	3	0.02%	4.57%	KETQSPEQVKSEK	K	L	95.00%	2.79	0.307	0	0	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC5_02	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	3	3	0.02%	4.57%	LKDLFDYSPPLHK	K	N	88.20%	2.63	0.176	0	0	1	0	2	1,652.81	505	517	TRUE	
SNU216_PC5_02	RNA binding motif protein 25	IPI00004273	100,189.10	99.80%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVK	K	R	95.00%	2.76	0.318	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC5_02	RNA binding motif protein 25	IPI00004273	100,189.10	99.80%	2	2	2	0.01%	1.78%	LGASNSPGQPNSVKR	K	K	95.00%	2.62	0.383	0	1	0	0	2	1,591.76	672	686	TRUE	
SNU216_PC5_02	Serine/threonine-protein kinase Nek7	IPI00152658	34,551.90	99.80%	2	2	2	0.01%	10.30%	FFSSKTTAAHSLVGTPYYMSPER	R	I	95.00%	3.78	0.231	0	0	1	0	2	2,657.21	185	207	TRUE	
SNU216_PC5_02	Serine/threonine-protein kinase Nek7	IPI00152658	34,551.90	99.80%	2	2	2	0.01%	10.30%	MHACTASS	K	-	95.00%	0.792	0.709	1	0	0	0	2	1,120.23	295	302	TRUE	
SNU216_PC5_02	Isoform 1 of PEST-containing nuclear protein	IPI00291608	18,925.40	99.80%	1	2	4	0.02%	13.50%	TLSVAAAFNEDEDSEPEEMPPEAK	K	M	95.00%	4.4	0.497	0	3	1	0	2	2,686.11	106	129	TRUE	
SNU216_PC5_02	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	3	6	0.03%	41.10%	KLEKEEEEGISQESSEEEQ	K	-	95.00%	3.26	0.547	0	3	1	0	2	2,396.93	89	107	TRUE	
SNU216_PC5_02	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	3	6	0.03%	41.10%	KQPPVSPGTALVGSQKEPSEVPTPK	R	R	95.00%	3.02	0.412	0	0	2	0	2	2,638.35	31	55	TRUE	
SNU216_PC5_02	FK506-binding protein 3	IPI00024157	25,177.40	100.00%	1	1	1	0.01%	6.25%	ETKSEETLDEGPPK	K	Y	95.00%	2.75	0.19	0	1	0	0	2	1,639.71	97	110	TRUE	
SNU216_PC5_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	9	0.05%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	4.37	0.256	0	1	1	0	2	2,319.81	56	73	TRUE	
SNU216_PC5_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	9	0.05%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.26	0.592	0	4	0	0	2	2,111.75	57	73	TRUE	
SNU216_PC5_02	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	5	9	0.05%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	3.65	0.482	0	2	1	0	2	2,347.81	57	74	TRUE	
SNU216_PC5_02	Plakophilin-3	IPI00026952	87,084.70	99.80%	1	1	1	0.01%	2.01%	AGGLDWPEATEVSPSR	R	T	95.00%	2.92	0.371	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC5_02	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	99.90%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.98	0.35	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	9	15	0.09%	23.00%	ASGQAFELILSPR	R	S	95.00%	2.84	0.469	0	1	1	0	2	1,468.72	14	26	TRUE	
SNU216_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	9	15	0.09%	23.00%	ELEKRASGQAFELILSPR	K	S	95.00%	3.51	0.405	0	0	1	0	2	2,124.09	9	26	TRUE	
SNU216_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	9	15	0.09%	23.00%	ESVPEFPLSPPK	K	K	95.00%	2.77	0.475	0	2	0	0	2	1,406.66	29	40	TRUE	
SNU216_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	9	15	0.09%	23.00%	ESVPEFPLSPPKKK	K	D	95.00%	2.96	0.346	0	1	2	0	2	1,662.85	29	42	TRUE	
SNU216_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	9	15	0.09%	23.00%	RASGQAFELILSPR	K	S	95.00%	3.85	0.322	0	0	3	0	2	1,624.82	13	26	TRUE	
SNU216_PC5_02	Stathmin	IPI00479997	17,171.80	100.00%	6	9	15	0.09%	23.00%	SKESVPEFPLSPPK	R	K	95.00%	3.54	0.456	0	2	2	0	2	1,621.79	27	40	TRUE	
SNU216_PC5_02	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	1	1	1	0.01%	3.09%	IPSKEEEADMSSPTQR	K	T	95.00%	2.98	0.367	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC5_02	hypothetical protein LOC56243	IPI00645403	214,116.70	99.10%	1	1	1	0.01%	0.52%	EPGTLVYIEK	K	P	81.90%	2.38	0.202	0	1	0	0	2	1,228.59	514	523	TRUE	
SNU216_PC5_02	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	1	1	1	0.01%	20.00%	PGPTPSGTNVGSSGRSPSK	-	A	95.00%	3.5	0.415	0	0	1	0	2	1,849.84	1	19	TRUE	
SNU216_PC5_02	Centrin-2	IPI00215928	19,739.60	99.30%	1	1	1	0.01%	9.30%	MSPKPELTEEQKQEIR	R	E	86.10%	2.6	0.164	0	0	1	0	2	2,022.96	19	34	TRUE	
SNU216_PC5_02	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	2	2	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	4.12	0.47	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216_PC5_02	FLJ20625 protein	IPI00016670	17,725.30	100.00%	1	1	1	0.01%	7.45%	KLLLDPSSPPTK	R	A	95.00%	2.88	0.167	0	1	0	0	2	1,375.72	20	31	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_02	Jun dimerization protein 2	IPI00103731	19,783.50	99.80%	2	2	2	0.01%	12.10%	TDSVKTPESEGNPLLEQLEK	R	-	95.00%	3.08	0.191	0	0	1	0	2	2,294.08	154	173	TRUE	
SNU216_PC5_02	Jun dimerization protein 2	IPI00103731	19,783.50	99.80%	2	2	2	0.01%	12.10%	TDSVKTPESEGNPLLEQLEKK	R	-	95.00%	3.09	0.327	0	0	1	0	2	2,422.18	154	174	TRUE	
SNU216_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.02%	4.15%	EKEISDDEAEEEK	R	G	95.00%	2.81	0.339	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.02%	4.15%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.41	0.476	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC5_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	4	4	0.02%	4.15%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.41	0.196	0	1	1	0	2	1,945.79	249	265	TRUE	
SNU216_PC5_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	2.89	0.187	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216_PC5_02	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	5.66	0.436	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216_PC5_02	syntaxin 7	IPI00289876,IPI00552913	29,815.60	99.80%	1	1	1	0.01%	5.75%	ASSRVSGSFPEDSSK	R	E	95.00%	2.97	0.331	0	1	0	0	2	1,620.69	124	138	TRUE	
SNU216_PC5_02	Hypothetical protein LEO1	IPI00103090	75,405.30	99.90%	2	2	2	0.01%	2.10%	KLTSDEEGEPSGK	K	R	95.00%	2.76	0.289	0	1	0	0	2	1,456.62	627	639	TRUE	
SNU216_PC5_02	Hypothetical protein LEO1	IPI00103090	75,405.30	99.90%	2	2	2	0.01%	2.10%	KLTSDEEGEPSGKR	K	K	95.00%	2.02	0.31	0	1	0	0	2	1,612.72	627	640	TRUE	
SNU216_PC5_02	40S ribosomal protein S8	IPI00216587,IPI00645201	21,880.70	100.00%	2	2	2	0.01%	13.00%	GAKLTPEEEEILNK	K	K	95.00%	3.41	0.321	0	1	0	0	2	1,650.80	106	119	TRUE	
SNU216_PC5_02	40S ribosomal protein S8	IPI00216587,IPI00645201	21,880.70	100.00%	2	2	2	0.01%	13.00%	ISSLLEEQFQQGK	K	L	87.50%	2.45	0.157	0	1	0	0	2	1,586.75	138	150	TRUE	
SNU216_PC5_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	19	0.11%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.8	0.605	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216_PC5_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	19	0.11%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	5.29	0.24	0	0	2	0	2	4,104.59	78	115	TRUE	
SNU216_PC5_02	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	5	19	0.11%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	7.53	0.233	0	0	7	8	2	4,260.69	78	116	TRUE	
SNU216_PC5_02	Myeloid leukemia factor 2	IPI00023095	28,147.90	99.80%	1	1	1	0.01%	4.84%	LAIQGPEDSPSR	R	Q	95.00%	2.62	0.33	0	1	0	0	2	1,349.61	230	241	TRUE	
SNU216_PC5_02	Transgelin-2	IPI00550363,IPI00647915	22,260.70	100.00%	1	1	1	0.01%	5.56%	NFSDNQLQEGK	R	N	95.00%	2.18	0.221	0	1	0	0	2	1,359.56	160	170	TRUE	
SNU216_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	3	5	5	0.03%	29.80%	GLGPSPAGDGPSGSGK	R	H	89.00%	1.98	0.247	0	1	0	0	2	1,420.61	21	36	TRUE	
SNU216_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	3	5	5	0.03%	29.80%	HSSYPAGTEDDEGMGEEPSPFR	R	G	95.00%	4.91	0.618	0	1	1	0	2	2,474.94	73	94	TRUE	
SNU216_PC5_02	Bcl2-antagonist of cell death	IPI00024291	18,391.90	100.00%	3	5	5	0.03%	29.80%	RMSDEFVDSFKK	R	G	95.00%	3.16	0.318	0	1	1	0	2	1,568.68	116	127	TRUE	
SNU216_PC5_02	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	1	1	1	0.01%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.7	0.524	0	0	1	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC5_02	Isoform 2 of Protein enabled homolog	IPI00374054,IPI00646954	63,924.90	99.80%	1	1	1	0.01%	2.46%	TNTMNGSKSPVISR	R	P	95.00%	2.87	0.306	0	1	0	0	2	1,571.72	500	513	TRUE	
SNU216_PC5_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	3.45	0.258	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216_PC5_02	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	4.17	0.297	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216_PC5_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	RGDSESEEEDEQDSEEVR	R	L	95.00%	2.78	0.437	0	2	0	0	2	2,075.77	12	28	TRUE	
SNU216_PC5_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	RRGDSESEEEDEQDSEEVR	R	L	95.00%	3.28	0.322	0	0	1	0	2	2,311.83	11	28	TRUE	
SNU216_PC5_02	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	3.51	0.36	0	0	1	0	2	1,887.86	250	265	TRUE	
SNU216_PC5_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	2	2	2	0.01%	2.67%	DMESPTKLDVTLAK	K	D	95.00%	3.11	0.322	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216_PC5_02	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	2	2	2	0.01%	2.67%	VGSLDNVGHLPAGGAVK	K	I	95.00%	3.25	0.373	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216_PC5_02	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	99.80%	2	3	3	0.02%	15.30%	EEDEENDNDNESDHDEADS	R	-	95.00%	3.35	0.652	0	1	0	0	2	2,287.69	113	131	TRUE	
SNU216_PC5_02	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	99.80%	2	3	3	0.02%	15.30%	REEDEENDNDNESDHDEADS	K	-	95.00%	4.29	0.6	0	1	1	0	2	2,443.79	112	131	TRUE	
SNU216_PC5_02	28S ribosomal protein S16, mitochondrial precurs	IPI00032872	15,345.40	99.80%	1	1	1	0.01%	9.49%	TDAEATDTEATET	K	-	95.00%	2.05	0.377	0	1	0	0	2	1,434.52	125	137	TRUE	
SNU216_PC5_02	Tetratricopeptide repeat protein KIAA0103	IPI00014149	34,834.80	100.00%	1	1	1	0.01%	4.71%	YFAQALKLNNRNMR	K	A	95.00%	2.77	0.207	0	1	0	0	2	1,818.88	214	227	TRUE	
SNU216_PC5_02	Ras-related protein Rab-8A	IPI00028481	23,669.70	99.90%	1	1	1	0.01%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	2.68	0.318	0	1	0	0	2	1,622.75	176	190	TRUE	
SNU216_PC5_02	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	1	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.78	0.405	0	0	1	0	2	2,581.01	131	153	TRUE	
SNU216_PC5_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	4	4	0.02%	5.34%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.55	0.49	0	0	1	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC5_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	4	4	0.02%	5.34%	HGSDPAFAPGPR	R	G	95.00%	2.41	0.318	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216_PC5_02	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	3	4	4	0.02%	5.34%	RLSLGQGDSTEAATEER	R	G	95.00%	3.65	0.422	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	IISTTASKTETPIVSK	K	S	95.00%	2.72	0.303	0	1	0	0	2	1,755.91	140	155	TRUE	
SNU216_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	KTVQSNSPISALAPTGK	R	E	95.00%	3.34	0.316	0	1	0	0	2	1,778.91	200	216	TRUE	
SNU216_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	SLSSSLDDTEVK	K	K	92.40%	2.08	0.228	0	1	0	0	2	1,360.59	156	167	TRUE	
SNU216_PC5_02	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	4	4	5	0.03%	18.90%	SLSSSLDDTEVKK	K	V	95.00%	2.89	0.45	0	2	0	0	2	1,488.68	156	168	TRUE	
SNU216_PC5_02	Isoform 1 of Acidic leucine-rich nuclear phosphop	IPI00007423	28,788.70	100.00%	1	1	1	0.01%	4.38%	KRETDDEGEDD	R	-	95.00%	2.09	0.441	0	1	0	0	2	1,388.49	241	251	TRUE	
SNU216_PC5_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	DLSPTLIDNSAAK	R	Q	92.30%	2.27	0.203	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216_PC5_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.48	0.417	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC5_02	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	4.1	0.372	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC5_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00013877,IPI00216493	36,927.60	100.00%	1	1	1	0.01%	3.18%	SEIKGFYDPPR	K	R	83.10%	1.85	0.271	0	1	0	0	2	1,388.62	94	104	TRUE	
SNU216_PC5_02	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	99.80%	2	2	2	0.01%	18.20%	TEESPASDEAGEKEAK	K	S	95.00%	2.31	0.302	0	1	0	0	2	1,757.71	82	97	TRUE	
SNU216_PC5_02	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	99.80%	2	2	2	0.01%	18.20%	TEESPASDEAGEKEAKSD	K	-	95.00%	3.09	0.392	0	1	0	0	2	1,959.77	82	99	TRUE	
SNU216_PC5_02	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	1	2	2	0.01%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	4.22	0.461	0	1	1	0	2	2,051.83	68	85	TRUE	
SNU216_PC5_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	3.99%	RPDPPDSDEDEDYER	R	E	95.00%	3.88	0.627	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC5_02	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	3.99%	RPDPPDSDEDEDYERER	R	R	95.00%	2.29	0.27	0	1	0	0	2	2,102.79	57	72	TRUE	
SNU216_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	28.20%	GLLSDSMTDVPVDTGVAAR	K	T	95.00%	3.88	0.378	0	1	0	0	2	1,983.91	16	34	TRUE	
SNU216_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	28.20%	MDSAGQDINLNSPNKGLLSDSMTDVPVDT	-	T	95.00%	4.46	0.477	0	0	1	0	2	3,664.59	1	34	TRUE	
SNU216_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	28.20%	NSATFKSFEDR	R	V	95.00%	2.27	0.24	0	1	0	0	2	1,381.58	183	193	TRUE	
SNU216_PC5_02	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	4	4	4	0.02%	28.20%	SWHDVQVSSAYVK	R	T	95.00%	2.72	0.312	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216_PC5_02	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	100.00%	2	2	7	0.04%	6.88%	ESLKEEDESDDDNM	K	-	95.00%	3.49	0.622	0	0	6	0	2	1,751.58	242	255	TRUE	
SNU216_PC5_02	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	100.00%	2	2	7	0.04%	6.88%	YAKESLKEEDESDDDNM	K	-	95.00%	2.37	0.323	0	1	0	0	2	2,097.78	239	255	TRUE	
SNU216_PC5_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	3.56	0.416	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216_PC5_02	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.23	0.235	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC5_02	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	3	4	0.02%	11.80%	EPVADEEEEDSDDDVEPITEFR	K	F	95.00%	3.18	0.326	0	1	0	0	2	2,645.03	92	113	TRUE	
SNU216_PC5_02	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	3	4	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.8	0.614	0	0	2	1	2	3,394.35	86	113	TRUE	
SNU216_PC6_02	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	2	2	0.02%	27.40%	PGPTPSGTNVGSSGR	-	S	94.30%	1.44	0.278	0	1	0	0	2	1,450.63	1	15	TRUE	
SNU216_PC6_02	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	2	2	0.02%	27.40%	TTSAGTGGMWR	R	F	95.00%	1.71	0.385	0	1	0	0	2	1,204.48	46	56	TRUE	
SNU216_PC6_02	Guanine nucleotide-binding protein G(I)/G(S)/G(O	IPI00221232	7,875.40	100.00%	1	1	1	0.01%	15.50%	TASTNNIAQAR	K	R	95.00%	1.94	0.301	0	1	0	0	2	1,226.55	4	14	TRUE	
SNU216_PC6_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.02%	15.50%	DLLHPSPEEEK	K	R	88.50%	1.75	0.18	0	1	0	0	2	1,373.60	13	23	TRUE	
SNU216_PC6_02	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	10,337.80	100.00%	2	2	2	0.02%	15.50%	DLLHPSPEEEKRK	K	H	95.00%	3.25	0.255	0	0	1	0	2	1,657.79	13	25	TRUE	
SNU216_PC6_02	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	99.80%	1	1	1	0.01%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	2.39	0.366	0	0	1	0	2	3,607.45	259	290	TRUE	
SNU216_PC6_02	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	1	1	1	0.01%	0.90%	TQPDGTSVPGEPASPISQR	R	L	93.80%	1.44	0.285	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC6_02	Isoform 1 of Obscurin	REVERSE_IPI00288940-R,RE	868,464.70	99.60%	2	2	2	0.02%	0.35%	ASTSVK	R	L	92.10%	0.896	0.351	1	0	0	0	2	832.229	5331	5336	TRUE	
SNU216_PC6_02	Isoform 1 of Obscurin	REVERSE_IPI00288940-R,RE	868,464.70	99.60%	2	2	2	0.02%	0.35%	YWQVAKPAPRFDCSLVVSQLER	K	G	95.00%	1.54	0.332	0	0	1	0	2	2,729.33	5467	5488	TRUE	
SNU216_PC6_02	Septin-2	IPI00014177	41,488.20	99.80%	1	1	1	0.01%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	3.48	0.411	0	0	1	0	2	2,517.05	210	229	TRUE	
SNU216_PC6_02	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	1	1	1	0.01%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	2.02	0.32	0	1	0	0	2	1,488.66	416	429	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC6_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	2	2	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	5.5	0.181	0	0	1	0	2	4,288.01	210	250	TRUE	
SNU216_PC6_02	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	2	2	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	2.71	0.528	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216_PC6_02	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	99.80%	1	1	1	0.01%	1.09%	GSYGSDAEEEEYR	R	Q	95.00%	1.53	0.465	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC6_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.04%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	3.98	0.633	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC6_02	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.04%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	2.26	0.521	0	1	0	0	2	2,389.89	235	254	TRUE	
SNU216_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	99.80%	2	2	2	0.02%	8.17%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	2.43	0.321	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC6_02	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	99.80%	2	2	2	0.02%	8.17%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	2.72	0.383	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216_PC6_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	2	0.02%	31.30%	KEESEESDDDMGFGLFD	K	-	95.00%	2.93	0.41	0	1	0	0	2	2,029.73	99	115	TRUE	
SNU216_PC6_02	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	2	0.02%	31.30%	YVASYLLAALGGNSSPSAK	R	D	95.00%	2.89	0.466	0	1	0	0	2	1,948.94	3	21	TRUE	
SNU216_PC6_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	3	3	0.04%	8.23%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	2.3	0.348	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216_PC6_02	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	3	3	0.04%	8.23%	VVDYSQFQESDDADEDYGR	K	D	95.00%	1.95	0.537	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216_PC6_02	BET1-like protein	IPI00009772,IPI00396263	11,137.60	100.00%	2	2	2	0.02%	15.30%	AQSPGAVEEILDR	R	E	95.00%	2.65	0.478	0	1	0	0	2	1,464.67	7	19	TRUE	
SNU216_PC6_02	BET1-like protein	IPI00009772,IPI00396263	11,137.60	100.00%	2	2	2	0.02%	15.30%	AQSPGAVEEILDRENKR	R	M	95.00%	2.45	0.205	0	0	1	0	2	1,991.95	7	23	TRUE	
SNU216_PC6_02	Stathmin	IPI00479997	17,171.80	99.80%	1	1	1	0.01%	9.46%	SKESVPEFPLSPPK	R	K	95.00%	1.87	0.392	0	1	0	0	2	1,621.79	27	40	TRUE	
SNU216_PC6_02	Prostaglandin E synthase 3	IPI00015029	18,697.90	99.80%	1	1	1	0.01%	9.38%	DWEDDSDEDMSNFDR	K	F	95.00%	1.39	0.652	0	1	0	0	2	1,955.63	108	122	TRUE	
SNU216_PC6_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.06%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	3.4	0.392	0	0	1	0	2	2,951.45	55	80	TRUE	
SNU216_PC6_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.06%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4	0.351	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC6_02	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	4	5	0.06%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	5.55	0.58	0	0	2	1	2	3,735.89	46	80	TRUE	
SNU216_PC6_02	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	1	1	1	0.01%	9.68%	RKVMDSDEDDDY	R	-	95.00%	1.43	0.394	0	1	0	0	2	1,567.56	113	124	TRUE	
SNU216_PC6_02	Small acidic protein	IPI00003419	20,332.70	99.80%	1	1	1	0.01%	12.60%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	3.97	0.661	0	1	0	0	2	2,514.99	15	37	TRUE	
SNU216_PC6_02	23 kDa protein	IPI00002821,IPI00069693,IP	23,158.90	99.50%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	89.70%	1.59	0.178	0	1	0	0	2	978.5385	132	140	TRUE	
SNU216_PC6_02	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	1.66	0.289	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC6_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	2	2	2	0.02%	2.35%	IEDVGSDEEDDSGKDK	K	K	95.00%	2.94	0.475	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC6_02	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	2	2	2	0.02%	2.35%	IEDVGSDEEDDSGKDKK	K	K	95.00%	2.07	0.36	0	1	0	0	2	1,945.79	249	265	TRUE	
SNU216_PC6_02	mucin 16	IPI00103552	1,389,472.80	99.40%	1	1	3	0.04%	0.08%	ASPSM	S	A	88.10%	0.608	0.53	1	0	0	0	0	652.1449	2966	2970	TRUE	
SNU216_PC6_02	mucin 16	IPI00103552	1,389,472.80	99.40%	1	1	3	0.04%	0.08%	SATVM	L	V	95.00%	1.45	0.295	3	0	0	0	0	668.1762	993	997	TRUE	
SNU216_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	6	7	7	0.08%	2.09%	ASLGSLEGEAEAEASSPK	K	G	95.00%	1.98	0.249	0	1	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	6	7	7	0.08%	2.09%	GGVTGSPEASISGSK	K	G	95.00%	1.57	0.334	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	6	7	7	0.08%	2.09%	GHYEVTGSDDETGK	K	L	95.00%	1.77	0.362	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	6	7	7	0.08%	2.09%	GKGGVTGSPEASISGSK	K	G	89.30%	1.63	0.302	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	6	7	7	0.08%	2.09%	SKGHYEVTGSDDETGK	K	L	95.00%	2.79	0.363	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC6_02	313 kDa protein	IPI00555610	312,537.10	100.00%	6	7	7	0.08%	2.09%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.68	0.367	0	0	0	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC6_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.02%	1.97%	NRSAEEGELAESK	R	S	95.00%	2.3	0.212	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC6_02	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.02%	1.97%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	4.32	0.546	0	1	0	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC1_03	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	2	2	2	0.01%	0.45%	SLQQLAEER	R	S	95.00%	1.9	0.267	0	1	0	0	2	1,153.53	1217	1225	TRUE	
SNU216_PC1_03	Isoform 1 of Spectrin alpha chain, brain	IPI00413728	284,542.70	100.00%	2	2	2	0.01%	0.45%	WRSLQQLAEER	R	S	95.00%	2.19	0.315	0	1	0	0	2	1,495.71	1215	1225	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	HFSTLKDDDLVEFSDLESEDDERPR	R	S	95.00%	5.04	0.277	0	0	0	1	2	3,074.33	1272	1296	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	NTSSDNSDVEVMPAQSPR	R	E	95.00%	3.69	0.425	0	2	0	0	2	2,013.82	412	429	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	TASPLPLRPDAPVEK	R	S	82.40%	2.45	0.165	0	1	0	0	2	1,670.85	1858	1872	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	TASPLPLRPDAPVEKSPEETATQVPSLESLTLI	R	L	95.00%	4.97	0.195	0	0	1	0	2	3,581.84	1858	1890	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain-helicase-DNA-bindir	IPI00398992,IPI00719073	276,280.20	100.00%	5	5	6	0.04%	3.82%	VSPSDTTPLVSR	R	S	95.00%	2.67	0.281	0	1	0	0	2	1,338.63	1910	1921	TRUE	
SNU216_PC1_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	6	0.04%	4.33%	ALEEGDGSVSGSSPR	R	S	95.00%	3.52	0.394	0	1	0	0	2	1,527.63	418	432	TRUE	
SNU216_PC1_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	6	0.04%	4.33%	IDENSDKEMEVEESPEK	K	I	95.00%	3.93	0.517	0	2	2	0	2	2,087.84	493	509	TRUE	
SNU216_PC1_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	6	0.04%	4.33%	RPILQLSPPGPR	R	G	95.00%	2.36	0.288	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216_PC1_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	IKSSPSPEVVKPK	K	I	95.00%	2.3	0.218	0	1	0	0	2	1,555.75	636	648	TRUE	
SNU216_PC1_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	KGSDSSIPDEEK	R	M	95.00%	3.12	0.237	0	1	0	0	2	1,371.57	315	326	TRUE	
SNU216_PC1_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	LHKRSPPPETIK	K	S	95.00%	2.54	0.189	0	0	1	0	2	1,482.78	613	624	TRUE	
SNU216_PC1_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	100.00%	4	4	4	0.02%	2.24%	LTPPESQSPLHWLADLAEQK	K	A	95.00%	3.13	0.31	0	0	1	0	2	2,340.13	2000	2019	TRUE	
SNU216_PC1_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	8	0.05%	3.54%	SPSPEPIYNSEGK	R	R	93.00%	2.3	0.166	0	1	0	0	2	1,564.60	204	216	TRUE	
SNU216_PC1_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	8	0.05%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.58	0.324	0	0	3	0	2	2,926.25	191	216	TRUE	
SNU216_PC1_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	8	0.05%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	3.71	0.363	0	0	3	1	2	3,082.36	191	217	TRUE	
SNU216_PC1_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	3	3	0.02%	15.70%	AEDGATPSPSNETPK	K	K	95.00%	3	0.392	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC1_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	3	3	0.02%	15.70%	GEAAAERPGEAAVASSPSK	K	A	95.00%	3.69	0.433	0	1	0	0	2	1,864.84	11	29	TRUE	
SNU216_PC1_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	3	3	3	0.02%	15.70%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.07	0.355	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC1_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	2	2	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.7	0.32	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC1_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	100.00%	2	2	2	0.01%	9.33%	SPEPGQTWTR	R	E	95.00%	2.68	0.424	0	1	0	0	2	1,238.52	94	103	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	3.59	0.261	0	2	1	0	2	2,882.10	701	724	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	SEDESETEDEEEK	R	S	95.00%	2.39	0.357	0	1	0	0	2	1,635.54	668	680	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.2	0.597	0	0	1	0	2	2,607.96	668	688	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	4	5	7	0.04%	5.69%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	5.18	0.571	0	0	2	0	2	2,764.06	668	689	TRUE	
SNU216_PC1_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	99.80%	2	2	2	0.01%	12.80%	EVKAEEKSPISINVK	R	T	95.00%	2.66	0.316	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216_PC1_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	99.80%	2	2	2	0.01%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	5.13	0.523	0	0	1	0	2	2,591.25	92	117	TRUE	
SNU216_PC1_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	4	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	3.14	0.304	0	1	1	0	2	1,796.71	490	504	TRUE	
SNU216_PC1_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	4	4	0.02%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.35	0.194	0	1	1	0	2	2,161.82	488	504	TRUE	
SNU216_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.77%	AFKPEETSSNSDPPSPPVLNNSHPVPR	R	S	95.00%	3.92	0.422	0	0	1	1	2	2,980.38	641	667	TRUE	
SNU216_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.77%	KPISDNSFSSDEEQSTGPIK	R	Y	95.00%	2.69	0.213	0	0	1	0	2	2,325.95	1295	1314	TRUE	
SNU216_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.77%	LDSSPVSSPR	R	K	95.00%	1.93	0.243	0	1	0	0	2	1,124.50	946	955	TRUE	
SNU216_PC1_03	hypothetical protein LOC196441	IPI00175146	226,362.00	100.00%	4	5	5	0.03%	3.77%	TSSSSPANSDVEIDGIGR	K	I	95.00%	2.47	0.197	0	1	0	0	2	1,871.80	801	818	TRUE	
SNU216_PC1_03	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	2	2	2	0.01%	0.61%	ALSPVIPLIPR	R	D	95.00%	1.69	0.353	0	1	0	0	2	1,255.72	4461	4471	TRUE	
SNU216_PC1_03	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00297859,IPI00377244,IP	564,181.50	100.00%	2	2	2	0.01%	0.61%	LEGPVSPDVEPGKEETEESKK	K	R	95.00%	3.03	0.316	0	0	1	0	2	2,364.09	1391	1411	TRUE	
SNU216_PC1_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	2	4	6	0.04%	3.80%	PFSAPKPQTSPSPK	K	R	95.00%	2.57	0.18	0	1	0	0	2	1,548.75	298	311	TRUE	
SNU216_PC1_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	99.80%	2	4	6	0.04%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	3.57	0.463	0	2	2	1	2	1,917.95	294	311	TRUE	
SNU216_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	267,050.20	100.00%	7	8	9	0.06%	4.37%	ASESSSEEKDDYEIFVK	R	V	95.00%	3.42	0.375	0	0	1	0	2	2,042.85	1779	1795	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	267,050.20	100.00%	7	8	9	0.06%	4.37%	DIHLDLPSNNNLVSKDTEEPLPVKESDQTLA	K	E	95.00%	4.96	0.0808	0	0	0	1	2	4,121.07	1663	1699	TRUE	
SNU216_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	267,050.20	100.00%	7	8	9	0.06%	4.37%	DTEEPLPVKESDQTLAALLSPK	K	E	95.00%	6.55	0.576	0	1	2	0	2	2,461.21	1678	1699	TRUE	
SNU216_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	267,050.20	100.00%	7	8	9	0.06%	4.37%	EDDDVIVNKPHVSDEEEEEPPFYHHPFK	K	L	95.00%	4.47	0.375	0	0	1	0	2	3,457.49	2117	2144	TRUE	
SNU216_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	267,050.20	100.00%	7	8	9	0.06%	4.37%	ESDQTLAALLSPK	K	E	95.00%	2.46	0.223	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	267,050.20	100.00%	7	8	9	0.06%	4.37%	SAASPVVSSMPER	R	A	95.00%	2.44	0.394	0	1	0	0	2	1,397.61	1766	1778	TRUE	
SNU216_PC1_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	267,050.20	100.00%	7	8	9	0.06%	4.37%	SVESTSPEPSK	K	I	95.00%	1.66	0.297	0	1	0	0	2	1,227.51	278	288	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	AAKLSEGSQPAEEEEDQETPSR	R	N	95.00%	3.87	0.615	0	1	1	0	2	2,468.05	236	257	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	AESPAEKVPEESVLPLVQK	K	S	95.00%	4.46	0.518	0	1	1	0	2	2,130.07	488	506	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	ASLVALPEQTASEEETPPPLLTK	K	E	95.00%	3.52	0.403	0	1	1	0	2	2,501.24	399	421	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	EASSPPPHPQLHSEEEIEPMEGPAPPVLIQLS	K	E	95.00%	3.74	0.294	0	0	0	1	2	4,490.09	422	462	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.54	0.43	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	ISEDETER	R	N	95.00%	1.54	0.38	0	1	0	0	2	1,058.40	897	904	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	KASLVALPEQTASEEETPPPLLTK	K	E	95.00%	2.92	0.276	0	0	1	0	2	2,629.34	398	421	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	LSEGSQPAEEEEDQETPSR	K	N	95.00%	3.42	0.511	0	2	0	0	2	2,277.84	239	257	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	RLSQPESAEK	R	H	83.90%	1.95	0.198	0	0	1	0	2	1,224.56	708	717	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.21	0.445	0	0	1	1	2	3,598.73	873	904	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	SLSPGVSR	K	D	95.00%	1.42	0.354	0	2	0	0	2	962.3744	655	662	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	SSSISEEKGDSDDEKPR	K	K	95.00%	1.97	0.352	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	TAQVPSPPR	R	G	95.00%	2.3	0.445	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC1_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	14	18	21	0.13%	15.50%	TTSPLEEEER	K	E	95.00%	2.25	0.364	0	1	0	0	2	1,270.52	363	372	TRUE	
SNU216_PC1_03	Ribosome biogenesis protein BOP1	IPI00028955	83,629.30	99.80%	1	1	1	0.01%	2.14%	IGDEYAEDSSDEEDIR	R	N	95.00%	3.01	0.512	0	1	0	0	2	2,002.68	118	133	TRUE	
SNU216_PC1_03	TBC1 domain family member 5	IPI00022450	89,007.10	99.80%	1	1	1	0.01%	1.51%	EFTGSPPSSATK	R	K	95.00%	2.03	0.228	0	1	0	0	2	1,288.55	550	561	TRUE	
SNU216_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	7	10	0.06%	6.53%	GLQSLPTHDPSPLQR	K	Y	95.00%	3.17	0.449	0	0	1	0	2	1,725.83	1067	1081	TRUE	
SNU216_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	7	10	0.06%	6.53%	LLQETELVEPLTPSGAMPNQAQMR	R	I	95.00%	3.61	0.383	0	0	1	0	2	2,733.30	660	683	TRUE	
SNU216_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	7	10	0.06%	6.53%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.44	0.422	0	2	0	0	2	1,993.88	1024	1042	TRUE	
SNU216_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	7	10	0.06%	6.53%	SGGGDLTLGLEPSEEEAPRSPLAPSEGAGSD	R	G	95.00%	6.86	0.109	0	0	1	1	2	4,223.90	1024	1066	TRUE	
SNU216_PC1_03	Receptor tyrosine-protein kinase erbB-2 precurso	IPI00300384,IPI00654851	134,855.70	100.00%	5	7	10	0.06%	6.53%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	5.41	0.634	0	2	2	0	2	2,329.01	1043	1066	TRUE	
SNU216_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.24%	LSSSDSIGPDVTDILSDIAEEASK	R	L	95.00%	5.05	0.0131	0	1	0	0	2	2,529.15	769	792	TRUE	
SNU216_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.24%	NSSQSGGKPGSSPITK	K	H	95.00%	2.16	0.271	0	1	0	0	2	1,611.74	1145	1160	TRUE	
SNU216_PC1_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	100.00%	3	3	3	0.02%	4.24%	PSSLMNPSLSKPNISPSHSRPPGGSDK	K	L	95.00%	3.97	0.209	0	0	0	1	2	2,854.36	1178	1204	TRUE	
SNU216_PC1_03	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	5	5	0.03%	1.16%	HEDEQALLDQNSQTPPPSPFSVQAFNK	R	G	95.00%	5.35	0.491	0	0	1	0	2	3,104.40	2632	2658	TRUE	
SNU216_PC1_03	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	5	5	0.03%	1.16%	SKSDSYTLDPDTLR	R	K	95.00%	3.3	0.42	0	1	1	0	2	1,677.74	2831	2844	TRUE	
SNU216_PC1_03	Isoform 1 of Probable ubiquitin ligase protein MY	IPI00289776,IPI00607852	509,788.70	100.00%	3	5	5	0.03%	1.16%	SLSPNHNTLQTLK	R	S	95.00%	2.13	0.316	0	1	1	0	2	1,532.75	2749	2761	TRUE	
SNU216_PC1_03	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	99.80%	2	2	2	0.01%	2.37%	ESDKEDGRESPSYDTPSQR	K	V	95.00%	2.96	0.206	0	0	1	0	2	2,262.91	75	93	TRUE	
SNU216_PC1_03	Isoform 1 of Sodium bicarbonate cotransporter 3	IPI00328342,IPI00387156	137,162.60	99.80%	2	2	2	0.01%	2.37%	KHSDPHLLER	K	N	95.00%	2.57	0.39	0	0	1	0	2	1,311.62	240	249	TRUE	
SNU216_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	4	5	6	0.04%	3.13%	GPKPEPPGSGSPAPPR	R	R	95.00%	3.55	0.525	0	2	0	0	2	1,607.76	730	745	TRUE	
SNU216_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	4	5	6	0.04%	3.13%	GPKPEPPGSGSPAPPRR	R	R	88.40%	2.61	0.186	0	0	1	0	2	1,763.86	730	746	TRUE	
SNU216_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	4	5	6	0.04%	3.13%	KPSVSEEVQATPNK	R	A	95.00%	4.16	0.579	0	1	0	0	2	1,593.75	1105	1118	TRUE	
SNU216_PC1_03	hypothetical protein LOC23131	IPI00457284	164,200.50	100.00%	4	5	6	0.04%	3.13%	QEPGGSHGSETEDTGR	K	S	95.00%	2.42	0.446	0	1	1	0	2	1,723.66	645	660	TRUE	
SNU216_PC1_03	Kinesin family member 1B	IPI00029011,IPI00216252,IP	205,100.10	99.80%	2	3	3	0.02%	1.26%	GDSLILEHQWELEK	R	L	95.00%	2.85	0.206	0	1	0	0	2	1,776.82	1485	1498	TRUE	
SNU216_PC1_03	Kinesin family member 1B	IPI00029011,IPI00216252,IP	205,100.10	99.80%	2	3	3	0.02%	1.26%	GDSLILEHQWELEKLELLHEVEK	R	T	95.00%	3.19	0.355	0	0	1	1	2	2,867.42	1485	1507	TRUE	
SNU216_PC1_03	Phosphatidylserine synthase 1	IPI00010746	55,529.10	99.80%	2	3	4	0.02%	4.65%	GSEDSPPKHAGNNESHSSR	K	R	95.00%	3.61	0.399	0	0	2	1	2	2,072.84	438	456	TRUE	
SNU216_PC1_03	Phosphatidylserine synthase 1	IPI00010746	55,529.10	99.80%	2	3	4	0.02%	4.65%	GTKGSEDSPPKHAGNNESHSSR	K	R	95.00%	2.81	0.282	0	0	0	1	2	2,438.97	435	456	TRUE	
SNU216_PC1_03	Kinesin-like protein KIF23	IPI00293884	98,106.10	99.80%	1	1	1	0.01%	2.45%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	3.66	0.412	0	1	0	0	2	2,339.18	682	702	TRUE	
SNU216_PC1_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.80%	2	3	4	0.02%	13.70%	AHAWPSPYKDYEVK	R	K	95.00%	2.96	0.34	0	1	2	0	2	1,770.79	340	353	TRUE	
SNU216_PC1_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.80%	2	3	4	0.02%	13.70%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	82.20%	5.83	0.003	0	0	1	0	2	4,125.84	299	333	TRUE	
SNU216_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	8	0.05%	8.29%	APESDTGDEDQDQER	R	D	95.00%	3.57	0.598	0	3	0	0	2	1,771.63	575	589	TRUE	
SNU216_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	8	0.05%	8.29%	DEDGESGGQRSEAEEGEVR	R	T	95.00%	1.92	0.336	0	1	0	0	2	2,195.78	456	474	TRUE	
SNU216_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	8	0.05%	8.29%	DKSDSDTEGLLFSR	R	D	95.00%	3.05	0.432	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	8	0.05%	8.29%	GAPSQDDESGGIEDSPDR	K	G	89.70%	2.25	0.212	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	8	0.05%	8.29%	SDSDTEGLLFSR	K	D	95.00%	2.34	0.304	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216_PC1_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	6	6	8	0.05%	8.29%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.58	0.173	0	0	1	0	2	2,540.10	639	659	TRUE	
SNU216_PC1_03	CLN3 protein	IPI00010906	19,287.30	99.90%	2	2	2	0.01%	8.84%	RFSDSEGEETVPEPR	R	L	95.00%	2.62	0.325	0	1	0	0	2	1,814.76	10	24	TRUE	
SNU216_PC1_03	CLN3 protein	IPI00010906	19,287.30	99.90%	2	2	2	0.01%	8.84%	RRFSDSEGEETVPEPR	R	L	95.00%	3.94	0.384	0	0	1	0	2	1,970.86	9	24	TRUE	
SNU216_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	4	5	8	0.05%	2.34%	ITPPAAKPGSPQAK	R	S	95.00%	2.58	0.412	0	1	2	0	2	1,442.74	669	682	TRUE	
SNU216_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	4	5	8	0.05%	2.34%	SAQGSSSPVPSMVQKSPR	R	I	95.00%	2.96	0.298	0	0	1	0	2	1,909.88	651	668	TRUE	
SNU216_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	4	5	8	0.05%	2.34%	SPGSTPTTPTSSQAPQK	K	L	95.00%	3.49	0.506	0	3	0	0	2	1,751.79	430	446	TRUE	
SNU216_PC1_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	4	5	8	0.05%	2.34%	SPRITPPAAKPGSPQAK	K	S	95.00%	2.87	0.239	0	0	1	0	2	1,862.89	666	682	TRUE	
SNU216_PC1_03	Dynamin-1	IPI00413140,IPI00514850,IP	97,410.80	98.50%	1	1	1	0.01%	1.27%	RSPTSSPTPQR	R	R	95.00%	2.18	0.296	0	1	0	0	2	1,293.59	773	783	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	7	10	10	0.06%	4.47%	MPIEDSSPEKGR	R	E	95.00%	3.06	0.162	0	1	0	0	2	1,425.61	1190	1201	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	7	10	10	0.06%	4.47%	MPIEDSSPEKGREEAASK	R	G	95.00%	2.32	0.223	0	1	0	0	2	2,040.89	1190	1207	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	7	10	10	0.06%	4.47%	NDARSPGSISYLPSFFTK	R	L	95.00%	2.97	0.219	0	0	1	0	2	2,066.96	2180	2197	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	7	10	10	0.06%	4.47%	QQQLEEEAAKPPEPEKPVSPPPVEQK	K	H	95.00%	4.02	0.393	0	0	1	1	2	2,989.46	206	231	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	7	10	10	0.06%	4.47%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	4.24	0.481	0	0	1	1	2	2,522.20	2140	2161	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	7	10	10	0.06%	4.47%	SPGSISYLPSFFTK	R	L	95.00%	2.96	0.298	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	7	10	10	0.06%	4.47%	SPNREWEVLQPAPHQVITNLPEGVR	K	L	95.00%	4.64	0.485	0	0	1	1	2	2,946.46	999	1023	TRUE	
SNU216_PC1_03	Zinc finger protein 185	IPI00005688	49,186.50	99.80%	2	3	3	0.02%	7.22%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.21	0.553	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216_PC1_03	Zinc finger protein 185	IPI00005688	49,186.50	99.80%	2	3	3	0.02%	7.22%	QSSPSGSEQLVR	R	R	95.00%	2.61	0.372	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC1_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	99.80%	2	2	2	0.01%	3.08%	AATTATPAATTSPK	K	E	95.00%	2.86	0.336	0	1	0	0	2	1,368.64	1111	1124	TRUE	
SNU216_PC1_03	ras responsive element binding protein 1 isoform	IPI00465287,IPI00465288	187,551.70	99.80%	2	2	2	0.01%	3.08%	FSPFLQTAEDNTQDEVAGAPADHHGPSDE	K	L	95.00%	4.45	0.26	0	0	0	1	2	4,209.69	1193	1230	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	8	0.05%	3.21%	ASPPAESMSVYR	R	S	95.00%	1.9	0.352	0	1	0	0	2	1,374.58	1454	1465	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	8	0.05%	3.21%	DSAYISSSPLGSHQVFDFR	R	S	95.00%	4.29	0.0048	0	1	0	0	2	2,192.96	1361	1379	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	8	0.05%	3.21%	PSQGLPVIQSPPSSPPHR	R	D	95.00%	4.32	0.448	0	1	3	0	2	2,040.93	1343	1360	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	PREDICTED: hypothetical protein LOC26115 isofor	IPI00030466	210,116.80	100.00%	4	5	8	0.05%	3.21%	QIASDSPHASPK	R	H	95.00%	2.73	0.31	0	2	0	0	2	1,397.55	305	316	TRUE	
SNU216_PC1_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	2	2	2	0.01%	4.36%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	2.7	0.625	0	0	1	0	2	2,580.79	423	442	TRUE	
SNU216_PC1_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	2	2	2	0.01%	4.36%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.66	0.116	0	1	0	0	2	2,020.86	302	320	TRUE	
SNU216_PC1_03	Zinc finger protein 295	IPI00008137	118,871.60	100.00%	2	2	2	0.01%	2.63%	SFSASQSTDR	R	E	95.00%	1.79	0.292	0	1	0	0	2	1,165.45	409	418	TRUE	
SNU216_PC1_03	Zinc finger protein 295	IPI00008137	118,871.60	100.00%	2	2	2	0.01%	2.63%	SLSMDSQVPVYSPSIDLK	R	S	95.00%	3.08	0.303	0	1	0	0	2	2,045.95	343	360	TRUE	
SNU216_PC1_03	WW domain-binding protein 11	IPI00170786	69,999.90	99.50%	1	1	1	0.01%	2.34%	RRDEDMLYSPELAQR	R	G	89.20%	2.17	0.236	0	0	1	0	2	1,958.88	229	243	TRUE	
SNU216_PC1_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	99.60%	1	1	1	0.01%	2.57%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	3.63	0.211	0	1	0	0	2	2,483.14	428	450	TRUE	
SNU216_PC1_03	Cyclin G-associated kinase	IPI00298949	143,192.40	100.00%	1	1	1	0.01%	2.36%	ESESALMEDRDESEVSDEGGSPISSEGQEPR	K	A	95.00%	4.25	0.2	0	0	1	0	2	3,498.34	814	844	TRUE	
SNU216_PC1_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.80%	2	2	2	0.01%	3.84%	KVTSPLQSPTK	R	A	95.00%	2.19	0.357	0	1	0	0	2	1,265.65	900	910	TRUE	
SNU216_PC1_03	Pleckstrin homology domain containing, family A	IPI00419933	127,119.80	99.80%	2	2	2	0.01%	3.84%	TVPLFPHPPVPSLSTSESKPPPQPSPPTSPVR	K	T	95.00%	3.17	0.306	0	0	0	1	2	3,517.72	843	874	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	6	7	0.04%	4.92%	KSLSGSPLK	K	V	95.00%	2.51	0.317	0	1	0	0	2	996.5127	344	352	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	6	7	0.04%	4.92%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.96	0.416	0	2	1	0	2	1,868.75	1461	1477	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	6	7	0.04%	4.92%	NSKSPEEHLEEMMK	K	M	95.00%	2.53	0.206	0	1	1	0	2	1,768.73	358	371	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	4	6	7	0.04%	4.92%	SDVQEESEGSDTDDNKDSAAFEDNEVQDE	R	L	86.00%	5.64	0.0163	0	0	1	0	2	3,881.46	699	731	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	1	1	1	0.01%	2.91%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.47	0.299	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	8	0.05%	5.69%	EIQNGNLHESDSESVPR	K	D	95.00%	3.04	0.387	0	2	0	0	2	1,990.85	66	82	TRUE	
SNU216_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	8	0.05%	5.69%	KKEIQNGNLHESDSESVPR	K	D	95.00%	3.63	0.278	0	0	1	0	2	2,247.04	64	82	TRUE	
SNU216_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	8	0.05%	5.69%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.04	0.309	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	8	0.05%	5.69%	QKTENVFVDEPLIHATTYIPLMDNADSSPV\	K	E	95.00%	5.91	0.462	0	0	0	1	2	3,922.89	216	249	TRUE	
SNU216_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	8	0.05%	5.69%	QPTPPSEAAASK	K	K	95.00%	2.16	0.308	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216_PC1_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	6	7	8	0.05%	5.69%	TENVFVDEPLIHATTYIPLMDNADSSPVVDK	K	E	95.00%	4.79	0.482	0	0	1	1	2	3,666.74	218	249	TRUE	
SNU216_PC1_03	heterogeneous nuclear ribonucleoprotein U isofor	IPI00644079	90,585.20	100.00%	1	1	1	0.01%	3.88%	LQAALDEEAGGRPAMEPGNGSLDLGGDS	K	S	95.00%	3.93	0.275	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216_PC1_03	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	3	4	5	0.03%	0.65%	EASENETDMEDPR	K	E	95.00%	3.07	0.477	0	1	0	0	2	1,602.56	6359	6371	TRUE	
SNU216_PC1_03	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	3	4	5	0.03%	0.65%	QQSVESLAEEVK	R	D	95.00%	2.72	0.313	0	1	0	0	2	1,426.65	2779	2790	TRUE	
SNU216_PC1_03	Isoform 2 of Nesprin-2	IPI00239406	798,815.60	100.00%	3	4	5	0.03%	0.65%	RGSMSYLAAVEEEVEESSVK	R	S	95.00%	5.96	0.544	0	1	2	0	2	2,280.01	4106	4125	TRUE	
SNU216_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	5	5	5	0.03%	5.95%	DVEDMELSDVEDDGSK	R	I	95.00%	3.24	0.459	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	5	5	5	0.03%	5.95%	RMSGEPIQTVESIR	R	V	95.00%	2.51	0.26	0	0	1	0	2	1,682.79	1071	1084	TRUE	
SNU216_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	5	5	5	0.03%	5.95%	SATPEPVTDNR	K	D	95.00%	2.15	0.437	0	1	0	0	2	1,266.54	330	340	TRUE	
SNU216_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	5	5	5	0.03%	5.95%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	4.41	0.0861	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216_PC1_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	5	5	5	0.03%	5.95%	SGTPTQDEMMDKPTSSSVDTMSLLSK	R	I	95.00%	5.64	0.563	0	0	1	0	2	2,853.22	704	729	TRUE	
SNU216_PC1_03	Transcription repressor	IPI00382733	82,672.30	100.00%	2	2	2	0.01%	3.99%	IDGATQSSPAEPK	K	S	95.00%	2.33	0.282	0	1	0	0	2	1,380.60	651	663	TRUE	
SNU216_PC1_03	Transcription repressor	IPI00382733	82,672.30	100.00%	2	2	2	0.01%	3.99%	RGSGDTSISIDTEASIR	R	E	95.00%	3.02	0.303	0	0	1	0	2	1,844.84	86	102	TRUE	
SNU216_PC1_03	374 kDa protein	IPI00470478,IPI00642126	373,852.30	99.80%	1	1	1	0.01%	0.49%	DFATPSLHTSDQSPGK	R	H	95.00%	2.65	0.275	0	1	0	0	2	1,767.76	334	349	TRUE	
SNU216_PC1_03	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	NRPDSGVEEAWK	R	I	95.00%	3.49	0.411	0	1	0	0	2	1,467.63	883	894	TRUE	
SNU216_PC1_03	Periplakin	IPI00298057	204,649.90	100.00%	2	2	2	0.01%	1.31%	SIVVIHPDTGR	R	E	95.00%	2.84	0.209	0	1	0	0	2	1,273.63	1657	1667	TRUE	
SNU216_PC1_03	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	6.24%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	5.07	0.364	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216_PC1_03	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	6.24%	LLGPAPEDDGGHNDHSQPQASQDQDSHT	R	-	95.00%	4.49	0.27	0	0	1	0	2	3,557.52	1235	1267	TRUE	
SNU216_PC1_03	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	6.24%	RLLGPAPEDDGGHNDHSQPQASQDQDSH	R	-	95.00%	5.28	0.488	0	0	0	1	2	3,713.62	1234	1267	TRUE	
SNU216_PC1_03	Zinc finger protein 592	IPI00022460	137,553.70	100.00%	4	4	4	0.02%	6.24%	VLHSSNPVPLYAPNLSPPADSR	K	I	95.00%	5.2	0.558	0	0	1	0	2	2,411.18	558	579	TRUE	
SNU216_PC1_03	Rho guanine nucleotide exchange factor 11	IPI00157442,IPI00377085,IP	172,043.90	99.80%	1	1	1	0.01%	0.92%	TRNSGIWESPELDR	R	N	95.00%	3.57	0.428	0	0	1	0	2	1,739.78	1330	1343	TRUE	
SNU216_PC1_03	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.30%	2	2	2	0.01%	1.57%	MSMTGAGKSPPSVQSLAMR	K	L	95.00%	3.02	0.259	0	0	1	0	2	2,015.91	132	150	TRUE	
SNU216_PC1_03	Isoform 1 of Histone-lysine N-methyltransferase,	IPI00096972,IPI00220795,IP	19,864.30	99.30%	2	2	2	0.01%	1.57%	SPPSVQSLAMR	K	L	85.30%	1.56	0.262	0	1	0	0	2	1,252.58	140	150	TRUE	
SNU216_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	7	10	0.06%	5.27%	HDSSAPDPAPDSADEVMPEAVPEVASEPGI	K	T	95.00%	5.6	0.381	0	0	0	1	2	4,188.80	887	926	TRUE	
SNU216_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	7	10	0.06%	5.27%	QEAIPDLEDSPPVSDSEEQQESAR	R	A	95.00%	4.35	0.541	0	1	3	0	2	2,816.12	796	819	TRUE	
SNU216_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	7	10	0.06%	5.27%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	6.02	0.536	0	0	2	0	2	2,614.30	1454	1477	TRUE	
SNU216_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	7	10	0.06%	5.27%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	5.95	0.5	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	7	10	0.06%	5.27%	SPPEGDTTLFLSR	R	L	95.00%	2.41	0.226	0	1	0	0	2	1,499.68	1040	1052	TRUE	
SNU216_PC1_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	6	7	10	0.06%	5.27%	TASPLEHILQTLFGK	K	K	95.00%	3.4	0.448	0	1	0	0	2	1,734.88	1310	1324	TRUE	
SNU216_PC1_03	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	99.80%	1	1	1	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.66	0.283	0	0	1	0	2	2,565.01	131	153	TRUE	
SNU216_PC1_03	Neuropathy target esterase	IPI00640818	149,925.50	99.80%	2	2	2	0.01%	2.64%	DEGGSPEGASPSTASEMEEEK	R	S	95.00%	4.06	0.583	0	1	0	0	2	2,203.82	1325	1345	TRUE	
SNU216_PC1_03	Neuropathy target esterase	IPI00640818	149,925.50	99.80%	2	2	2	0.01%	2.64%	LFPSPGLPTRTSPVR	R	G	95.00%	2.97	0.23	0	0	1	0	2	1,704.88	342	356	TRUE	
SNU216_PC1_03	acetyl-Coenzyme A carboxylase alpha isoform 1	IPI00396015,IPI00472339	265,556.40	99.70%	1	2	2	0.01%	0.84%	FIIGSVSEDNSEDEISNLVK	R	L	95.00%	4.73	0.329	0	1	1	0	2	2,275.04	19	38	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	AKDDDDSDIPTAQR	K	K	95.00%	2.47	0.388	0	1	0	0	2	1,626.66	473	486	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	ATTPASTANSDVATIPTDTPLKEENEGFVK	K	V	84.50%	5.36	0.0234	0	0	1	0	2	3,184.49	260	289	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	5.47	0.584	0	0	2	0	2	2,585.34	199	222	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	LHQLSGSDQLESTAHSR	K	I	95.00%	3.71	0.394	0	0	2	0	2	1,945.88	179	195	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	NVSTGSAENEEKSEVQAIIESTPELDMDKDL	R	G	95.00%	6.3	0.498	0	0	1	1	2	3,893.75	313	347	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	SASQSSLDKLDQELK	R	E	95.00%	4.03	0.437	0	1	2	0	2	1,728.81	714	728	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	SASQSSLDKLDQELKEQQK	R	E	95.00%	4.03	0.459	0	0	1	0	2	2,242.06	714	732	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	SEVQAIIESTPELDMDKDLSGYKGSSTPTK	K	G	88.10%	6.11	0.0057	0	0	1	0	2	3,306.53	325	354	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	SHTSLKDELSDVSQGGSK	R	A	95.00%	4.2	0.412	0	0	1	0	2	1,954.88	242	259	TRUE	
SNU216_PC1_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	10	12	15	0.09%	17.80%	TKLHQLSGSDQLESTAHSR	R	I	95.00%	4.3	0.38	0	0	1	0	2	2,175.02	177	195	TRUE	
SNU216_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.02%	4.88%	LGAPENSGISTLER	R	G	90.40%	3.43	0.0238	0	1	0	0	2	1,523.71	14	27	TRUE	
SNU216_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.02%	4.88%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.93	0.553	0	1	0	0	2	2,173.84	878	897	TRUE	
SNU216_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.02%	4.88%	SSSPAPEFLASSPPDNK	K	S	95.00%	2.46	0.276	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216_PC1_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	4	4	0.02%	4.88%	SSSPAPEFLASSPPDNKSPDEATAADQESED	K	T	95.00%	5.47	0.0817	0	0	1	0	2	3,885.65	861	897	TRUE	
SNU216_PC1_03	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00218823	293,694.40	99.80%	2	3	3	0.02%	0.99%	ERPSGPESPVQGPR	R	I	95.00%	3.19	0.282	0	0	1	0	2	1,572.72	854	867	TRUE	
SNU216_PC1_03	Isoform 1 of Myeloid/lymphoid or mixed-lineage	IPI00218823	293,694.40	99.80%	2	3	3	0.02%	0.99%	GPVRSEDESVEAK	R	R	95.00%	2.53	0.223	0	1	1	0	2	1,482.65	840	852	TRUE	
SNU216_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	5	5	0.03%	2.38%	LDVTILSPSR	K	K	95.00%	2.7	0.121	0	1	0	0	2	1,180.60	977	986	TRUE	
SNU216_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	5	5	0.03%	2.38%	LVSPGSANETSSILVESVTR	R	S	95.00%	4.46	0.564	0	1	0	0	2	2,126.04	2452	2471	TRUE	
SNU216_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	5	5	0.03%	2.38%	QKDFLDGVYAFEYYPSTPGR	K	Y	95.00%	3.23	0.208	0	0	1	0	2	2,433.08	503	522	TRUE	
SNU216_PC1_03	Isoform 1 of Filamin-B	IPI00289334,IPI00382696	275,694.50	100.00%	4	5	5	0.03%	2.38%	YADEEIPRSPFK	K	V	95.00%	2.87	0.389	0	1	1	0	2	1,531.68	1497	1508	TRUE	
SNU216_PC1_03	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	99.10%	2	2	2	0.01%	3.72%	RPEPSTLENITDDKYATVSSPSK	K	S	81.80%	5.08	0.0356	0	0	1	0	2	2,615.22	461	483	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	OTU domain containing 4 protein isoform 1	IPI00399254	116,953.90	99.10%	2	2	2	0.01%	3.72%	TAADVVSPGANSVDSR	K	V	95.00%	2.83	0.349	0	1	0	0	2	1,625.72	934	949	TRUE	
SNU216_PC1_03	Cytoskeleton-associated protein 5	IPI00028275,IPI00472887	225,515.80	100.00%	1	1	1	0.01%	1.38%	HSTSGTDEGEDGDEPDDGSNDVVDLLPR	K	T	91.60%	5.75	0.0269	0	0	1	0	2	3,008.19	827	854	TRUE	
SNU216_PC1_03	Molecule interacting with Rab13	IPI00174962	93,442.20	98.60%	1	1	1	0.01%	1.85%	SPVPSPGSSSPQLQVK	R	S	95.00%	3.87	0.457	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216_PC1_03	Sperm specific antigen 2	IPI00386170	137,859.60	100.00%	1	1	2	0.01%	1.04%	SQSLPTTLLSPVR	R	V	95.00%	2.44	0.431	0	2	0	0	2	1,478.76	737	749	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	GISPVVSEHRK	K	Q	95.00%	2.69	0.425	0	0	1	0	2	1,288.64	781	791	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	MSSEGPPRMSPK	R	A	95.00%	2.32	0.414	0	1	0	0	2	1,383.58	614	625	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	3.36	0.227	0	0	1	0	2	2,454.13	755	776	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	4	4	4	0.02%	4.72%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.38	0.507	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	ADIDVSGPKVDVDVPDVNIEGPDAK	K	L	95.00%	4.46	0.343	0	0	1	0	2	2,644.24	1750	1774	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	ADIKSPSLDVTVPEAELNLETPEISVGGK	K	G	95.00%	4.42	0.484	0	0	1	0	2	3,088.53	2060	2088	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	AEAPLPSPK	K	L	95.00%	2.09	0.351	0	1	0	0	2	989.4705	2175	2183	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	AGLRVSAPEVSVGHK	K	G	95.00%	3.14	0.266	0	0	1	0	2	1,586.81	80	94	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	ASLGSLEGEAEAEASSPK	K	G	95.00%	4.08	0.424	0	4	3	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.74	0.366	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	EFSGPSTPTGTLEFEGGEVSLEGGK	R	V	92.70%	4.22	0.0035	0	1	0	0	2	2,592.14	2859	2883	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	FKAEAPLPSPK	K	L	95.00%	2.51	0.158	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	GGVTGSPEASISGSK	K	G	95.00%	2.74	0.409	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	GGVTGSPEASISGSKGDLK	K	S	95.00%	3.34	0.359	0	2	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	GHYEVTGSDDETGK	K	L	95.00%	2.54	0.435	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.44	0.439	0	0	4	1	2	2,602.17	2905	2929	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	GKGGVTGSPEASISGSK	K	G	95.00%	3.77	0.121	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	GPAFNMASPESDFGINLK	K	G	95.00%	3.33	0.371	0	1	0	0	2	1,974.87	2616	2633	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	ISAPNVDFNLEGPK	R	V	95.00%	2.7	0.492	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	ISIPDVDLDLKGPK	K	V	95.00%	3.21	0.346	0	0	1	0	2	1,589.82	1920	1933	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	ISMSEVDLNVAAPK	R	V	95.00%	3	0.446	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	MPSLEISAPK	K	V	95.00%	2.18	0.398	0	1	0	0	2	1,152.54	1977	1986	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	MSLPDVDLDLK	K	G	95.00%	1.67	0.298	0	1	0	0	2	1,325.61	820	830	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	MSLPDVDLDLKGPK	K	M	95.00%	2.18	0.268	0	1	0	0	2	1,607.78	820	833	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	MYFPDVEFDIKSPK	K	F	95.00%	2.86	0.34	0	0	1	0	2	1,795.80	2159	2172	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	SKGHYEVTGSDDETGK	K	L	95.00%	3.4	0.517	0	1	0	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.31	0.0818	0	0	1	2	2	2,817.29	2903	2929	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	95.00%	5.29	0.0629	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	SSKASLGSLEGEAEAEASSPK	K	G	95.00%	3.97	0.149	0	1	0	0	2	2,194.92	2816	2836	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	VDINTPDVDVHGPDWHLK	K	M	95.00%	3.22	0.209	0	0	1	0	2	2,136.98	1833	1850	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	VEAPSLDVHMDSPDINIEGPDVK	K	I	95.00%	3.52	0.381	0	0	1	0	2	2,557.15	2020	2042	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	VKTPEMIIQKPK	K	I	95.00%	2.56	0.319	0	1	0	0	2	1,491.80	241	252	TRUE	
SNU216_PC1_03	313 kDa protein	IPI00555610	312,537.10	100.00%	29	32	42	0.26%	12.00%	VSVGAPDLSLEASEGSIKLPK	K	M	95.00%	3.61	0.3	0	0	1	0	2	2,177.11	2456	2476	TRUE	
SNU216_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	GDSLKEPTSIAESSR	R	H	95.00%	3.63	0.449	0	1	1	0	2	1,656.75	325	339	TRUE	
SNU216_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	GVGSPEPGPTAPYLGR	R	S	95.00%	2.91	0.221	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	4.25	0.334	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	SKGSLEITESQSADAEPPPPPKPDLSR	K	Y	81.30%	4.71	0.0406	0	0	0	1	2	2,913.39	243	269	TRUE	
SNU216_PC1_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	5	6	6	0.04%	16.60%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.46	0.529	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC1_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	99.80%	1	1	1	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	2.75	0.338	0	0	1	0	2	1,287.66	9	19	TRUE	
SNU216_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	5.93%	EVAATEEDVTRLPSPTSPFSSLSQDQAATSK	K	A	95.00%	5.86	0.0798	0	0	1	0	2	3,329.54	641	671	TRUE	
SNU216_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	5.93%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	4.19	0.0962	0	1	0	0	2	2,128.98	652	671	TRUE	
SNU216_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	5.93%	SASVNKEPVSLPGIMR	R	R	95.00%	3.33	0.394	0	0	1	0	2	1,764.87	1157	1172	TRUE	
SNU216_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	5.93%	SHSPSASQSGSQLR	R	N	95.00%	2.47	0.406	0	1	0	0	2	1,508.65	1257	1270	TRUE	
SNU216_PC1_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	5	5	5	0.03%	5.93%	SRSTTELDDYSTNKNGNNK	K	Y	92.20%	2.8	0.192	0	0	1	0	2	2,223.95	1087	1105	TRUE	
SNU216_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	6	0.04%	9.94%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.21	0.431	0	2	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	6	0.04%	9.94%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.13	0.408	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	6	0.04%	9.94%	AKEVELVSE	K	-	90.10%	2.11	0.201	0	1	0	0	2	1,083.50	505	513	TRUE	
SNU216_PC1_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	6	0.04%	9.94%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.02	0.477	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	ALQHTESPSETNKPHSK	K	S	95.00%	3.08	0.337	0	0	0	1	2	1,970.90	94	110	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	DDSLDLSPQGR	R	L	80.90%	2.4	0.128	0	1	0	0	2	1,282.53	985	995	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	ESTDDESNPLGR	R	A	95.00%	2.65	0.392	0	1	0	0	2	1,399.54	1375	1386	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	HLAESESLLTSPPK	K	A	95.00%	2.87	0.501	0	1	0	0	2	1,588.76	932	945	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	KRSESPPAELPSLR	K	R	95.00%	3.05	0.381	0	0	1	0	2	1,726.79	308	321	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	RSESPPAELPSLR	K	R	95.00%	2.42	0.285	0	0	1	0	2	1,518.73	309	321	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	SESPPAELPSLR	R	R	95.00%	2.29	0.404	0	2	0	0	2	1,362.63	310	321	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	100.00%	8	8	9	0.06%	4.17%	YSPPRDDDKVDNQAK	K	S	95.00%	2.58	0.204	0	0	1	0	2	1,827.79	1015	1029	TRUE	
SNU216_PC1_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	DEILPTTPISEQK	K	G	83.60%	2.13	0.236	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC1_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	2	2	0.01%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	3.75	0.408	0	0	0	1	2	2,990.55	202	227	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	130,789.50	99.80%	2	2	2	0.01%	2.84%	HPPLYQAGLTPPLSPPK	R	S	95.00%	3.39	0.399	0	0	1	0	2	1,892.97	482	498	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC57479 isofor	IPI00738937,IPI00745321	130,789.50	99.80%	2	2	2	0.01%	2.84%	NLETLPSFSSDEEDSVAK	R	N	95.00%	2.22	0.212	0	1	0	0	2	2,127.84	560	577	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	ADGATSDDLDLHDDR	K	L	95.00%	2.7	0.272	0	0	1	0	2	1,695.65	805	819	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	4.6	0.539	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	4.4	0.424	0	1	2	0	2	2,290.07	266	286	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	DDISEIQSLASDHSGR	R	S	95.00%	3.08	0.375	0	2	1	0	2	1,809.77	287	302	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	EDSSGMHHENQTYPPYSPQAQPQPIHR	R	I	95.00%	3.68	0.277	0	0	0	1	2	3,211.37	883	909	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	HTSDYEDTDTEGGAYTDQELDETLNDEVGT	R	S	95.00%	5.5	0.0709	0	0	0	1	2	4,251.75	839	876	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	IDSPGFKPASQQK	R	A	87.40%	2.18	0.179	0	1	0	0	2	1,482.70	910	922	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	ISKPGAVSTPVK	R	H	95.00%	2.04	0.274	0	1	0	0	2	1,263.67	346	357	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	5.09	0.44	0	0	0	1	2	2,165.08	346	365	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	3.37	0.38	0	0	1	1	2	3,651.55	111	140	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	SFENKPPAHIAASHLSEPAKPAHSQNQSNF	R	G	95.00%	3.91	0.369	0	0	0	1	2	3,960.83	1366	1401	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	SSEPVREDSSGMHHENQTYPPYSPQAQPQ	R	I	95.00%	4.87	0.471	0	0	0	1	2	3,866.70	877	909	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	SVASSQPAKPTK	R	V	86.90%	1.89	0.202	0	1	0	0	2	1,360.59	175	186	TRUE	
SNU216_PC1_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	14	17	20	0.13%	14.80%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.91	0.387	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	7	8	0.05%	6.65%	EKPEEIQDPAALTSDAEQPSGFTFSFFDSDTK	R	D	94.70%	6.34	0.0202	0	0	1	0	2	3,614.57	897	928	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	7	8	0.05%	6.65%	EYDSGDTDEIIAMK	R	K	95.00%	3.2	0.444	0	2	0	0	2	1,746.62	249	262	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	7	8	0.05%	6.65%	EYDSGDTDEIIAMKK	R	N	95.00%	2.21	0.358	0	1	0	0	2	1,874.72	249	263	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	7	8	0.05%	6.65%	FLETDSEEEQEEVNEK	R	K	95.00%	3.05	0.287	0	1	0	0	2	2,114.77	759	774	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	7	8	0.05%	6.65%	NDREYDSGDTDEIIAMK	R	K	95.00%	2.69	0.276	0	1	1	0	2	2,131.79	246	262	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	100.00%	6	7	8	0.05%	6.65%	NSSPGEASLLEK	R	E	95.00%	2.63	0.406	0	1	0	0	2	1,311.58	971	982	TRUE	
SNU216_PC1_03	137 kDa protein	IPI00218136,IPI00515042	137,400.40	99.50%	2	2	2	0.01%	3.32%	SHSQASLAGPGPVDPSNR	R	S	90.20%	2.65	0.188	0	0	1	0	2	1,856.83	135	152	TRUE	
SNU216_PC1_03	137 kDa protein	IPI00218136,IPI00515042	137,400.40	99.50%	2	2	2	0.01%	3.32%	VASPGSTIDTAPLSSVDSLINK	K	F	95.00%	3.12	0.244	0	0	1	0	2	2,252.11	163	184	TRUE	
SNU216_PC1_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.75	0.32	0	3	2	0	2	1,673.69	221	235	TRUE	
SNU216_PC1_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	6	0.04%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.11	0.243	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216_PC1_03	pre-mRNA cleavage complex II protein Pcf11	IPI00016387	173,051.00	100.00%	2	2	2	0.01%	0.64%	SPIIHSPK	K	R	95.00%	1.91	0.27	0	1	0	0	2	958.4759	489	496	TRUE	
SNU216_PC1_03	pre-mRNA cleavage complex II protein Pcf11	IPI00016387	173,051.00	100.00%	2	2	2	0.01%	0.64%	SRSPIIHSPK	K	R	95.00%	2.44	0.25	0	0	1	0	2	1,201.61	487	496	TRUE	
SNU216_PC1_03	dystonin isoform 1	IPI00074148	629,787.60	100.00%	1	1	1	0.01%	0.22%	QKSFSEDVISHK	K	G	95.00%	2.39	0.311	0	0	1	0	2	1,484.68	1880	1891	TRUE	
SNU216_PC1_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	3	3	0.02%	0.94%	GRNDSGEENVPLDLTR	R	E	95.00%	2.6	0.25	0	1	1	0	2	1,851.82	17	32	TRUE	
SNU216_PC1_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.80%	2	3	3	0.02%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	3.14	0.302	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216_PC1_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	1	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	3.67	0.488	0	0	1	0	2	2,205.10	225	244	TRUE	
SNU216_PC1_03	Leukemia virus receptor 2	IPI00009504	70,393.40	100.00%	2	2	2	0.01%	3.68%	EGALSRVSDESLSK	K	V	95.00%	3.06	0.261	0	1	0	0	2	1,557.72	249	262	TRUE	
SNU216_PC1_03	Leukemia virus receptor 2	IPI00009504	70,393.40	100.00%	2	2	2	0.01%	3.68%	VSDESLSKVQEAESPVFK	K	E	95.00%	2.98	0.257	0	0	1	0	2	2,138.93	255	272	TRUE	
SNU216_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.67	0.418	0	0	3	0	2	2,279.98	667	686	TRUE	
SNU216_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	GLAGPPASPGK	K	A	95.00%	2.22	0.42	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.68	0.464	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216_PC1_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	4	4	6	0.04%	6.47%	KLQLERPVSPETQADLQR	K	N	87.60%	2.36	0.236	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC1_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	92.50%	6.58	0	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216_PC1_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.88	0.564	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216_PC1_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.08	0.31	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC1_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.2	0.346	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC1_03	Isoform 1 of Myosin-14	IPI00337335,IPI00607778,IP	203,128.10	100.00%	1	1	2	0.01%	1.65%	LEEGVASDEEAEEAQPGSGPSPEPEGSPPAH	R	-	95.00%	4.52	0.393	0	0	2	0	2	3,391.41	1747	1779	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	DKDVTLSPVK	K	A	95.00%	2.56	0.268	0	1	0	0	2	1,181.58	1525	1534	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	EQESDEEEEEEEEDEPSGATTR	K	S	95.00%	5.08	0.664	0	1	0	0	2	2,633.94	2983	3004	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	KEQESDEEEEEEEEDEPSGATTR	K	S	95.00%	4.35	0.507	0	0	1	0	2	2,762.03	2982	3004	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	4.04	0.381	0	0	1	0	2	2,619.03	2774	2794	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	QHYLSSEDEPDDNPDVLDSR	K	I	95.00%	3.89	0.389	0	0	1	0	2	2,490.93	2775	2794	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	RTSTPVIMEGVQEETDTR	R	D	95.00%	4.14	0.426	0	0	1	0	2	2,128.96	657	674	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	STADSGGEGLETAPK	K	S	95.00%	2.45	0.322	0	1	0	0	2	1,499.63	262	276	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	6.34	0.594	0	0	1	0	2	3,718.48	2973	3004	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	TDTGIVTVEQSPSSSK	K	L	83.30%	3.45	0.043	0	1	0	0	2	1,715.77	2895	2910	TRUE	
SNU216_PC1_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	10	10	11	0.07%	4.13%	YYSDSDDELTVEQR	K	R	95.00%	3.44	0.548	0	2	0	0	2	1,799.70	480	493	TRUE	
SNU216_PC1_03	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	2	2	2	0.01%	15.10%	GRESDEDTEDASETDLAKHDEEDYVEMK	R	E	95.00%	3.28	0.493	0	0	1	0	2	3,483.24	42	69	TRUE	
SNU216_PC1_03	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	100.00%	2	2	2	0.01%	15.10%	RPASPSSPEHLPATPAESPAQR	K	F	94.00%	3.68	0.128	0	0	1	0	2	2,443.08	235	256	TRUE	
SNU216_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	4	4	5	0.03%	4.29%	AQSNGSGNGSDSEMDTSSLER	K	G	95.00%	4.04	0.0774	0	1	0	0	2	2,208.83	1125	1145	TRUE	
SNU216_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	4	4	5	0.03%	4.29%	KVSIVSKPVLYR	R	T	95.00%	3.34	0.422	0	0	1	0	2	1,468.83	1148	1159	TRUE	
SNU216_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	4	4	5	0.03%	4.29%	NEEENIYSVPHDSTQGK	R	I	95.00%	3.28	0.143	0	0	1	0	2	2,026.84	1099	1115	TRUE	
SNU216_PC1_03	172 kDa protein	IPI00334715,IPI00477498,IP	172,233.80	100.00%	4	4	5	0.03%	4.29%	TSFSVGSDDELGPIR	R	K	95.00%	3.06	0.397	0	2	0	0	2	1,659.73	1173	1187	TRUE	
SNU216_PC1_03	Protein CASC3	IPI00289491	76,277.90	99.80%	2	3	3	0.02%	3.13%	QSGDGQESTEPVENK	K	V	95.00%	3.49	0.497	0	1	0	0	2	1,684.67	147	161	TRUE	
SNU216_PC1_03	Protein CASC3	IPI00289491	76,277.90	99.80%	2	3	3	0.02%	3.13%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	4.27	0.398	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216_PC1_03	Band 4.1-like protein 2	IPI00015973	112,587.80	99.80%	1	1	1	0.01%	3.18%	EVAENQQNQSSDPEEEKGSQPPPAAESQS	K	R	95.00%	3.28	0.476	0	0	1	0	2	3,533.53	29	60	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	SPEPEATLTFPFLDK	K	M	95.00%	3.17	0.471	0	1	0	0	2	1,771.82	706	720	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp451D112	IPI00177498,IPI00553043,IP	120,486.20	99.80%	2	2	2	0.01%	1.36%	VVKPKSPEPEATLTFPFLDK	K	M	95.00%	3.35	0.303	0	0	1	0	2	2,323.20	701	720	TRUE	
SNU216_PC1_03	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	3	3	0.02%	1.16%	LSEAVWQPEEHYSSSPEK	K	I	95.00%	3.51	0.282	0	1	1	0	2	2,182.93	904	921	TRUE	
SNU216_PC1_03	Protein DmX-like 1	IPI00294728	337,854.80	99.80%	2	3	3	0.02%	1.16%	WDSDNDEENEDVPISMK	K	E	95.00%	3.62	0.498	0	1	0	0	2	2,102.79	1968	1984	TRUE	
SNU216_PC1_03	Lupus La protein	IPI00009032	46,839.00	99.60%	2	2	3	0.02%	5.15%	FASDDEHDEHDENGATGPVK	K	R	91.90%	2.34	0.194	0	0	1	0	2	2,249.86	364	383	TRUE	
SNU216_PC1_03	Lupus La protein	IPI00009032	46,839.00	99.60%	2	2	3	0.02%	5.15%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	3.89	0.377	0	0	0	2	2	2,405.96	364	384	TRUE	
SNU216_PC1_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	2	2	0.01%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	4.69	0.482	0	0	1	0	2	2,873.37	59	85	TRUE	
SNU216_PC1_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	2	2	0.01%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	86.50%	3.59	0.0031	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216_PC1_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	2	2	2	0.01%	0.83%	KTPLALAGSPTPK	K	N	95.00%	2.3	0.293	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216_PC1_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	100.00%	2	2	2	0.01%	0.83%	TPLALAGSPTPK	K	N	93.60%	2.44	0.159	0	1	0	0	2	1,232.63	907	918	TRUE	
SNU216_PC1_03	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	99.20%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	83.50%	3.4	0.0535	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216_PC1_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	6.08%	GEIKDSSPSSSPSPK	K	G	92.90%	2.86	0.106	0	1	0	0	2	1,582.70	333	347	TRUE	
SNU216_PC1_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	6.08%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	95.00%	5.41	0.0627	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216_PC1_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	6.08%	RSSLLSLMTGK	R	K	95.00%	2.33	0.183	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC1_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.02%	6.08%	SPIMADLNLSLPSIPEVASDDER	K	I	95.00%	3.78	0.441	0	0	1	0	2	2,549.18	949	971	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	AETPTAAEDDNEGDKK	K	K	95.00%	2.52	0.361	0	1	1	0	2	1,770.71	299	314	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	KQSFDDNDSEELEDK	K	D	95.00%	2.75	0.331	0	1	0	0	2	1,878.73	105	119	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	KQSFDDNDSEELEDKDSK	K	S	95.00%	3.57	0.456	0	2	1	0	2	2,288.85	105	122	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	KWDGSEEDEDNSK	K	K	95.00%	3.63	0.349	0	1	0	0	2	1,618.59	160	172	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	KWDGSEEDEDNSKK	K	I	95.00%	3.06	0.47	0	1	1	0	2	1,746.69	160	173	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.49	0.532	0	2	4	0	2	2,113.87	206	224	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.36	0.338	0	2	2	0	2	2,080.79	106	122	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	VEMYSGSDDDDDFNK	K	L	95.00%	3.36	0.56	0	1	0	0	2	1,816.63	131	145	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.51	0.406	0	6	4	0	2	2,234.82	131	148	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	10	16	31	0.19%	6.97%	WDGSEEEDENSK	K	K	95.00%	2.58	0.364	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	2	2	2	0.01%	3.32%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	3.74	0.248	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	2	2	2	0.01%	3.32%	HRHSPTGPPGFPR	R	D	95.00%	2.66	0.231	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	10	0.06%	9.42%	DSAAPSPIPGADNLSADPVVSPPTSIPFK	R	S	95.00%	3.24	0.256	0	0	1	0	2	2,927.41	424	452	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	10	0.06%	9.42%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	R	95.00%	4.75	0.378	0	0	1	1	2	3,690.75	1093	1125	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	10	0.06%	9.42%	ERPESPMVPSEQVVEEAVPLPPQALTTSQD	R	K	95.00%	2.87	0.205	0	0	0	1	2	3,846.85	1093	1126	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	10	0.06%	9.42%	LSLTSDPEEGDPLALGPESPGEPQPPQLK	R	K	95.00%	4.46	0.284	0	0	1	0	2	3,078.46	1214	1242	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	10	0.06%	9.42%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.3	0.463	0	1	1	0	2	2,276.04	1072	1092	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	6	8	10	0.06%	9.42%	SSLSGDEEDELFK	R	G	95.00%	2.89	0.408	0	3	0	0	2	1,535.62	1279	1291	TRUE	
SNU216_PC1_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	5	0.03%	8.78%	AAESETPGKSPEK	K	K	95.00%	2.95	0.443	0	1	1	0	2	1,410.62	418	430	TRUE	
SNU216_PC1_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	5	0.03%	8.78%	ATNESEDEIPQLVPIGK	K	K	95.00%	2.37	0.289	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216_PC1_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	5	0.03%	8.78%	KSPAKSPNPSTPR	K	G	95.00%	2.57	0.377	0	0	1	0	2	1,446.71	391	403	TRUE	
SNU216_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	2.57%	EKTPATTPEAR	K	V	95.00%	1.78	0.261	0	1	0	0	2	1,360.55	1206	1216	TRUE	
SNU216_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	2.57%	IDTHPSPSHSSTVK	R	D	95.00%	2.81	0.301	0	0	1	0	2	1,572.71	1337	1350	TRUE	
SNU216_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	2.57%	KIDTHPSPSHSSTVK	R	D	95.00%	3.13	0.326	0	1	0	1	2	1,700.80	1336	1350	TRUE	
SNU216_PC1_03	Isoform 1 of THO complex subunit 2	IPI00158615	174,072.80	100.00%	4	5	5	0.03%	2.57%	TPVSGSLKSPVPR	K	S	95.00%	2.29	0.302	0	0	1	0	2	1,404.72	1308	1320	TRUE	
SNU216_PC1_03	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEK	R	K	95.00%	4.15	0.415	0	0	1	0	2	2,415.04	129	149	TRUE	
SNU216_PC1_03	Zinc finger protein 289, ID1 regulated	IPI00297322	56,721.00	99.80%	2	3	3	0.02%	4.22%	HGTDLWIDNMSSAVPNHSPEKK	R	D	95.00%	5.78	0.453	0	0	1	1	2	2,543.14	129	150	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	EAQQKVPDEEENEESDNEKETEK	K	S	95.00%	3.93	0.332	0	0	1	0	2	2,814.15	1173	1195	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	95.00%	4.01	0.009	0	1	0	0	2	2,784.31	1467	1492	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	4.29	0.407	0	1	2	0	2	2,366.08	1320	1340	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	KIKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.84	0.21	0	0	1	0	2	2,494.17	1319	1340	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	KTQMAEVLPSPR	K	G	95.00%	3.13	0.447	0	1	1	0	2	1,436.70	1285	1296	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	NENTEGSPQEDGVELEGLK	K	Q	95.00%	3.82	0.402	0	1	1	0	2	2,124.90	1322	1340	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	SKGESDDFHMDFDSAVAPR	K	A	95.00%	2.81	0.342	0	0	1	0	2	2,190.88	1572	1590	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	SVVSDLEADDVK	K	G	95.00%	2.49	0.409	0	1	0	0	2	1,356.59	1455	1466	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	SVVSDLEADDVKGSVPLSSSPPATHFPDETE	K	K	95.00%	5.37	0.371	0	0	1	2	2	4,041.92	1455	1492	TRUE	
SNU216_PC1_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	10	14	17	0.11%	7.28%	VPDEEENEESDNEKETEK	K	S	95.00%	3.84	0.438	0	2	1	0	2	2,229.86	1178	1195	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	AEPSEVDMNSPK	K	S	95.00%	2.43	0.313	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	EEPSQNDISPK	K	T	95.00%	2.6	0.212	0	1	0	0	2	1,323.55	81	91	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	3.93	0.421	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	KEEPSQNDISPK	K	T	95.00%	3.19	0.324	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.77	0.277	0	0	1	0	2	1,639.74	60	73	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.35	0.446	0	1	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	3.91	0.453	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216_PC1_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	11	0.07%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	4.52	0.376	0	1	1	0	2	2,119.98	114	131	TRUE	
SNU216_PC1_03	Isoform 1 of Hermansky-Pudlak syndrome 5 proti	IPI00010486	127,453.30	99.90%	2	2	2	0.01%	1.24%	EKRDSLGNEESVDK	K	T	89.60%	2.46	0.18	0	0	1	0	2	1,685.74	691	704	TRUE	
SNU216_PC1_03	Isoform 1 of Hermansky-Pudlak syndrome 5 proti	IPI00010486	127,453.30	99.90%	2	2	2	0.01%	1.24%	RDSLGNEESVDK	K	T	95.00%	3.26	0.426	0	1	0	0	2	1,428.60	693	704	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.80%	EDILENEDEQNSPPK	K	K	95.00%	3.02	0.339	0	1	0	0	2	1,836.75	42	56	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.80%	GHTASESDEQQWPEEK	R	R	95.00%	3.5	0.443	0	2	0	0	2	1,937.76	23	38	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.80%	LKEDILENEDEQNSPPK	R	K	95.00%	3.83	0.389	0	1	1	0	2	2,077.93	40	56	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.80%	LKEDILENEDEQNSPPKK	R	G	95.00%	3.94	0.205	0	1	1	0	2	2,206.03	40	57	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.80%	RGHTASESDEQQWPEEK	K	R	95.00%	3.76	0.38	0	0	1	0	2	2,093.86	22	38	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ23236	IPI00640318	14,280.90	100.00%	6	8	9	0.06%	28.80%	RLKEDILENEDEQNSPPK	K	K	95.00%	5.07	0.347	0	0	1	0	2	2,234.03	39	56	TRUE	
SNU216_PC1_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	3	3	0.02%	4.94%	RASDDGKLTDPSK	R	T	95.00%	2.74	0.213	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216_PC1_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	3	3	0.02%	4.94%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	2.9	0.294	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216_PC1_03	Histone deacetylase 2	IPI00289601	55,365.50	99.80%	1	2	2	0.01%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGE	R	I	95.00%	5.06	0.414	0	0	1	1	2	3,665.55	373	405	TRUE	
SNU216_PC1_03	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	99.90%	2	2	2	0.01%	1.42%	EVDPNDLYIVEPLKFSPEK	K	K	95.00%	5.24	0.324	0	0	1	0	2	2,312.11	1240	1258	TRUE	
SNU216_PC1_03	Chromosome 1 open reading frame 9	IPI00003441,IPI00008231	156,576.80	99.90%	2	2	2	0.01%	1.42%	EVDPNDLYIVEPLKFSPEKK	K	K	95.00%	4.52	0.281	0	0	1	0	2	2,440.21	1240	1259	TRUE	
SNU216_PC1_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	99.90%	1	1	1	0.01%	5.42%	AGDLLEDSPKRPK	R	E	95.00%	3.17	0.154	0	0	1	0	2	1,505.74	158	170	TRUE	
SNU216_PC1_03	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	2	3	3	0.02%	1.00%	SPILEEKDIPPLEFPK	R	S	95.00%	3.41	0.473	0	1	1	0	2	1,931.98	216	231	TRUE	
SNU216_PC1_03	fetal Alzheimer antigen isoform 2	IPI00376404	322,213.30	100.00%	2	3	3	0.02%	1.00%	VLDDVSIRSPETK	R	C	95.00%	2.81	0.323	0	1	0	0	2	1,538.75	1292	1304	TRUE	
SNU216_PC1_03	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	AHTPLNTPDPSTK	R	L	95.00%	2.43	0.222	0	1	0	0	2	1,458.66	1348	1360	TRUE	
SNU216_PC1_03	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	KSESPFRETEPLVSPHQDK	K	L	95.00%	3.1	0.262	0	0	1	1	2	2,291.07	238	256	TRUE	IPI00442150
SNU216_PC1_03	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	SESPFRETEPLVSPHQDK	K	L	95.00%	4.01	0.267	0	0	1	0	2	2,162.98	239	256	TRUE	IPI00442150
SNU216_PC1_03	huntingtin interacting protein B	IPI00307733	231,222.50	100.00%	4	5	5	0.03%	2.81%	VDSETNIEASKLPTSEPEADAEIEPK	K	E	95.00%	5.21	0.396	0	0	1	0	2	2,879.31	1435	1460	TRUE	
SNU216_PC1_03	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	3	4	4	0.02%	1.89%	DSSIIDPGTEQDLPSPENSSVK	R	E	95.00%	4.55	0.387	0	1	1	0	2	2,395.06	3392	3413	TRUE	
SNU216_PC1_03	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	3	4	4	0.02%	1.89%	EVLTPTSTSDNETR	R	D	95.00%	2.26	0.227	0	1	0	0	2	1,709.67	3378	3391	TRUE	
SNU216_PC1_03	Ubiquitin-specific proteinase 34	IPI00297593	404,204.70	100.00%	3	4	4	0.02%	1.89%	GPENPQVEVLSEEEGEEEEEEEDILSLAEEK	K	Y	95.00%	4.39	0.413	0	0	1	0	2	3,594.53	2478	2508	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	AEEEEASTEEEDKEGAVVSAPSVK	R	G	95.00%	4.29	0.499	0	0	1	0	2	2,680.08	682	705	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	AFAAVPTSHPPEDAPAQPPTPGPAASPEQL	R	E	95.00%	6.15	0.566	0	0	1	0	2	3,418.61	1323	1355	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	ALSPAELR	R	A	86.90%	1.95	0.194	0	1	0	0	2	936.4551	1484	1491	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	AQKEEEEEEEEGSPQEEEEEEEEENR	R	A	95.00%	4.31	0.528	0	0	1	0	2	3,130.17	657	681	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	ELSPEGPGK	R	E	95.00%	1.85	0.283	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	GSTPYKGDDEGIFISR	K	V	95.00%	2.45	0.208	0	1	0	0	2	1,821.81	747	762	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	HDHAVSLLTAASPTIALLLER	R	E	95.00%	4.42	0.461	0	0	1	0	2	2,308.21	928	948	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	LAEAPSPAPTPSPTPVEDLGPQTSTSPGRLSF	R	S	95.00%	7.11	0.0209	0	0	2	1	2	4,094.96	1536	1574	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	LALDGETLGEEEQEDEQPPWASPSPTSR	R	Q	95.00%	3.83	0.262	0	0	1	0	2	3,148.36	1416	1443	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	LPLLPPESPGPLR	R	Q	95.00%	2.09	0.289	0	1	0	0	2	1,465.78	846	858	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	LSPDFAEELR	R	S	95.00%	2.04	0.405	0	1	0	0	2	1,256.56	1565	1574	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	MVEPENAVTITPLRPEDDYSPR	R	E	95.00%	2.9	0.322	0	1	1	0	2	2,609.20	816	837	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	QSPASPPPLGGGAPVR	R	T	95.00%	2.59	0.387	0	2	0	0	2	1,567.76	1444	1459	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	RVSLVGADDLRK	K	M	95.00%	3.19	0.483	0	0	1	0	2	1,408.73	1376	1387	TRUE	
SNU216_PC1_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	15	17	19	0.12%	17.10%	SLEELLLDANQLR	R	E	95.00%	2.77	0.299	0	1	0	0	2	1,593.79	37	49	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	8	8	0.05%	2.93%	AVIVSSPK	K	A	95.00%	1.93	0.265	1	1	0	0	2	880.454	1396	1403	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	8	8	0.05%	2.93%	HLEAADKGHSPAQKPK	K	T	95.00%	3.55	0.434	0	1	1	1	2	1,793.87	596	611	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	8	8	0.05%	2.93%	IDLPEVQIEHDPELEKESPGLK	K	N	95.00%	4.52	0.378	0	0	1	1	2	2,595.26	1083	1104	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein 638	IPI00470596,IPI00607784	220,625.70	100.00%	4	8	8	0.05%	2.93%	SRSPMHYMYRPR	R	S	95.00%	2.61	0.244	0	0	0	1	2	1,660.72	508	519	TRUE	
SNU216_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAK	K	P	95.00%	3.55	0.568	0	1	0	0	2	1,957.77	1937	1956	TRUE	
SNU216_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	GAGDGSDEEVDGKADGAEAKPAE	K	-	95.00%	4.61	0.538	0	2	1	0	2	2,254.90	1937	1959	TRUE	
SNU216_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	KGAGDGSDEEVDGK	R	A	95.00%	3.45	0.499	0	1	0	0	2	1,443.56	1936	1949	TRUE	
SNU216_PC1_03	Myosin-9	IPI00019502	226,406.30	100.00%	4	6	8	0.05%	1.23%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	4.87	0.588	0	2	1	0	2	2,085.86	1936	1956	TRUE	
SNU216_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.32%	AFGPGLQGGSAGSPAR	K	F	95.00%	2.77	0.333	0	1	0	0	2	1,509.68	1071	1086	TRUE	
SNU216_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.32%	EGPYSISVLYGDEEVPRSPFK	R	V	95.00%	3.79	0.407	0	1	1	0	2	2,449.13	1515	1535	TRUE	
SNU216_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.32%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	4.68	0.415	0	0	1	0	2	2,547.16	2310	2332	TRUE	
SNU216_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.32%	GAGSYTIMVLFADQATPTSPIR	R	V	95.00%	3.69	0.411	0	1	1	0	2	2,376.13	841	862	TRUE	
SNU216_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.32%	IPEISIQDMTAQVTSPSGK	K	T	95.00%	5.53	0.392	0	1	0	0	2	2,081.98	2165	2183	TRUE	
SNU216_PC1_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	6	8	8	0.05%	4.32%	RLTVSSLQESGLK	R	V	95.00%	2.62	0.356	0	0	1	0	2	1,497.77	2333	2345	TRUE	
SNU216_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	8	0.05%	5.22%	AASSSSPGSPVASSPSR	R	L	95.00%	2.77	0.342	0	1	0	0	2	1,611.70	1776	1792	TRUE	
SNU216_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	8	0.05%	5.22%	ADAPDAGAQSDSELPSYHQNDVSLDR	R	G	95.00%	4.36	0.565	0	1	1	0	2	2,838.19	1289	1314	TRUE	
SNU216_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	8	0.05%	5.22%	GGQSDDDEDEGVPASYHTVSLQVSQDLLD	R	A	95.00%	6.22	0.259	0	0	0	1	2	4,145.84	1472	1508	TRUE	
SNU216_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	8	0.05%	5.22%	GYTSDSEVYTDHGR	R	P	95.00%	2.58	0.238	0	1	0	0	2	1,666.64	1315	1328	TRUE	
SNU216_PC1_03	Golgi-specific brefeldin A-resistance guanine nucl	IPI00021954	206,450.60	100.00%	5	7	8	0.05%	5.22%	GYTSDSEVYTDHGRPGK	R	I	95.00%	2.68	0.357	0	1	2	0	2	1,948.81	1315	1331	TRUE	
SNU216_PC1_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	4	4	0.02%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.51	0.405	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC1_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	4	4	0.02%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.67	0.271	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216_PC1_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	4	4	0.02%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	2.53	0.517	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216_PC1_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	4	4	0.02%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.78	0.243	0	0	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC1_03	Matrin-3	IPI00017297	94,626.70	100.00%	3	4	4	0.02%	4.25%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	4.48	0.45	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216_PC1_03	Matrin-3	IPI00017297	94,626.70	100.00%	3	4	4	0.02%	4.25%	SYSPDGKESPSDK	R	K	94.40%	2.17	0.261	0	1	0	0	2	1,556.56	596	608	TRUE	
SNU216_PC1_03	Matrin-3	IPI00017297	94,626.70	100.00%	3	4	4	0.02%	4.25%	SYSPDGKESPSDKK	R	S	95.00%	2.48	0.289	0	0	1	0	2	1,604.68	596	609	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.92	0.258	0	0	2	0	2	2,429.15	976	997	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	DNSPPPAFKPEPPK	R	A	95.00%	2.92	0.401	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	DSQQTLINIPSLNDSDSEIEDISEIESNR	R	S	86.40%	4.49	0.0616	0	0	1	0	2	3,341.49	384	412	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	ERPSSREDTPSR	K	L	95.00%	2.36	0.347	0	0	1	0	2	1,576.62	437	448	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	GSYGSDAEEEEYR	R	Q	95.00%	2.86	0.521	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.96	0.218	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.88	0.534	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	RHQYSDYDYHSSSEK	R	L	95.00%	4.37	0.374	0	1	1	1	2	1,981.77	420	434	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	SFSPEER	R	R	95.00%	1.93	0.362	0	1	0	0	2	931.3557	413	419	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	SIDQDYER	R	A	95.00%	1.59	0.31	1	0	0	0	2	1,105.42	244	251	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	4.44	0.516	0	0	2	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC1_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	12	15	18	0.11%	14.40%	SRSWEDSPER	R	G	95.00%	2.3	0.173	0	1	0	0	2	1,328.53	168	177	TRUE	
SNU216_PC1_03	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	4	4	4	0.02%	3.11%	AASSPSNPAALPVASDSSPMGSK	K	T	95.00%	3.71	0.326	0	1	0	0	2	2,208.98	1056	1078	TRUE	
SNU216_PC1_03	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	4	4	4	0.02%	3.11%	DFSPGLFEDPSVAFATPDPK	K	K	95.00%	2.97	0.322	0	1	0	0	2	2,216.98	632	651	TRUE	
SNU216_PC1_03	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	4	4	4	0.02%	3.11%	ETDSPSTPGKDQR	K	S	95.00%	2.44	0.258	0	1	0	0	2	1,497.62	1081	1093	TRUE	
SNU216_PC1_03	Isoform 2 of Retinoic acid-induced protein 1	IPI00449923,IPI00449924,IP	198,278.40	100.00%	4	4	4	0.02%	3.11%	TKETDSPSTPGKDQR	K	S	95.00%	2.64	0.294	0	0	1	0	2	1,726.76	1079	1093	TRUE	
SNU216_PC1_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	5.17	0.4	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216_PC1_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	42,508.30	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	R	S	95.00%	3.8	0.368	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216_PC1_03	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	2	2	2	0.01%	1.04%	GGSWIQEINVAEK	K	N	95.00%	2.13	0.236	0	1	0	0	2	1,510.69	4024	4036	TRUE	
SNU216_PC1_03	Isoform 1 of DNA-dependent protein kinase catal	IPI00296337	469,095.50	100.00%	2	2	2	0.01%	1.04%	SSFDWLTGSSTDPLVDHTSPSSDSLLFAHK	R	R	92.70%	5.75	0.0393	0	0	0	1	2	3,314.49	2654	2683	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	DSSFTEVPRSPK	R	H	95.00%	3.18	0.398	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	EMEKSFDEQNVPK	R	R	95.00%	3.78	0.335	0	2	0	0	2	1,660.69	309	321	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.4	0.424	0	1	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	SNEEEETSDSSLEK	R	Q	95.00%	2.7	0.232	0	1	0	0	2	1,663.62	56	69	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	SPSFGDPQLSPEAR	R	P	95.00%	2.63	0.462	0	3	0	0	2	1,647.65	261	274	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	SPSFGDPQLSPEARPR	R	C	95.00%	2.61	0.305	0	2	1	0	2	1,900.80	261	276	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.41	0.546	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	3.94	0.513	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216_PC1_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	9	12	16	0.10%	6.60%	YGSFEEAEASYPILNR	K	A	95.00%	3.07	0.316	0	1	1	0	2	1,925.83	540	555	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.13	0.445	0	0	1	0	2	3,599.65	366	400	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	5.34	0.403	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	3	3	0.02%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.38	0.288	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC1_03	Putative eukaryotic translation initiation factor 3 s	IPI00024425	146,828.50	100.00%	1	1	1	0.01%	1.76%	SEDPPGQEAGSEEEGSSASGLAK	K	V	95.00%	4.62	0.185	0	1	0	0	2	2,298.92	654	676	TRUE	
SNU216_PC1_03	Isoform 1 of Filamin-C	IPI00178352,IPI00413958	291,286.30	100.00%	1	1	1	0.01%	0.33%	LGSFGSITR	R	Q	93.90%	1.6	0.278	0	1	0	0	2	1,017.48	2231	2239	TRUE	
SNU216_PC1_03	Ferritin heavy chain	IPI00554521	21,095.00	100.00%	1	1	2	0.01%	14.30%	KMGAPESGLAEYLFDKHTLGDSDNES	R	-	95.00%	4.01	0.178	0	0	2	0	2	2,891.24	157	182	TRUE	
SNU216_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	9	0.06%	6.15%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.95	0.591	0	1	0	0	2	2,433.86	225	246	TRUE	
SNU216_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	9	0.06%	6.15%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.86	0.549	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	9	0.06%	6.15%	KAEQGSEEEGEGEEEEEEGGESKADDPYAHI	K	K	95.00%	5.14	0.367	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	9	0.06%	6.15%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	5.03	0.428	0	0	1	0	2	2,174.04	104	122	TRUE	
SNU216_PC1_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	5	7	9	0.06%	6.15%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.55	0.48	0	1	2	0	2	2,045.94	105	122	TRUE	
SNU216_PC1_03	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	3	3	3	0.02%	3.19%	AKPVVSDFDSDEEQDER	K	E	95.00%	3.5	0.508	0	1	0	0	2	2,045.83	1563	1579	TRUE	
SNU216_PC1_03	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	3	3	3	0.02%	3.19%	GRPPAEKLSPNPPK	R	L	90.10%	2	0.248	0	1	0	0	2	1,567.80	1369	1382	TRUE	
SNU216_PC1_03	Isoform Short of Probable global transcription act	IPI00386718,IPI00513760,IP	181,283.00	100.00%	3	3	3	0.02%	3.19%	ISPIQKPQGLDPVEILQER	R	E	95.00%	3.11	0.531	0	0	1	0	2	2,240.17	328	346	TRUE	
SNU216_PC1_03	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	2	2	2	0.01%	1.61%	STPAPKEEEKVNEEQWSLR	R	E	95.00%	2.71	0.403	0	0	1	0	2	2,337.08	636	654	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Ubiquitin-protein ligase EDD1	IPI00026320,IPI00741894	309,353.70	100.00%	2	2	2	0.01%	1.61%	SVVDMDLDDTDDGDDNAPLFYQPGKR	R	G	95.00%	5.02	0.504	0	0	1	0	2	2,978.24	2486	2511	TRUE	
SNU216_PC1_03	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	2	2	3	0.02%	1.40%	AESDGEEKEEVKEELGR	K	P	95.00%	4.22	0.488	0	0	1	0	2	2,013.87	2599	2615	TRUE	
SNU216_PC1_03	Small subunit processome component 20 homolc	IPI00004970,IPI00738219	318,436.50	100.00%	2	2	3	0.02%	1.40%	SLSDNGQPGTPDPADSGGTSAK	K	E	95.00%	3.72	0.291	0	2	0	0	2	2,138.89	1732	1753	TRUE	
SNU216_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00396370,IPI00719752,IP	99,040.70	100.00%	1	1	1	0.01%	2.21%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.18	0.319	0	0	1	0	2	1,885.77	117	134	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ22346	IPI00028307	81,877.00	99.10%	1	1	1	0.01%	3.23%	NMTVEQLLTGSPTSPTVEPEKPTR	K	E	81.90%	4.39	0.0544	0	0	1	0	2	2,692.29	276	299	TRUE	
SNU216_PC1_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	99.80%	2	2	2	0.01%	8.08%	QERLSPEVAPPAHR	K	R	95.00%	2.99	0.261	0	0	1	0	2	1,666.81	31	44	TRUE	
SNU216_PC1_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	99.80%	2	2	2	0.01%	8.08%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	3.7	0.28	0	0	1	0	2	1,911.83	45	62	TRUE	
SNU216_PC1_03	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	99.80%	1	1	1	0.01%	5.91%	SLEPAENVHGAGGGAFPASQTPSKPASADC	R	G	95.00%	3.79	0.406	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	6	7	0.04%	4.87%	GDLSDVEEEEEEEEMDVDEATGAVK	R	K	95.00%	3.98	0.556	0	2	1	0	2	2,721.05	829	852	TRUE	
SNU216_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	6	7	0.04%	4.87%	GDLSDVEEEEEEEEMDVDEATGAVKK	R	H	95.00%	4.87	0.553	0	1	1	0	2	2,833.15	829	853	TRUE	
SNU216_PC1_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	6	7	0.04%	4.87%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	5.22	0.107	0	0	1	1	2	4,089.02	277	313	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	DGSLEDDEDEEDDLDEGVGGK	K	R	95.00%	3.68	0.534	0	1	0	0	2	2,317.84	1630	1650	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	EDPQARPLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	5.27	0.438	0	0	0	1	2	3,121.35	1851	1879	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	KNSSTDQGSDEEGSLQK	R	E	95.00%	4.22	0.231	0	1	0	0	2	1,889.78	1081	1097	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	NSSTDQGSDEEGSLQK	K	E	95.00%	3.35	0.426	0	1	0	0	2	1,761.68	1082	1097	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	NSSTDQGSDEEGSLQKEQESAMDK	K	H	95.00%	4.47	0.133	0	0	1	0	2	2,680.06	1082	1105	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	NSSTDQGSDEEGSLQKEQESAMDKHNLER	K	K	95.00%	4.62	0.22	0	0	0	1	2	3,329.39	1082	1110	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	PLEGSSSEDSPPEGQAPPSHSPR	R	G	95.00%	6.17	0.581	0	0	1	0	2	2,425.03	1857	1879	TRUE	
SNU216_PC1_03	Isoform 1 of General transcription factor 3C polyp	IPI00414481,IPI00414482	241,150.00	100.00%	8	8	8	0.05%	4.83%	RASWASENGETDAEGTQMTPAK	R	R	95.00%	4.28	0.45	0	0	1	0	2	2,417.01	1884	1905	TRUE	
SNU216_PC1_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	5.35%	MSADMSEIEAR	R	I	95.00%	1.92	0.378	0	1	0	0	2	1,319.50	388	398	TRUE	
SNU216_PC1_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	5.35%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	3.97	0.44	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	AAFGISDSYVDGSSFDPQR	R	R	95.00%	3.46	0.363	0	1	0	0	2	2,098.88	137	155	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	AGMSSNQSISSPVLDAVPR	K	T	95.00%	3.53	0.431	0	3	1	0	2	2,011.92	1394	1412	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	AGMSSNQSISSPVLDAVPRTPSR	K	E	95.00%	4.34	0.438	0	0	2	0	2	2,437.15	1394	1416	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	AGMSSNQSISSPVLDAVPRTPSRER	K	S	95.00%	4.23	0.148	0	0	1	0	2	2,802.26	1394	1418	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	AQTPPGPSLSGSK	K	S	91.70%	2.33	0.155	0	1	0	0	2	1,306.60	1001	1013	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	ARSRTPPSAPSQSR	R	M	86.60%	2.62	0.14	0	0	1	0	2	1,657.72	2405	2418	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	DGLPRTPSR	K	R	95.00%	1.88	0.284	0	1	0	0	2	1,078.50	1429	1437	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	DGLPRTPSRR	K	S	93.30%	1.97	0.208	0	0	1	0	2	1,234.61	1429	1438	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	DKFSPFPVQDRPESSLVFK	K	D	95.00%	3.27	0.241	0	0	2	0	2	2,303.11	1185	1203	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.97	0.385	0	0	3	0	2	2,259.04	1316	1334	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	ENSFGSPLEFR	R	N	95.00%	2.26	0.369	0	1	0	0	2	1,362.57	1324	1334	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	EQNSALPTSSQDEELMEVVEK	K	S	95.00%	4.17	0.474	0	1	2	0	2	2,443.06	1224	1244	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	4.9	0.033	0	2	0	0	2	2,715.18	304	329	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	GPSPEGSSSTESSPEHPPK	R	S	85.90%	3.6	0	0	1	0	0	2	1,973.81	1646	1664	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.02	0.353	0	3	3	0	2	2,136.83	433	451	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	5.77	0.438	0	1	3	1	2	2,932.38	374	401	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	MALPPQEDATASPPR	K	Q	95.00%	3.71	0.45	0	4	4	0	2	1,660.74	1168	1182	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	MALPPQEDATASPPRQK	K	D	95.00%	4.08	0.407	0	0	2	0	2	1,916.89	1168	1184	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	NHSGSRTPPVALNSSR	R	M	95.00%	2.59	0.277	0	0	1	1	2	1,759.82	2098	2113	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	PAVSLTLDQSQSQASLEAVEVPSMASSWG(	R	E	95.00%	5.49	0.37	0	0	0	1	2	4,071.88	1278	1315	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	QGSITSPQANEQSVTPQR	R	R	95.00%	2.88	0.523	0	3	0	0	2	2,007.91	852	869	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	QGSITSPQANEQSVTPQRR	R	S	95.00%	3.79	0.197	0	0	1	0	2	2,164.01	852	870	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	QPSSPYEDKDKDK	K	K	95.00%	3.41	0.304	0	0	1	0	2	1,616.68	330	342	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	RGEGDAPFSEPGTTSTQRPSSPETATK	R	Q	95.00%	4.11	0.115	0	0	1	0	2	2,951.25	303	329	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	RSPSVSSPEPAEK	R	S	95.00%	2.56	0.153	0	2	0	0	2	1,530.62	1726	1738	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	RVPSPTPAPK	K	E	92.60%	2.33	0.17	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SAHATAPVNIAGSR	R	T	95.00%	2.54	0.311	0	1	0	0	2	1,431.67	2343	2356	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SATRPSPSPER	K	S	81.10%	1.77	0.221	0	1	0	0	2	1,424.50	346	356	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SGAGSSPETKEQNSALPTSSQDEELMEVVEI	R	S	85.50%	5.08	0.0481	0	0	1	0	2	3,344.47	1214	1244	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SGSSQELDVKPSASPQER	R	S	95.00%	4.44	0.471	0	3	2	0	2	1,981.89	1539	1556	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SLSYSPVER	R	R	95.00%	2.01	0.293	0	2	0	0	2	1,197.46	2690	2698	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SPSVSSPEPAEK	R	S	95.00%	2.26	0.347	0	2	0	0	2	1,294.56	1727	1738	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SPVPSAFSDQSR	R	C	95.00%	2.05	0.253	0	1	0	0	2	1,357.58	2449	2460	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SRSGSSQELDVKPSASPQER	R	S	95.00%	4.09	0.375	0	0	1	0	2	2,225.02	1537	1556	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SRSPLAIR	R	R	88.00%	2.08	0.198	0	1	0	0	2	979.5085	2044	2051	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SRSPSSPELNNK	R	C	95.00%	3.15	0.316	0	1	0	0	2	1,395.63	1497	1508	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SRTSPAPWK	R	R	79.90%	1.99	0.197	0	1	0	0	2	1,109.51	1854	1862	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SSGHSSSELSPDAVEK	R	A	95.00%	2.94	0.245	0	4	0	0	2	1,696.71	1378	1393	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SSSPVTELASR	R	S	95.00%	1.96	0.398	1	1	0	0	2	1,293.51	1101	1111	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SSSPVTELASRSPIRQDR	R	G	80.30%	2.8	0.126	0	0	1	0	2	2,066.00	1101	1118	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SSTGPEPPAPTPLLAER	R	H	95.00%	2.08	0.256	0	1	0	0	2	1,799.86	357	373	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	SSTPPGESYFGVSSLQLK	K	G	81.30%	3.22	0.0243	0	1	0	0	2	1,963.91	1041	1058	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	THTTALAGRSPSPASGR	K	R	95.00%	2.27	0.301	0	1	1	0	2	1,826.79	286	302	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	TPMSVLQQAGGSMMDGPGPR	R	I	95.00%	3.27	0.325	0	1	0	0	2	2,096.90	2144	2163	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	TPQAPASANLVGPR	R	S	95.00%	3.11	0.38	0	1	0	0	2	1,458.71	2329	2342	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	TSPAPWK	R	R	94.40%	1.43	0.309	0	1	0	0	2	866.3809	1856	1862	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	TSPPLLDR	R	A	94.60%	1.6	0.302	0	1	0	0	2	978.4658	2397	2404	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	TSVPENHAQSR	R	I	83.80%	1.92	0.206	0	0	1	0	2	1,305.56	2170	2180	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	TVARTPLGQR	K	S	95.00%	2.53	0.292	0	1	0	0	2	1,178.60	1527	1536	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	VKAQTPPGPSLSGSK	K	S	95.00%	2.53	0.393	0	1	2	0	2	1,533.77	999	1013	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	VKPETPPRQSHSGSISPYPK	K	V	88.40%	3.1	0.191	0	0	1	0	2	2,352.08	979	998	TRUE	
SNU216_PC1_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	52	63	96	0.60%	23.20%	VSGRTSPPLLDR	R	A	95.00%	2.23	0.209	0	1	0	0	2	1,377.69	2393	2404	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 1 of STE20-like serine/threonine-protein k	IPI00022827	142,697.80	100.00%	2	2	2	0.01%	1.86%	VDEDSAEDTQSNDGK	K	E	95.00%	3.07	0.394	0	1	0	0	2	1,689.61	561	575	TRUE	
SNU216_PC1_03	Isoform 1 of STE20-like serine/threonine-protein k	IPI00022827	142,697.80	100.00%	2	2	2	0.01%	1.86%	VDEDSAEDTQSNDGKEVVEVGQK	K	L	95.00%	4.24	0.327	0	0	1	0	2	2,558.08	561	583	TRUE	
SNU216_PC1_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	2	2	2	0.01%	4.05%	LDSPTMSR	K	A	90.80%	1.55	0.265	0	1	0	0	2	986.4014	195	202	TRUE	
SNU216_PC1_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	2	2	2	0.01%	4.05%	SKETSSPGTDDVFTPAPSDSPSSQR	R	I	95.00%	5.48	0.0637	0	0	1	0	2	2,660.14	270	294	TRUE	
SNU216_PC1_03	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	99.40%	2	3	3	0.02%	0.64%	LSTSPPPPAIAVPLLEMGFSLR	R	Q	95.00%	5.27	0.492	0	1	1	0	2	2,373.23	2744	2765	TRUE	
SNU216_PC1_03	guanine nucleotide exchange factor p532	IPI00022479	532,237.10	99.40%	2	3	3	0.02%	0.64%	SESLTAESR	R	L	88.60%	1.92	0.181	0	1	0	0	2	1,059.44	1489	1497	TRUE	
SNU216_PC1_03	Zinc finger protein 40	IPI00013444	297,216.50	98.60%	1	1	1	0.01%	0.66%	SVGDDEELQQNESGTSPK	K	S	95.00%	3.24	0.474	0	1	0	0	2	1,999.81	1035	1052	TRUE	
SNU216_PC1_03	Centromere protein C 1	IPI00304885	106,928.30	100.00%	2	2	2	0.01%	3.08%	NDVDDEEVHGSSDDSK	K	Q	90.20%	1.75	0.256	0	1	0	0	2	1,907.62	699	714	TRUE	
SNU216_PC1_03	Centromere protein C 1	IPI00304885	106,928.30	100.00%	2	2	2	0.01%	3.08%	SEESPVYSNSSVR	K	N	90.70%	2.25	0.18	0	1	0	0	2	1,520.63	535	547	TRUE	
SNU216_PC1_03	Transcriptional activator SRCAP	IPI00009101,IPI00444046,IP	327,839.00	100.00%	4	4	4	0.02%	1.92%	DEEQSEADAGSGPPTPGPTTLGPK	R	K	95.00%	3.29	0.33	0	0	1	0	2	2,418.04	558	581	TRUE	
SNU216_PC1_03	Transcriptional activator SRCAP	IPI00009101,IPI00444046,IP	327,839.00	100.00%	4	4	4	0.02%	1.92%	NPPSPRPSQLPVLDR	K	D	95.00%	3.25	0.34	0	0	1	0	2	1,752.88	2855	2869	TRUE	
SNU216_PC1_03	Transcriptional activator SRCAP	IPI00009101,IPI00444046,IP	327,839.00	100.00%	4	4	4	0.02%	1.92%	SGPPSPPSTATSFGGPR	R	P	95.00%	2.89	0.437	0	1	0	0	2	1,679.74	1697	1713	TRUE	
SNU216_PC1_03	Transcriptional activator SRCAP	IPI00009101,IPI00444046,IP	327,839.00	100.00%	4	4	4	0.02%	1.92%	SGPPSPPSTATSFGGPRPR	R	R	95.00%	2.32	0.321	0	0	1	0	2	1,932.90	1697	1715	TRUE	
SNU216_PC1_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	1	1	1	0.01%	2.75%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	3.76	0.286	0	0	1	0	2	2,616.22	446	467	TRUE	
SNU216_PC1_03	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	99.80%	1	1	1	0.01%	1.33%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.62	0.169	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216_PC1_03	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	100.00%	1	1	2	0.01%	1.55%	DIEVLSEDTDYEEDEVTKK	K	R	95.00%	3.23	0.387	0	0	2	0	2	2,336.99	699	717	TRUE	
SNU216_PC1_03	Diacylglycerol O-acyltransferase 1	IPI00015799,IPI00735571,IP	55,280.00	100.00%	1	1	1	0.01%	4.30%	TGSRPSSHGGGGPAAAEEEVR	R	D	95.00%	3.26	0.219	0	0	1	0	2	2,088.91	12	32	TRUE	
SNU216_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	5	6	9	0.06%	3.47%	DPGLEPGPDSPGGSSPPR	K	R	95.00%	3.43	0.512	0	3	0	0	2	1,798.76	963	980	TRUE	
SNU216_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	5	6	9	0.06%	3.47%	DPGLEPGPDSPGGSSPPRR	K	Q	95.00%	2.47	0.437	0	2	1	0	2	2,034.83	963	981	TRUE	
SNU216_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	5	6	9	0.06%	3.47%	EHDKSGEEEQGAEEGPGVPAATTEDHIQVE	K	V	95.00%	3.94	0.379	0	0	0	1	2	3,482.50	1397	1428	TRUE	
SNU216_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	5	6	9	0.06%	3.47%	SGSEEAVTDPGER	R	E	95.00%	2.65	0.387	0	1	0	0	2	1,413.55	1200	1212	TRUE	
SNU216_PC1_03	Protein FAM38A	IPI00006093	240,951.80	100.00%	5	6	9	0.06%	3.47%	TASELLLDR	R	R	92.90%	1.61	0.268	0	1	0	0	2	1,097.52	1225	1233	TRUE	
SNU216_PC1_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.90%	2	3	9	0.06%	1.53%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	4.86	0.47	0	1	5	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC1_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.90%	2	3	9	0.06%	1.53%	LVSFHDDSDEDLLHI	K	-	95.00%	4.03	0.463	0	3	0	0	2	1,834.79	2477	2491	TRUE	
SNU216_PC1_03	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	3	0.02%	2.56%	GIGTPPNTTPIKNGSPEIK	K	L	95.00%	2.67	0.247	0	0	1	0	2	2,160.94	107	125	TRUE	
SNU216_PC1_03	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	3	0.02%	2.56%	IQDPTEDAEAEDTPR	R	K	95.00%	3.43	0.455	0	1	0	0	2	1,766.71	532	546	TRUE	
SNU216_PC1_03	Wolf-Hirschhorn syndrome candidate 1 protein is	IPI00218240	152,543.20	100.00%	3	3	3	0.02%	2.56%	RIQDPTEDAEAEDTPR	K	K	95.00%	3.97	0.371	0	0	1	0	2	1,922.81	531	546	TRUE	
SNU216_PC1_03	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	2	3	3	0.02%	1.48%	QRGSETDTDSEIHESASDKDSLSK	R	G	95.00%	4.11	0.434	0	0	0	1	2	2,702.14	1260	1283	TRUE	
SNU216_PC1_03	HBxAg transactivated protein 2	IPI00083708,IPI00739117	295,828.20	100.00%	2	3	3	0.02%	1.48%	SVSHGSNHTQKPDEQR	R	S	95.00%	2.87	0.323	0	0	1	1	2	1,886.81	924	939	TRUE	
SNU216_PC1_03	Protein capicua homolog	IPI00045360	163,789.70	100.00%	3	3	4	0.02%	3.42%	AASEDMTSDEER	R	M	95.00%	2.45	0.427	0	2	0	0	2	1,500.46	429	440	TRUE	
SNU216_PC1_03	Protein capicua homolog	IPI00045360	163,789.70	100.00%	3	3	4	0.02%	3.42%	FAELPEFRPEEVLPSPTLQSLATSPR	R	A	95.00%	5.65	0.0437	0	0	1	0	2	2,991.49	1359	1384	TRUE	
SNU216_PC1_03	Protein capicua homolog	IPI00045360	163,789.70	100.00%	3	3	4	0.02%	3.42%	KNSTDLDSAPEDPTSPK	R	R	82.10%	3	0.0677	0	1	0	0	2	2,041.74	1395	1411	TRUE	
SNU216_PC1_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	4.25	0.465	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	DSKPIALKEEIVTPK	K	E	95.00%	3.46	0.453	0	0	1	0	2	1,747.92	502	516	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	ESKGSPVFLPR	K	K	95.00%	1.94	0.35	0	1	0	0	2	1,296.63	419	429	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	ETTSGTSTEPVKNSSPAPPQPAPGK	K	V	95.00%	4.05	0.373	0	0	2	0	2	2,545.18	1069	1093	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	3.48	0.445	0	0	1	0	2	2,811.39	664	689	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.7	0.382	0	0	1	1	2	2,380.14	381	401	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	KETTSGTSTEPVKNSSPAPPQPAPGK	R	V	95.00%	5.59	0.596	0	0	2	1	2	2,673.28	1068	1093	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	LYNSEESRPYTNK	R	V	95.00%	2.26	0.189	0	1	0	0	2	1,680.73	883	895	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	NSSPAPPQPAPGK	K	V	95.00%	1.94	0.308	0	1	0	0	2	1,327.60	1081	1093	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	QDDSPSGASYGQDYDLSPSR	K	S	91.70%	3.54	0.0276	0	1	0	0	2	2,304.83	233	252	TRUE	
SNU216_PC1_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	100.00%	10	12	15	0.09%	10.10%	RQSVSPPYKEPSAYQSSTR	R	S	95.00%	3.24	0.332	0	0	2	0	2	2,328.01	272	290	TRUE	
SNU216_PC1_03	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	3	3	5	0.03%	2.47%	NGILAIEGTGSDVDDDMSGDEK	R	Q	95.00%	2.67	0.201	0	1	0	0	2	2,317.94	1583	1604	TRUE	
SNU216_PC1_03	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	3	3	5	0.03%	2.47%	NGILAIEGTGSDVDDDMSGDEKQDNESNV	R	D	95.00%	3.76	0.257	0	0	2	0	2	3,472.43	1583	1614	TRUE	
SNU216_PC1_03	ubiquitin specific protease 9, X-linked isoform 4	IPI00003964,IPI00221012	292,318.20	100.00%	3	3	5	0.03%	2.47%	RPYTGNPQYTYNNWSPPVQSNETSNGYFL	R	S	95.00%	5.84	0.13	0	0	2	0	2	3,759.65	2429	2459	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	ASAVSELSPR	R	E	95.00%	1.83	0.31	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	ERSPALKSPLQSVVVR	R	R	95.00%	3.59	0.375	0	1	2	1	2	1,845.99	246	261	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	FSGEEGEIEDDESGTENR	K	E	95.00%	3.75	0.523	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	GSFSDTGLGDGK	K	M	93.40%	1.51	0.312	0	1	0	0	2	1,220.48	376	387	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	IDISPSTFR	R	K	95.00%	2.2	0.302	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	SPSELFAQHIVTIVHHVK	R	E	95.00%	2.79	0.384	0	0	1	0	2	2,122.08	622	639	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.71	0.429	0	2	1	0	2	1,931.87	315	333	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	TDSEKPFRGSQSPK	K	R	95.00%	2.32	0.246	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	5.82	0.597	0	0	1	1	2	2,717.06	922	944	TRUE	
SNU216_PC1_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	10	14	17	0.11%	13.00%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.71	0.393	0	0	0	2	2	3,103.24	922	947	TRUE	
SNU216_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	8	0.05%	2.76%	HSDNPSEEGEVKDDGLEK	R	S	95.00%	3.49	0.273	0	0	2	0	2	2,144.81	1368	1385	TRUE	
SNU216_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	8	0.05%	2.76%	KQDSSDEDDDDDEAPK	K	R	95.00%	1.95	0.477	0	1	0	0	2	1,968.63	204	219	TRUE	
SNU216_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	8	0.05%	2.76%	KQDSSDEDDDDDEAPKR	K	Q	95.00%	5.08	0.509	0	1	1	0	2	2,124.73	204	220	TRUE	
SNU216_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	8	0.05%	2.76%	LKEEHGIELSSPR	R	H	95.00%	3.61	0.319	0	1	1	0	2	1,574.76	1355	1367	TRUE	
SNU216_PC1_03	Chromodomain-helicase-DNA-binding protein 2	IPI00023109	200,567.80	100.00%	5	7	8	0.05%	2.76%	QDSSDEDDDDDEAPKR	K	Q	95.00%	3	0.598	0	1	0	0	2	1,996.63	205	220	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	P	95.00%	3.23	0.549	0	1	0	0	2	1,572.68	581	594	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	112,120.10	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.12	0.261	0	0	0	1	2	3,054.38	939	964	TRUE	
SNU216_PC1_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	3	3	0.02%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	3.84	0.374	0	0	1	0	2	2,298.08	9	31	TRUE	
SNU216_PC1_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	3	3	0.02%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	R	E	95.00%	4.72	0.39	0	0	1	1	2	2,541.20	7	31	TRUE	
SNU216_PC1_03	146 kDa protein	IPI00215638,IPI00742905	140,884.40	100.00%	1	1	1	0.01%	3.35%	SEEVPAFGVASPPPLTDTPDTTANAEGDLPT	K	A	95.00%	5.66	0.108	0	0	0	1	2	4,489.15	77	120	TRUE	
SNU216_PC1_03	Isoform 2 of Pre-mRNA-processing factor 40 hom	IPI00337385,IPI00337386,IP	106,909.00	100.00%	2	2	3	0.02%	3.39%	DSGNWDTSGSELSEGELEK	K	R	95.00%	3.11	0.422	0	1	0	0	2	2,119.83	908	926	TRUE	
SNU216_PC1_03	Isoform 2 of Pre-mRNA-processing factor 40 hom	IPI00337385,IPI00337386,IP	106,909.00	100.00%	2	2	3	0.02%	3.39%	SDSPESDAEREK	K	D	95.00%	2.33	0.192	0	2	0	0	2	1,429.55	865	876	TRUE	
SNU216_PC1_03	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.80%	1	1	1	0.01%	3.72%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	6.31	0.452	0	0	0	1	2	4,052.72	188	220	TRUE	
SNU216_PC1_03	WD repeat domain 62	IPI00470483	165,886.10	99.40%	2	3	3	0.02%	3.36%	LHGSAFRPSLPAPESPGLPAHPSNPQLPEAR	R	P	88.40%	2.97	0.143	0	0	0	1	2	3,307.64	1334	1364	TRUE	
SNU216_PC1_03	WD repeat domain 62	IPI00470483	165,886.10	99.40%	2	3	3	0.02%	3.36%	SISLGDSEGPIVATLAQPLR	R	R	95.00%	3.82	0.491	0	1	1	0	2	2,104.07	1226	1245	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	8	8	0.05%	4.57%	DKEVSDDEAEEK	R	E	95.00%	2.61	0.32	0	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	8	8	0.05%	4.57%	DKEVSDDEAEEKEDK	R	E	95.00%	3.97	0.451	0	1	1	0	2	1,845.73	349	363	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	8	8	0.05%	4.57%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.45	0.426	0	1	1	0	2	2,272.89	373	391	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	8	8	0.05%	4.57%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.47	0.369	0	1	1	0	2	2,400.98	373	392	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	5	8	8	0.05%	4.57%	EVSDDEAEEKEDKEEEK	K	E	95.00%	3.54	0.342	0	0	1	0	2	2,117.83	351	367	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	4	6	0.04%	4.47%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.8	0.502	0	0	2	0	2	3,454.32	11	39	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	4	6	0.04%	4.47%	EVIDASDKEGMSPAK	K	R	95.00%	2.93	0.297	0	1	0	0	2	1,656.72	82	96	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	4	6	0.04%	4.47%	EVIDASDKEGMSPAKR	K	T	95.00%	3.27	0.207	0	1	0	0	2	1,812.82	82	97	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	4	4	6	0.04%	4.47%	SINEENGEVSEDQSQNK	K	H	95.00%	2.1	0.377	0	2	0	0	2	1,986.79	23	39	TRUE	
SNU216_PC1_03	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDVDGDVNVEK	R	N	95.00%	5.56	0.502	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216_PC1_03	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDVDGDVNVEKNETEPPK	R	G	95.00%	5.9	0.389	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216_PC1_03	Isoform 1 of Serologically defined colon cancer a	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDVDGDVNVEKNETEPPKGK	K	K	95.00%	4.86	0.338	0	0	1	0	2	3,454.51	412	441	TRUE	
SNU216_PC1_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	6	6	0.04%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	3.06	0.249	0	1	1	0	2	2,092.82	20	38	TRUE	
SNU216_PC1_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	6	6	0.04%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	5.9	0.435	0	1	1	1	2	2,128.94	8	26	TRUE	
SNU216_PC1_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	3	6	6	0.04%	6.97%	VAHEPVAPPEDKESESEAKVDGETASDSESR	R	A	95.00%	3.79	0.242	0	0	0	1	2	3,362.45	8	38	TRUE	
SNU216_PC1_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	5	6	0.04%	3.98%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	3.39	0.448	0	2	1	0	2	2,075.92	342	359	TRUE	
SNU216_PC1_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	5	6	0.04%	3.98%	KRSPSPSPTPEAK	R	K	95.00%	3.33	0.312	0	1	1	0	2	1,461.71	300	312	TRUE	
SNU216_PC1_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	3	5	6	0.04%	3.98%	TLTDEVNSPDSDRR	K	D	95.00%	2.94	0.244	0	1	0	0	2	1,684.72	276	289	TRUE	
SNU216_PC1_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	3	4	0.02%	2.91%	AEAPSSPDVAPAGK	K	E	95.00%	1.93	0.397	0	1	0	0	2	1,456.58	1355	1368	TRUE	
SNU216_PC1_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	3	4	0.02%	2.91%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	5.03	0.508	0	0	2	0	2	2,262.99	1355	1377	TRUE	
SNU216_PC1_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	3	3	4	0.02%	2.91%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	3.89	0.361	0	0	1	0	2	2,582.14	907	931	TRUE	
SNU216_PC1_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	99.80%	1	1	1	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.21	0.222	0	1	0	0	2	1,444.63	471	483	TRUE	
SNU216_PC1_03	Isoform 1 of Telomerase-binding protein EST1A	IPI00015793	160,466.50	99.80%	2	2	2	0.01%	2.68%	KQHEEFDLSPDQWR	K	K	95.00%	3.29	0.242	0	0	1	0	2	1,894.81	823	836	TRUE	
SNU216_PC1_03	Isoform 1 of Telomerase-binding protein EST1A	IPI00015793	160,466.50	99.80%	2	2	2	0.01%	2.68%	TQTPQLHFLDTDDEVSPTSWGDSR	K	Q	95.00%	4.4	0.108	0	0	1	0	2	2,812.21	469	492	TRUE	
SNU216_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.73%	AAHVPENSDTEQDVLTVKPVR	R	K	95.00%	4.21	0.393	0	0	1	1	2	2,385.14	1363	1383	TRUE	
SNU216_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.73%	AAHVPENSDTEQDVLTVKPVRK	R	V	95.00%	4.07	0.252	0	0	0	1	2	2,513.24	1363	1384	TRUE	
SNU216_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.73%	LSFASETPLEKEPHSPADQPEQQAESTLTSAI	R	G	95.00%	3.72	0.236	0	0	0	1	2	3,791.73	1314	1347	TRUE	
SNU216_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.73%	RHSAQLSSDHIIPLMHLAK	R	D	80.20%	3.06	0.128	0	0	0	1	2	2,234.13	935	953	TRUE	
SNU216_PC1_03	Zinc finger protein 106 homolog	IPI00008283	209,142.20	100.00%	5	6	6	0.04%	5.73%	SEMIEKPLFDFSLITTGIQEPQTDETRNSPTQI	K	T	95.00%	5.96	0.366	0	0	0	1	2	3,860.83	372	404	TRUE	
SNU216_PC1_03	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	4	5	0.03%	5.43%	ATDEDMQSLASLMSMK	K	Q	95.00%	2.88	0.305	0	1	0	0	2	1,837.74	164	179	TRUE	
SNU216_PC1_03	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	4	5	0.03%	5.43%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	2.93	0.286	0	2	1	0	2	1,927.99	389	406	TRUE	
SNU216_PC1_03	EHBP1 protein	IPI00433194	132,325.70	100.00%	3	4	5	0.03%	5.43%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	6.31	0.554	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.39%	EHQEMDEGSQSLEK	K	L	95.00%	2.4	0.234	0	1	0	0	2	1,726.66	1296	1309	TRUE	
SNU216_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.39%	EVSPSDVR	R	E	95.00%	1.88	0.286	0	1	0	0	2	968.4085	1951	1958	TRUE	
SNU216_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.39%	LPISDSPPDTQEIHVIEQEK	K	L	95.00%	4.57	0.482	0	0	1	0	2	2,355.11	1517	1536	TRUE	
SNU216_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.39%	NLSFNELYPSGTLK	R	L	95.00%	2.8	0.41	0	1	0	0	2	1,662.78	1548	1561	TRUE	
SNU216_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.39%	SLPSSSQLKGSPQAISR	R	A	95.00%	2.99	0.327	0	1	1	0	2	1,822.91	1159	1175	TRUE	
SNU216_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.39%	STPLASPSPSPGRSPQR	R	L	95.00%	3.42	0.481	0	1	1	0	2	1,801.86	1218	1234	TRUE	
SNU216_PC1_03	ELYS transcription factor-like protein TMBS62	IPI00170594,IPI00217957	253,462.20	100.00%	7	10	10	0.06%	4.39%	TTSFFLNSPEKEHQEMDEGSQSLEK	R	L	95.00%	5.12	0.165	0	0	1	1	2	2,978.28	1285	1309	TRUE	
SNU216_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	5	5	0.03%	7.89%	ASEAASPLPDSPGDK	K	L	95.00%	2.19	0.3	0	1	0	0	2	1,521.65	1144	1158	TRUE	
SNU216_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	5	5	0.03%	7.89%	FYDDKVSALMQPSQKR	K	Y	89.00%	2.75	0.223	0	0	1	0	2	2,088.89	143	158	TRUE	
SNU216_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	5	5	0.03%	7.89%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	3.66	0.375	0	0	1	0	2	2,117.99	774	792	TRUE	
SNU216_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	5	5	0.03%	7.89%	LILELDPTFEPIPTHMNALGSQANGSVSPDS	R	A	83.80%	3	0.176	0	0	0	1	2	3,869.88	705	741	TRUE	
SNU216_PC1_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	100.00%	5	5	5	0.03%	7.89%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	3.93	0.276	0	0	1	0	2	3,031.34	330	356	TRUE	
SNU216_PC1_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	5	0.03%	6.82%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	4.01	0.474	0	0	3	0	2	3,291.30	348	375	TRUE	
SNU216_PC1_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	5	0.03%	6.82%	MLAESDESGDEESVSQTDK	K	T	95.00%	3.32	0.452	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216_PC1_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	3	3	5	0.03%	6.82%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.61	0.399	0	0	1	0	2	3,172.29	186	212	TRUE	
SNU216_PC1_03	UNC93 homolog B1	IPI00008490	66,633.10	100.00%	2	3	6	0.04%	6.70%	YLEEDNSDESDAEGEHGDGAEEAPPAGPR	R	P	95.00%	5.28	0.664	0	0	2	0	2	3,332.21	541	570	TRUE	
SNU216_PC1_03	UNC93 homolog B1	IPI00008490	66,633.10	100.00%	2	3	6	0.04%	6.70%	YLEEDNSDESDAEGEHGDGAEEAPPAGPR	R	R	95.00%	4.78	0.428	0	0	1	3	2	4,263.69	541	580	TRUE	
SNU216_PC1_03	Peregrin	IPI00023856,IPI00456620	138,186.80	99.80%	2	3	3	0.02%	4.12%	GAGWLSEDEDSPLDALDLVWAK	R	C	95.00%	4.91	0.496	0	1	1	0	2	2,467.11	1077	1098	TRUE	
SNU216_PC1_03	Peregrin	IPI00023856,IPI00456620	138,186.80	99.80%	2	3	3	0.02%	4.12%	RLPALSHSEGEEDEDEEEDEGKGWSSEK	R	V	95.00%	3.39	0.222	0	0	0	1	2	3,334.29	455	482	TRUE	
SNU216_PC1_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	6.50%	RYPSSISSSPQK	R	D	95.00%	2.32	0.225	0	1	0	0	2	1,416.65	603	614	TRUE	
SNU216_PC1_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	6.50%	RYPSSISSSPQKDLTQAK	R	N	95.00%	2.7	0.317	0	1	1	0	2	2,073.00	603	620	TRUE	
SNU216_PC1_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	6.50%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.05	0.27	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216_PC1_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	6	6	0.04%	6.50%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	4.48	0.0099	0	1	0	0	2	2,612.09	462	486	TRUE	
SNU216_PC1_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	3.36	0.241	0	0	1	0	2	2,141.98	652	670	TRUE	
SNU216_PC1_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	2	3	3	0.02%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	4.85	0.428	0	1	1	0	2	2,238.86	634	651	TRUE	
SNU216_PC1_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	6.78%	HYEDGYPGGSDNYGSLSR	R	V	95.00%	2.78	0.33	0	1	0	0	2	2,053.79	162	179	TRUE	
SNU216_PC1_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	6.78%	SGDLGDMEPLK	R	G	95.00%	1.99	0.345	0	1	0	0	2	1,241.51	860	870	TRUE	
SNU216_PC1_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	6.78%	SMGYDDLDYGMMSDYGTAR	R	R	95.00%	4.17	0.617	0	1	0	0	2	2,227.80	234	252	TRUE	
SNU216_PC1_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	4	4	0.02%	6.78%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.03	0.379	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC1_03	CLPTM1 protein	IPI00107357,IPI00396411	79,558.20	99.10%	1	1	1	0.01%	2.86%	RGPAPQDQAGPGGAPRVASR	R	N	81.40%	2.53	0.192	0	0	1	0	2	2,024.98	75	94	TRUE	
SNU216_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	5	5	5	0.03%	3.59%	ELDPSLVSANDSPSGMQTR	R	C	95.00%	4.31	0.493	0	1	0	0	2	2,083.90	2150	2168	TRUE	
SNU216_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	5	5	5	0.03%	3.59%	GQSPLAPLLETLEDPSASHGGQTDAYLTLTS	R	M	95.00%	4.89	0.605	0	0	1	0	2	3,405.62	5	36	TRUE	
SNU216_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	5	5	5	0.03%	3.59%	SNESVDIQDQEEK	K	V	95.00%	3.02	0.416	0	1	0	0	2	1,600.64	1576	1588	TRUE	
SNU216_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	5	5	5	0.03%	3.59%	SQEDEISSPVNK	K	V	95.00%	2.3	0.229	0	1	0	0	2	1,412.59	2189	2200	TRUE	
SNU216_PC1_03	Isoform 2 of Telomere-associated protein RIF1	IPI00293845,IPI00375454,IP	274,469.30	100.00%	5	5	5	0.03%	3.59%	VKSPQRPSDWSK	K	K	93.10%	1.77	0.3	0	1	0	0	2	1,494.71	780	791	TRUE	
SNU216_PC1_03	RB1-inducible coiled-coil protein 1	IPI00291638	183,444.80	99.80%	1	1	1	0.01%	0.75%	STELVLSPDMPR	R	T	95.00%	2.6	0.33	0	1	0	0	2	1,424.65	237	248	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	99.70%	2	2	2	0.01%	1.94%	LHPDGSPDVAGEK	K	G	93.90%	1.94	0.23	0	1	0	0	2	1,401.60	594	606	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686B18208	IPI00413144	210,859.80	99.70%	2	2	2	0.01%	1.94%	SSDPGPDIGVVEESPEKGDEISLR	R	R	95.00%	4.22	0.402	0	0	1	0	2	2,592.17	988	1011	TRUE	
SNU216_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	4.34%	EGVQGPLNVSLSEEGK	K	S	95.00%	4.09	0.541	0	1	0	0	2	1,722.79	1177	1192	TRUE	
SNU216_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	4.34%	GIASTSDPPTANIKPTPVVSTPSKVTAAAMA	R	S	93.00%	3.47	0.2	0	0	0	1	2	3,455.65	1658	1691	TRUE	
SNU216_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	4.34%	GNHVIRDEEVSSADISSSSEVISQHLVSYR	R	N	92.90%	6.62	0	0	0	0	1	2	3,380.58	513	542	TRUE	
SNU216_PC1_03	Nucleoprotein TPR	IPI00022970	265,864.50	100.00%	4	4	4	0.02%	4.34%	KGAILSEEELAAMSPTAAAVAK	R	I	95.00%	3.59	0.277	0	0	1	0	2	2,238.11	367	388	TRUE	
SNU216_PC1_03	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	4	4	0.02%	2.02%	HRSLTAHSLLPLAEK	R	Q	95.00%	3.13	0.308	0	0	1	1	2	1,752.92	1379	1393	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	4	4	0.02%	2.02%	SLTAHSLLPLAEK	R	Q	95.00%	2.89	0.331	0	1	0	0	2	1,459.76	1381	1393	TRUE	
SNU216_PC1_03	185 kDa protein	IPI00328905,IPI00514068,IP	179,487.00	100.00%	3	4	4	0.02%	2.02%	VLAVSLINEALDKGSPEK	R	T	95.00%	3.46	0.285	0	0	1	0	2	1,963.02	482	499	TRUE	
SNU216_PC1_03	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	1	1	1	0.01%	1.45%	QGSFTIEKPSPNIPIELIPHINK	R	Q	95.00%	3.13	0.268	0	0	1	0	2	2,652.38	837	859	TRUE	
SNU216_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	7	7	0.04%	11.70%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.54	0.458	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	7	7	0.04%	11.70%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	3.03	0.224	0	0	1	0	2	2,600.01	696	716	TRUE	
SNU216_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	7	7	0.04%	11.70%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	6.56	0.47	0	0	1	0	2	2,837.11	672	695	TRUE	
SNU216_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	7	7	0.04%	11.70%	VFDDESDEKEDEEYADEK	K	G	95.00%	3.62	0.401	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216_PC1_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	5	7	7	0.04%	11.70%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	5.76	0.502	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC1_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	4	4	0.02%	4.71%	DRTPPLLYR	R	D	95.00%	2.59	0.217	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216_PC1_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	4	4	0.02%	4.71%	HLDRSPESDRPR	R	K	84.40%	1.98	0.191	0	0	1	0	2	1,544.70	652	663	TRUE	
SNU216_PC1_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	4	4	0.02%	4.71%	SLSPGGAALGYR	R	D	87.90%	2.01	0.183	0	0	1	0	2	1,228.57	292	303	TRUE	
SNU216_PC1_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	4	4	4	0.02%	4.71%	TTAPTEGKSPLKK	R	E	95.00%	2.75	0.213	0	0	1	0	2	1,437.74	733	745	TRUE	
SNU216_PC1_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	6.18	0.0731	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216_PC1_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	3	3	0.02%	4.51%	GPSQEEEDNHSDEEDRASEPK	R	S	95.00%	3.31	0.234	0	0	1	0	2	2,464.94	57	77	TRUE	
SNU216_PC1_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	3	3	0.02%	4.51%	GPSQEEEDNHSDEEDRASEPKSQDQDSEVI	R	G	95.00%	2.77	0.247	0	0	0	1	2	4,112.52	57	90	TRUE	
SNU216_PC1_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	3	3	0.02%	4.51%	LGVSVSPSR	K	A	95.00%	2.17	0.308	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	10	11	0.07%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.38	0.421	0	1	1	0	2	1,687.66	223	236	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	10	11	0.07%	4.56%	EKEISDDEAEEEK	K	G	95.00%	3.52	0.449	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	10	11	0.07%	4.56%	EKEISDDEAEEEKGEK	R	E	95.00%	4.17	0.391	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	10	11	0.07%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.84	0.444	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	10	11	0.07%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.58	0.506	0	2	1	0	2	1,817.70	249	264	TRUE	
SNU216_PC1_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	10	11	0.07%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.68	0.327	0	1	1	0	2	1,945.79	249	265	TRUE	
SNU216_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	11	13	0.08%	6.32%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	4.32	0.0456	0	1	0	0	2	2,897.99	1234	1256	TRUE	
SNU216_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	11	13	0.08%	6.32%	IESDEEEDFENVGK	R	V	95.00%	3	0.468	0	2	1	0	2	1,719.66	1302	1315	TRUE	
SNU216_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	11	13	0.08%	6.32%	KPDSPPKVLEPENK	K	Q	95.00%	4.43	0.462	0	1	2	0	2	1,657.82	704	717	TRUE	
SNU216_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	11	13	0.08%	6.32%	KPYRIESDEEEDFENVGK	K	V	95.00%	3.69	0.302	0	0	1	0	2	2,263.98	1298	1315	TRUE	
SNU216_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	11	13	0.08%	6.32%	STDEYSEADEEEEEEEGKPSR	R	K	95.00%	4.6	0.49	0	1	1	0	2	2,524.94	1236	1256	TRUE	
SNU216_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	11	13	0.08%	6.32%	SVTPTKEFLKDEIK	K	Q	95.00%	2.62	0.296	0	0	1	0	2	1,714.87	365	378	TRUE	
SNU216_PC1_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	7	11	13	0.08%	6.32%	VGSPLDYSLVLDLPSTNGQSPGK	K	A	95.00%	4.11	0.447	0	1	1	0	2	2,311.09	1316	1337	TRUE	
SNU216_PC1_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	2	2	0.01%	8.25%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	5.66	0.498	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216_PC1_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	2	2	2	0.01%	8.25%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.34	0.363	0	0	0	1	2	2,581.18	462	485	TRUE	
SNU216_PC1_03	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	3	4	4	0.02%	4.59%	SEEDNEIESEEEVQPK	K	T	95.00%	3.93	0.449	0	1	0	0	2	1,970.78	219	234	TRUE	
SNU216_PC1_03	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	3	4	4	0.02%	4.59%	VHVQFFDDSPTR	R	G	95.00%	2.03	0.241	0	0	1	0	2	1,527.66	129	140	TRUE	
SNU216_PC1_03	Isoform GTBP-alt of DNA mismatch repair protein	IPI00106847	120,567.00	100.00%	3	4	4	0.02%	4.59%	VISDSESDIGGSDVEFKPDTK	R	E	95.00%	3.55	0.344	0	1	1	0	2	2,305.01	250	270	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	APEGDDFLSLHAESDGEGALQVDLGEPAPA	R	W	95.00%	4.97	0.534	0	0	1	0	2	3,781.69	440	476	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	5.12	0.444	0	0	1	0	2	2,434.09	531	554	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	EVLYDSEGLSGEER	R	G	95.00%	2.27	0.272	0	1	0	0	2	1,742.66	729	742	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	4.93	0.325	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	GAEETSWSGEER	K	A	95.00%	2.74	0.395	0	1	0	0	2	1,417.53	958	969	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	GPSPAPASSPKR	R	E	95.00%	2.44	0.268	0	2	0	0	2	1,311.55	717	728	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.5	0.451	0	1	2	0	2	2,127.97	496	516	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	REVLYDSEGLSGEER	K	G	95.00%	2.02	0.245	0	1	0	0	2	1,898.76	728	742	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	RRSASPPPATSSSSSSR	R	R	95.00%	3.47	0.41	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	SASPPPATSSSSSSR	R	R	95.00%	2.13	0.439	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	SPFLKPDER	R	A	95.00%	2.07	0.358	0	1	0	0	2	1,168.54	874	882	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	SPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.23	0.363	0	1	0	0	2	1,843.81	498	516	TRUE	
SNU216_PC1_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	13	14	16	0.10%	13.50%	VPSTPPPK	K	A	86.30%	1.59	0.257	0	1	0	0	2	902.4385	973	980	TRUE	
SNU216_PC1_03	RNA-binding protein NOB1	IPI00022373,IPI00394698	46,675.20	99.80%	1	1	1	0.01%	4.37%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	4.52	0.49	0	1	0	0	2	1,999.83	198	215	TRUE	
SNU216_PC1_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	12.40%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.14	0.0719	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216_PC1_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	12.40%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ(	R	V	95.00%	5.87	0.355	0	0	0	1	2	4,229.03	209	247	TRUE	
SNU216_PC1_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	12.40%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.57	0.323	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC1_03	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	2	4	5	0.03%	2.06%	ARNSGTQSDGEEKQPGLVMER	R	A	95.00%	3.43	0.299	0	1	2	0	2	2,385.05	958	978	TRUE	
SNU216_PC1_03	Isoform C of Lethal(2) giant larvae protein homol	IPI00465050,IPI00641801	112,927.90	100.00%	2	4	5	0.03%	2.06%	NSGTQSDGEEKQPGLVMER	K	A	95.00%	3.87	0.458	0	1	1	0	2	2,141.92	960	978	TRUE	
SNU216_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.12%	ALQLSNSPGASSAFLK	K	A	95.00%	3.94	0.329	0	1	0	0	2	1,670.82	977	992	TRUE	
SNU216_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.12%	DEDEGIPSENEEEKK	R	M	95.00%	2.69	0.324	0	1	0	0	2	1,827.72	2342	2356	TRUE	
SNU216_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.12%	FLSHSTDSLNK	K	I	91.50%	2.36	0.133	0	1	0	0	2	1,328.59	1929	1939	TRUE	
SNU216_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.12%	RAETFGGFDSHQMNASK	R	G	95.00%	2.78	0.215	0	0	1	0	2	1,962.82	2468	2484	TRUE	
SNU216_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.12%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	H	95.00%	4.49	0.472	0	0	1	0	2	3,230.52	1604	1635	TRUE	
SNU216_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.12%	SFSLEGLTGGAGVGNKPSSSLEVSSANAEEL	R	V	95.00%	5.43	0.424	0	0	0	1	2	4,169.94	1604	1643	TRUE	
SNU216_PC1_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	7	7	7	0.04%	4.12%	VDSLVSLSEEDLESDQR	R	E	95.00%	2.88	0.353	0	1	0	0	2	2,000.87	1644	1660	TRUE	
SNU216_PC1_03	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	3	3	0.02%	5.92%	AGTPIRDSHSPDLQLPTPEVIPSSGSK	K	L	95.00%	3.51	0.282	0	0	1	1	2	2,866.40	310	336	TRUE	
SNU216_PC1_03	Microtubule-actin crosslinking factor 1	IPI00256859	50,756.90	99.80%	2	3	3	0.02%	5.92%	DSHSPDLQLPTPEVIPSSGSK	R	L	95.00%	3.34	0.43	0	0	1	0	2	2,271.05	316	336	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger MYM-type protein 3	IPI00029484,IPI00219027,IP	152,379.90	99.80%	1	2	2	0.01%	1.17%	TGSPGPELLFHEGQQK	K	R	95.00%	3.05	0.433	0	1	1	0	2	1,804.83	462	477	TRUE	
SNU216_PC1_03	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.46	0.283	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	4	0.02%	1.45%	KHSPSPPPPTPTESR	R	K	95.00%	3.67	0.483	0	1	2	0	2	1,774.76	326	340	TRUE	
SNU216_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	4	0.02%	1.45%	RKHSPSPPPPTPTESR	K	K	95.00%	4.14	0.42	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216_PC1_03	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	2	3	3	0.02%	4.40%	GISPIVFDR	R	S	91.00%	1.59	0.263	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216_PC1_03	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	2	3	3	0.02%	4.40%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.12	0.446	0	0	1	1	2	2,465.14	415	437	TRUE	
SNU216_PC1_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.02	0.325	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC1_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLR	R	K	95.00%	1.98	0.403	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC1_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	3	3	3	0.02%	7.13%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.82	0.165	0	0	0	1	2	3,571.71	182	214	TRUE	
SNU216_PC1_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	2	0.01%	2.47%	ELEQHIQTSDPENFQSEER	R	S	95.00%	4.33	0.449	0	0	1	0	2	2,396.00	837	855	TRUE	
SNU216_PC1_03	Isoform 1 of Ubiquitin carboxyl-terminal hydrolas	IPI00165528,IPI00607554	147,183.40	100.00%	2	2	2	0.01%	2.47%	LFVLLPEQSPVSYSK	R	R	95.00%	2.61	0.333	0	1	0	0	2	1,786.90	736	750	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	99.60%	2	2	2	0.01%	2.27%	SQSGTLDGESAAWSASGEDSR	R	G	95.00%	5.09	0.616	0	1	0	0	2	2,177.86	1418	1438	TRUE	
SNU216_PC1_03	Isoform 1 of Tuberin	IPI00028493,IPI00218883	200,751.90	99.60%	2	2	2	0.01%	2.27%	SSSSPELQTLQDILGDPGDK	K	A	92.60%	3.85	0.0234	0	1	0	0	2	2,166.98	1385	1404	TRUE	
SNU216_PC1_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	99.00%	2	3	3	0.02%	2.27%	EAARSPDKPGGSPSASR	R	R	95.00%	3.25	0.333	0	1	1	0	2	1,749.79	45	61	TRUE	
SNU216_PC1_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	99.00%	2	3	3	0.02%	2.27%	SPDKPGGSPSASR	R	R	79.60%	1.94	0.262	0	1	0	0	2	1,322.57	49	61	TRUE	
SNU216_PC1_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	5.15	0.56	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC1_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.43	0.174	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC1_03	WD-repeat protein 3	IPI00009471	106,102.50	100.00%	3	4	4	0.02%	5.30%	ECEAKSEVMFFADATSHLEEKK	R	R	95.00%	2.85	0.235	0	0	1	0	2	2,746.12	908	929	TRUE	
SNU216_PC1_03	WD-repeat protein 3	IPI00009471	106,102.50	100.00%	3	4	4	0.02%	5.30%	GSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.63	0.538	0	1	1	0	2	2,816.14	239	264	TRUE	
SNU216_PC1_03	WD-repeat protein 3	IPI00009471	106,102.50	100.00%	3	4	4	0.02%	5.30%	IKGSSPGIQDTLEAEDGAFETDEAPEDR	K	I	95.00%	5.98	0.455	0	0	1	0	2	3,057.32	237	264	TRUE	
SNU216_PC1_03	Isoform 2 of AP-3 complex subunit delta-1	IPI00289608,IPI00719680	136,654.70	100.00%	2	2	2	0.01%	3.41%	NTETSKSPEKDVPMVEK	R	K	95.00%	3.43	0.342	0	0	1	0	2	1,998.91	823	839	TRUE	
SNU216_PC1_03	Isoform 2 of AP-3 complex subunit delta-1	IPI00289608,IPI00719680	136,654.70	100.00%	2	2	2	0.01%	3.41%	TEAQGEEDDAEGQDQDKKSPK	K	P	95.00%	2.98	0.185	0	0	1	0	2	2,384.97	913	933	TRUE	
SNU216_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	4	4	6	0.04%	5.52%	HSQPSPEPHSPTEPPAWGSSIVK	K	V	95.00%	4.43	0.39	0	0	3	0	2	2,532.16	728	750	TRUE	
SNU216_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	4	4	6	0.04%	5.52%	NLADEIESYMNLKSPLGSK	R	S	95.00%	3.15	0.332	0	0	1	0	2	2,189.02	995	1013	TRUE	
SNU216_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	4	4	6	0.04%	5.52%	RSSLPLDHGSPAQENPESEK	R	S	95.00%	4.63	0.386	0	0	1	0	2	2,258.01	1040	1059	TRUE	
SNU216_PC1_03	DENN domain containing protein	IPI00100453,IPI00746398	186,861.90	100.00%	4	4	6	0.04%	5.52%	SSPVPEMLEESQELLEPVVDDVPK	R	T	95.00%	4.18	0.579	0	1	0	0	2	2,746.28	889	912	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	AVTPVPTKTEEVSNLK	R	T	95.00%	3.36	0.558	0	1	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	6.24	0.508	0	0	2	1	2	3,607.64	74	113	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	ETESAPGSPR	K	A	94.30%	1.81	0.238	0	1	0	0	2	1,110.45	514	523	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.38	0.351	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	HSSNPPLESHVGWVMDSR	R	E	95.00%	3.95	0.468	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	KNTFTAWSDEESDYEIDDRDVNK	R	I	91.20%	4.74	0.0575	0	0	2	0	2	2,937.15	620	642	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	2.97	0.313	0	0	2	0	2	2,405.19	130	152	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	5.04	0.0954	0	0	1	0	2	2,729.09	621	642	TRUE	
SNU216_PC1_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	9	11	16	0.10%	14.70%	SLPTTVPESPNYR	R	N	95.00%	2.85	0.355	0	3	0	0	2	1,620.67	766	778	TRUE	
SNU216_PC1_03	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	99.80%	1	1	1	0.01%	2.05%	LDQPVSAPPSPR	K	D	95.00%	2.76	0.277	0	1	0	0	2	1,423.60	235	246	TRUE	
SNU216_PC1_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	3	3	3	0.02%	3.64%	ASNTSTPTKGNTETSASASQTNHVK	K	D	90.90%	5.57	0.0311	0	0	1	0	2	2,599.16	489	513	TRUE	
SNU216_PC1_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	3	3	3	0.02%	3.64%	GGDVSPSPYSSSSWR	R	R	95.00%	3.19	0.318	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216_PC1_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	100.00%	3	3	3	0.02%	3.64%	KSPSPAGGGSSPYSR	R	R	95.00%	2.29	0.477	0	1	0	0	2	1,674.60	339	353	TRUE	
SNU216_PC1_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	4.52	0.521	0	1	0	0	2	2,319.95	172	193	TRUE	
SNU216_PC1_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	99.80%	2	2	2	0.01%	5.22%	YVDEENSDGETSNHR	K	L	95.00%	3.14	0.466	0	1	0	0	2	1,831.68	136	150	TRUE	
SNU216_PC1_03	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	99.80%	2	3	3	0.02%	3.19%	NSPAFLSTDLGDEDVGLGPPAPR	R	T	95.00%	4.17	0.51	0	1	1	0	2	2,405.10	503	525	TRUE	
SNU216_PC1_03	SH3 and multiple ankyrin repeat domains 2 isofo	IPI00220490	134,933.80	99.80%	2	3	3	0.02%	3.19%	TIVAVGSMEEAVILPFR	R	I	95.00%	2.55	0.52	0	1	0	0	2	1,911.97	779	795	TRUE	
SNU216_PC1_03	DLNB11 protein	IPI00328798	157,129.30	100.00%	4	4	4	0.02%	5.34%	ANQISPSNSSLK	K	N	83.50%	2.15	0.147	0	1	0	0	2	1,325.61	84	95	TRUE	
SNU216_PC1_03	DLNB11 protein	IPI00328798	157,129.30	100.00%	4	4	4	0.02%	5.34%	EAPGSPPLSPR	R	G	95.00%	1.76	0.426	0	1	0	0	2	1,267.51	17	27	TRUE	
SNU216_PC1_03	DLNB11 protein	IPI00328798	157,129.30	100.00%	4	4	4	0.02%	5.34%	RPSDLTISINQMGSPGMGHLKSPTLSQVHS	R	S	86.20%	5.9	0.006	0	0	0	1	2	4,443.16	913	953	TRUE	
SNU216_PC1_03	DLNB11 protein	IPI00328798	157,129.30	100.00%	4	4	4	0.02%	5.34%	SPSMAVPSPGWVASPK	K	T	95.00%	3.32	0.408	0	1	0	0	2	1,677.77	997	1012	TRUE	
SNU216_PC1_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	3.53%	AQGEPVAGHESPK	R	I	95.00%	3.05	0.444	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216_PC1_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	99.80%	2	2	2	0.01%	3.53%	DSDQVAQSDGEESPAAEEQLLGEHIK	K	E	95.00%	3.75	0.387	0	0	1	0	2	2,862.23	520	545	TRUE	
SNU216_PC1_03	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	4.35	0.173	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216_PC1_03	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	K	L	95.00%	5.47	0.539	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain-containing protein 4	IPI00440727	152,216.90	100.00%	1	1	1	0.01%	2.35%	EAPSPLMIHSPQMSQFQSLTHQSPPQQNV	R	K	95.00%	3.69	0.175	0	0	0	1	2	3,677.72	1061	1092	TRUE	
SNU216_PC1_03	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.87%	HEVNYQNVVHK	R	L	94.20%	2.04	0.207	0	0	1	0	2	1,446.65	400	410	TRUE	
SNU216_PC1_03	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.87%	RVTQHESDNENEIQIQNK	R	L	95.00%	2.52	0.229	0	1	0	0	2	2,262.01	61	78	TRUE	
SNU216_PC1_03	zinc finger protein 262	IPI00477949,IPI00513965	156,931.00	100.00%	3	4	4	0.02%	1.87%	VTQHESDNENEIQIQNK	R	L	95.00%	4.98	0.329	0	1	1	0	2	2,105.91	62	78	TRUE	
SNU216_PC1_03	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	3	4	4	0.02%	4.68%	IESDTEETQDTSVDHNETGNTGESSVEENEI	K	Q	95.00%	6.15	0.0829	0	0	1	0	2	3,490.38	1198	1228	TRUE	
SNU216_PC1_03	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	3	4	4	0.02%	4.68%	KPNIFYSGPASPARPR	R	Y	95.00%	2.99	0.354	0	1	1	0	2	1,837.91	317	332	TRUE	
SNU216_PC1_03	Isoform 1 of ATPase family AAA domain-containi	IPI00170548	158,558.10	100.00%	3	4	4	0.02%	4.68%	QNSTLVGDKRSDPEQNEK	K	L	95.00%	3.02	0.26	0	0	1	0	2	2,124.96	1129	1146	TRUE	
SNU216_PC1_03	Isoform 1 of Putative helicase MOV-10	IPI00444452,IPI00646886	113,675.50	99.80%	1	1	1	0.01%	1.79%	LSPSTSGPHSHDYLPQER	K	E	95.00%	2.7	0.19	0	0	1	0	2	2,087.92	968	985	TRUE	
SNU216_PC1_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	1	1	1	0.01%	6.15%	RGSSPDVHALLEITEESDAVLVDK	R	S	95.00%	4.15	0.358	0	0	1	0	2	2,740.25	363	386	TRUE	
SNU216_PC1_03	Jumonji/ARID domain-containing protein 1A	IPI00021363,IPI00619935	195,817.50	99.80%	2	2	2	0.01%	1.74%	EKDLDLEPLSDLEEGLEETR	K	D	95.00%	3.62	0.536	0	0	1	0	2	2,410.09	1102	1121	TRUE	
SNU216_PC1_03	Jumonji/ARID domain-containing protein 1A	IPI00021363,IPI00619935	195,817.50	99.80%	2	2	2	0.01%	1.74%	VVSSVSSSPR	R	Q	95.00%	1.96	0.351	0	1	0	0	2	1,084.50	1324	1333	TRUE	
SNU216_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	5	0.03%	5.22%	AETPTESVSEPEVATK	K	Q	95.00%	3.53	0.482	0	2	0	0	2	1,754.77	193	208	TRUE	
SNU216_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	5	0.03%	5.22%	TIQEVLEEQSEDEDR	R	E	95.00%	2.92	0.243	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216_PC1_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	3	3	5	0.03%	5.22%	VLGSEGEEEDEALSPAK	R	G	95.00%	2.58	0.44	0	2	0	0	2	1,839.79	63	79	TRUE	
SNU216_PC1_03	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	1	1	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	3.11	0.211	0	0	0	1	2	2,846.26	686	709	TRUE	
SNU216_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	3	3	3	0.02%	2.64%	EHSNPSPSQDTDGTK	R	A	95.00%	3.14	0.49	0	1	0	0	2	1,679.65	95	109	TRUE	
SNU216_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	3	3	3	0.02%	2.64%	EVSPAPAVAGQSK	R	G	88.00%	2.02	0.189	0	1	0	0	2	1,320.62	1362	1374	TRUE	
SNU216_PC1_03	Signal-induced proliferation-associated 1-like prot	IPI00297254	194,612.50	100.00%	3	3	3	0.02%	2.64%	RPVSFPETPYTVSPAGADR	K	V	95.00%	2.94	0.193	0	0	1	0	2	2,126.99	1132	1150	TRUE	
SNU216_PC1_03	Transient receptor potential cation channel subfa	IPI00290032	212,701.70	99.80%	2	3	3	0.02%	1.93%	HTEQSPTDAYGVINFQGGSHSYR	K	A	95.00%	3.91	0.322	0	0	1	0	2	2,631.13	83	105	TRUE	
SNU216_PC1_03	Transient receptor potential cation channel subfa	IPI00290032	212,701.70	99.80%	2	3	3	0.02%	1.93%	RPSTEDTHEVDSK	R	A	95.00%	3.23	0.496	0	1	1	0	2	1,580.66	1502	1514	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	100.00%	4	4	4	0.02%	3.83%	AGDPGEMPQSPTGLGQPK	R	R	95.00%	3.29	0.157	0	1	0	0	2	1,846.80	1391	1408	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	100.00%	4	4	4	0.02%	3.83%	ASPVTSPAAAFPTASPANK	K	D	95.00%	2.74	0.248	0	1	0	0	2	1,864.88	498	516	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	100.00%	4	4	4	0.02%	3.83%	IMEETSGMEEEEEEEESIAAVPGR	R	R	95.00%	4.04	0.422	0	0	1	0	2	2,632.07	1049	1071	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00296388,IPI00745274,IP	211,484.60	100.00%	4	4	4	0.02%	3.83%	QPSSPSHNTNLR	R	A	84.30%	1.89	0.224	0	1	0	0	2	1,417.62	135	146	TRUE	
SNU216_PC1_03	Protein KIAA0329/KIAA0297	IPI00415054	154,063.50	99.80%	1	1	1	0.01%	2.90%	ADEGSPVEPSQEQDILTSMEASGHLSTNLW	R	E	95.00%	4.81	0.437	0	0	0	1	2	4,475.95	669	709	TRUE	
SNU216_PC1_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	7.12%	HKSDVEIPATVTAFSFEDDTVPLSPLK	R	Y	95.00%	3.87	0.428	0	0	1	0	2	3,023.47	400	426	TRUE	
SNU216_PC1_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	7.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.65	0.178	0	1	1	0	2	1,850.88	636	652	TRUE	
SNU216_PC1_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	3	4	4	0.02%	7.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	5.76	0.452	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.06%	13.10%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	3.86	0.506	0	0	1	0	2	3,065.37	341	365	TRUE	
SNU216_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.06%	13.10%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	3.6	0.402	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.06%	13.10%	QESDPEDDDVK	R	K	95.00%	2.53	0.371	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.06%	13.10%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.45	0.355	0	0	1	0	2	2,653.22	98	121	TRUE	
SNU216_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.06%	13.10%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	3.31	0.43	0	1	1	0	2	2,427.05	378	397	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.06%	13.10%	SLSPGKENVSALDMEK	K	E	95.00%	3.68	0.465	0	1	1	0	2	1,784.81	441	456	TRUE	
SNU216_PC1_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	7	9	9	0.06%	13.10%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	4.08	0.434	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216_PC1_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	6.46%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	3.69	0.387	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216_PC1_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.02	0.36	0	0	1	0	2	2,172.03	344	362	TRUE	
SNU216_PC1_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	3.67	0.434	0	0	0	1	2	3,264.38	394	422	TRUE	
SNU216_PC1_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	4	4	0.02%	6.46%	VGNESPVQELK	K	Q	95.00%	2.51	0.37	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216_PC1_03	103 kDa protein	IPI00646058	102,769.00	100.00%	3	5	6	0.04%	5.35%	ILDILGETCKSEPVK	K	E	95.00%	3.06	0.17	0	1	0	0	2	1,861.84	217	231	TRUE	IPI00005648
SNU216_PC1_03	103 kDa protein	IPI00646058	102,769.00	100.00%	3	5	6	0.04%	5.35%	MSSPEDDSDTKR	K	L	95.00%	2.96	0.294	0	2	1	0	2	1,447.54	382	393	TRUE	
SNU216_PC1_03	103 kDa protein	IPI00646058	102,769.00	100.00%	3	5	6	0.04%	5.35%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.18	0.457	0	0	1	1	2	3,056.37	227	253	TRUE	IPI00005648
SNU216_PC1_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	5	8	0.05%	6.81%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	5.32	0.534	0	2	3	0	2	2,296.94	948	966	TRUE	
SNU216_PC1_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	5	8	0.05%	6.81%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	95.00%	5.89	0.0982	0	0	1	1	2	4,426.91	1057	1096	TRUE	
SNU216_PC1_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	5	8	0.05%	6.81%	VIPEDASESEEKLDQK	K	E	95.00%	2.59	0.212	0	1	0	0	2	1,896.85	915	930	TRUE	
SNU216_PC1_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	99.40%	2	2	3	0.02%	3.35%	FPPEDFRHSPEDFR	R	R	87.00%	2.13	0.199	0	0	1	0	2	1,855.78	567	580	TRUE	
SNU216_PC1_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	99.40%	2	2	3	0.02%	3.35%	SRSPLGFYVHLK	R	N	95.00%	2.89	0.343	0	0	2	0	2	1,483.75	278	289	TRUE	
SNU216_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	4.68%	RSSGFISELPSEEGK	K	K	95.00%	4.05	0.483	0	1	1	0	2	1,702.77	185	199	TRUE	
SNU216_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	4.68%	RSSGFISELPSEEGKK	K	L	95.00%	2.84	0.287	0	0	1	0	2	1,830.86	185	200	TRUE	
SNU216_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	4.68%	SERPPTILMTEEPSSPK	K	G	95.00%	3.44	0.328	0	1	1	0	2	1,978.92	299	315	TRUE	
SNU216_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	4.68%	SWGQQAQEYQEQK	R	Q	95.00%	3.04	0.29	0	1	0	0	2	1,689.69	505	517	TRUE	
SNU216_PC1_03	leucine rich repeat containing 16	IPI00014843,IPI00746051	60,890.80	100.00%	5	7	7	0.04%	4.68%	TASRPDDIPDSPSSPK	R	V	95.00%	3.39	0.467	0	1	0	0	2	1,749.77	452	467	TRUE	
SNU216_PC1_03	Sulfate transporter	IPI00032107	81,651.90	99.70%	2	3	3	0.02%	3.65%	DSAEGNDSYPSGIHLELQR	R	E	95.00%	4.48	0.571	0	0	1	0	2	2,167.93	15	33	TRUE	
SNU216_PC1_03	Sulfate transporter	IPI00032107	81,651.90	99.70%	2	3	3	0.02%	3.65%	EQHNVSPRDSAEGNDSYPSGIHLELQR	K	E	94.90%	4.41	0.104	0	0	1	1	2	3,115.39	7	33	TRUE	
SNU216_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	3	3	4	0.02%	1.56%	SLLGIDTEDAIQGR	R	N	95.00%	2.97	0.406	0	1	0	0	2	1,567.74	1750	1763	TRUE	
SNU216_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	3	3	4	0.02%	1.56%	SVPVNNLPERSPTDSPR	K	E	95.00%	2.59	0.226	0	0	2	0	2	2,024.88	3165	3181	TRUE	
SNU216_PC1_03	CENP-F kinetochore protein	IPI00027157	367,594.20	100.00%	3	3	4	0.02%	1.56%	VAQRSPVDSGTILREPTTK	K	S	95.00%	4.33	0.379	0	0	1	0	2	2,135.09	3146	3164	TRUE	
SNU216_PC1_03	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	3.77%	KASPEPPDSAEGALK	R	L	95.00%	3.91	0.495	0	1	0	0	2	1,576.73	545	559	TRUE	
SNU216_PC1_03	Protein C14orf4	IPI00019205	82,658.10	99.80%	2	2	2	0.01%	3.77%	NSSSPVSPASVPGQR	R	R	95.00%	2.52	0.299	0	1	0	0	2	1,629.67	656	670	TRUE	
SNU216_PC1_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	99.80%	1	1	1	0.01%	6.58%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	5.29	0.461	0	0	1	0	2	2,777.16	134	157	TRUE	
SNU216_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	1.58%	GGSSKDLLDNQSQEEQR	K	R	95.00%	2.49	0.179	0	1	0	0	2	1,970.85	1154	1170	TRUE	
SNU216_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	1.58%	GGSSKDLLDNQSQEEQRR	R	E	95.00%	2.6	0.319	0	0	1	0	2	2,126.95	1154	1171	TRUE	
SNU216_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00646377	176,655.90	100.00%	3	3	3	0.02%	1.58%	SPSPVLR	K	L	95.00%	1.74	0.341	0	1	0	0	2	835.4074	230	236	TRUE	
SNU216_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	KISGTTALQEALK	R	E	95.00%	2.83	0.434	0	1	0	0	2	1,439.75	346	358	TRUE	
SNU216_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	KISGTTALQEALKEK	R	Q	95.00%	3.06	0.341	0	0	1	0	2	1,696.89	346	360	TRUE	
SNU216_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	SPSASSLSSMSSVASSVSSR	R	P	95.00%	4.68	0.0635	0	1	0	0	2	1,980.86	310	329	TRUE	
SNU216_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	SPSASSLSSMSSVASSVSSRPSR	R	T	95.00%	2.55	0.199	0	0	1	0	2	2,321.04	310	332	TRUE	
SNU216_PC1_03	Isoform Long of Restin	IPI00027172,IPI00217113	156,784.40	100.00%	5	5	5	0.03%	3.78%	TASESISNLSEAGSIK	K	K	95.00%	2.95	0.319	0	1	0	0	2	1,673.76	191	206	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	99.80%	1	1	1	0.01%	1.53%	QPLLLSEDEEDTKR	K	V	95.00%	3.53	0.155	0	0	1	0	2	1,752.81	34	47	TRUE	
SNU216_PC1_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.84	0.42	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216_PC1_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	3.13	0.215	0	1	1	0	2	2,089.00	609	627	TRUE	
SNU216_PC1_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	5	6	0.04%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	4.35	0.51	0	0	2	0	2	3,072.32	1263	1291	TRUE	
SNU216_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	5	7	8	0.05%	4.72%	DSDYVYPSLESDEDNPIFK	K	S	95.00%	3.14	0.298	0	1	1	0	2	2,312.95	872	890	TRUE	
SNU216_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	5	7	8	0.05%	4.72%	ESASPTIPNLDLLEAHTK	R	E	95.00%	2.93	0.328	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	5	7	8	0.05%	4.72%	GSDDAPYSPTAR	K	V	95.00%	2.38	0.323	0	1	0	0	2	1,316.52	898	909	TRUE	
SNU216_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	5	7	8	0.05%	4.72%	KGSDDAPYSPTAR	R	V	95.00%	2.92	0.307	0	2	0	0	2	1,444.61	897	909	TRUE	
SNU216_PC1_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	100.00%	5	7	8	0.05%	4.72%	SRESASPTIPNLDLLEAHTK	K	E	93.70%	3.1	0.156	0	0	1	0	2	2,259.10	534	553	TRUE	
SNU216_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	5.07%	AESGDSLGSEDRDLLYSIDAYR	R	S	95.00%	3.38	0.348	0	0	1	0	2	2,512.09	656	677	TRUE	
SNU216_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	5.07%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	3.7	0.29	0	0	1	0	2	2,206.01	40	59	TRUE	
SNU216_PC1_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	5.07%	ATSPVKSTTSITDAK	K	S	95.00%	3.02	0.481	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC1_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	1.94%	DYDDMSPR	R	R	95.00%	1.42	0.327	0	1	0	0	2	1,078.35	279	286	TRUE	
SNU216_PC1_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	2	2	2	0.01%	1.94%	RDYDDMSPR	R	R	95.00%	2.04	0.249	0	1	0	0	2	1,234.46	278	286	TRUE	
SNU216_PC1_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.02%	4.12%	KTESPIKLSPATPSR	K	K	95.00%	3.54	0.252	0	1	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC1_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.02%	4.12%	SPPLPAVIR	R	N	95.00%	1.74	0.314	0	1	0	0	2	1,029.55	553	561	TRUE	
SNU216_PC1_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	100.00%	3	4	4	0.02%	4.12%	SVAVSDEEEVEEEAER	R	R	95.00%	3.4	0.375	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC440193 isofo	IPI00737659,IPI00740019	228,218.60	98.70%	1	1	1	0.01%	1.04%	NTSSNSSPLNLKGSSEQLHGR	R	S	95.00%	3.38	0.328	0	0	1	0	2	2,293.06	1578	1598	TRUE	
SNU216_PC1_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.80%	2	4	4	0.02%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	5.3	0.473	0	0	1	1	2	3,538.48	736	766	TRUE	
SNU216_PC1_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.80%	2	4	4	0.02%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	3.76	0.438	0	1	1	0	2	2,024.89	251	267	TRUE	
SNU216_PC1_03	PREDICTED: similar to fat3	IPI00735918	507,101.70	100.00%	2	2	2	0.01%	0.98%	IVDGLGGEHQEMTTFHPESPR	K	I	93.30%	2.83	0.229	0	0	1	0	2	2,417.06	4296	4316	TRUE	
SNU216_PC1_03	PREDICTED: similar to fat3	IPI00735918	507,101.70	100.00%	2	2	2	0.01%	0.98%	LSDIEEVPNYENQDGGSAHQGSTR	R	E	95.00%	3.91	0.221	0	0	1	0	2	2,683.13	4409	4432	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	1	2	2	0.01%	3.81%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	4.15	0.443	0	0	1	1	2	3,586.35	473	502	TRUE	
SNU216_PC1_03	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	2	2	0.01%	1.26%	GPVGTVSEAQLAR	K	R	95.00%	2.19	0.404	0	1	0	0	2	1,364.66	168	180	TRUE	
SNU216_PC1_03	Isoform 1 of Myoferlin	IPI00021048	234,715.60	100.00%	2	2	2	0.01%	1.26%	SRSLSQIHEAAVR	R	M	95.00%	2.39	0.228	0	0	1	0	2	1,533.75	727	739	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	AEGEWEDQEALDYFSDKESGK	R	Q	95.00%	4.11	0.384	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	ETQSPEQVKSEK	K	L	95.00%	3.43	0.426	0	1	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.24	0.55	0	4	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.49	0.445	0	0	1	1	2	2,726.13	369	391	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	KAEGEPQEESPLK	K	S	95.00%	3.03	0.34	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	KAEGEPQEESPLKSK	K	S	95.00%	4.21	0.392	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	KETQSPEQVKSEK	K	L	95.00%	2.91	0.351	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	LKDLFDYSPPLHK	K	N	95.00%	3.22	0.312	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	NTPSQHSHSIQHSPER	K	S	95.00%	2.59	0.298	0	1	2	0	2	1,921.83	256	271	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.71	0.513	0	1	0	0	2	2,257.84	392	409	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.22	0.301	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	3.7	0.418	0	1	0	0	2	2,160.92	205	224	TRUE	
SNU216_PC1_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	13	18	22	0.14%	16.80%	YSPSQNSPIHHPSR	R	R	95.00%	3.15	0.393	0	0	1	0	2	1,799.82	284	298	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	zinc finger transcription factor TRPS1	IPI00296078	143,023.70	99.90%	1	1	1	0.01%	1.16%	TLRDSPNVEAAHLAR	K	P	95.00%	3.7	0.32	0	0	1	0	2	1,729.84	839	853	TRUE	
SNU216_PC1_03	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	100.00%	2	3	3	0.02%	3.98%	ADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	3.64	0.369	0	0	1	0	2	3,164.27	543	570	TRUE	
SNU216_PC1_03	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	100.00%	2	3	3	0.02%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	3.97	0.325	0	0	1	1	2	3,320.37	542	570	TRUE	
SNU216_PC1_03	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	3.3	0.306	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216_PC1_03	nadrin isoform 1	IPI00064767	95,437.00	99.80%	2	2	2	0.01%	6.58%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	4.14	0.431	0	0	1	0	2	2,687.26	674	699	TRUE	
SNU216_PC1_03	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	2	2	2	0.01%	1.39%	DVDDGSGSPHSPHQLSSK	R	S	95.00%	1.68	0.345	0	1	0	0	2	2,009.76	2022	2039	TRUE	
SNU216_PC1_03	Isoform 1 of Serine/threonine-protein kinase WNI	IPI00004472,IPI00397590,IP	250,750.30	100.00%	2	2	2	0.01%	1.39%	SGSGGGSAKEPQEER	R	S	95.00%	2.47	0.265	0	1	0	0	2	1,635.60	183	197	TRUE	
SNU216_PC1_03	Isoform 1 of Probable helicase senataxin	IPI00142538,IPI00719643	302,955.50	99.90%	1	1	1	0.01%	0.56%	KSSPFKDLMTVPESR	K	D	95.00%	3.9	0.432	0	0	1	0	2	1,801.86	909	923	TRUE	
SNU216_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	7	9	0.06%	8.47%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	2.16	0.373	0	2	2	0	2	2,233.05	538	560	TRUE	
SNU216_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	7	9	0.06%	8.47%	GPTPPAMGPR	R	D	95.00%	2.06	0.418	0	1	0	0	2	1,060.46	95	104	TRUE	
SNU216_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	7	9	0.06%	8.47%	LSASTASELSPK	R	S	95.00%	2.12	0.254	0	1	0	0	2	1,270.59	451	462	TRUE	
SNU216_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	7	9	0.06%	8.47%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.26	0.33	0	1	1	0	2	1,989.93	111	129	TRUE	
SNU216_PC1_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	5	7	9	0.06%	8.47%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	3.99	0.371	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC1_03	glutamyl-prolyl tRNA synthetase	IPI00013452	170,593.20	100.00%	1	1	1	0.01%	1.46%	TGKEYIPGQPPLSQSSDSSPTR	K	N	87.30%	3.64	0.0005	0	1	0	0	2	2,412.11	868	889	TRUE	
SNU216_PC1_03	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	5	0.03%	4.76%	HSDNEAESIADALSSTSNILASEFFEEEKQESI	K	S	95.00%	6.57	0.249	0	0	0	1	2	3,819.68	1147	1180	TRUE	
SNU216_PC1_03	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	5	0.03%	4.76%	KHSDNEAESIADALSSTSNILASEFFEEEKQES	R	S	95.00%	4.56	0.218	0	0	0	2	2	3,947.77	1146	1180	TRUE	
SNU216_PC1_03	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	5	0.03%	4.76%	STFSPAPRPEMPGTVEVESTFLAR	K	L	95.00%	3.21	0.294	0	0	1	0	2	2,686.26	1181	1204	TRUE	
SNU216_PC1_03	PHD finger protein 3	IPI00170770	229,481.10	100.00%	4	4	5	0.03%	4.76%	VAQNSPSVENIQTSQAEQAKPLQEDILMQM	K	R	95.00%	3.69	0.308	0	0	0	1	2	4,370.11	1718	1755	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7.65	0.654	0	0	1	0	2	3,607.53	769	801	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.23	0.445	0	2	0	0	2	1,779.74	5	21	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	DPAQPMSPGEATQSGARPADR	R	Y	87.10%	2.57	0.164	0	0	1	0	2	2,218.96	5	25	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	EIPSATQSPISK	K	K	95.00%	2.08	0.352	0	1	0	0	2	1,417.60	1156	1167	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	KGVLGKSPLSALAR	K	K	95.00%	3.09	0.489	0	0	1	0	2	1,476.83	1284	1297	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.16	0.315	0	0	2	0	2	2,300.10	1254	1275	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.08	0.426	0	2	2	0	2	2,172.01	1255	1275	TRUE	
SNU216_PC1_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	149,371.00	100.00%	8	9	13	0.08%	9.71%	RKSEDGTPAEDGTPAATGGSQPPSMGR	K	K	95.00%	3.19	0.401	0	0	1	0	2	2,737.19	1184	1210	TRUE	
SNU216_PC1_03	Midasin	IPI00167941	632,826.30	100.00%	2	2	2	0.01%	0.61%	AEENTDQASPQEDYAGFER	K	L	95.00%	3.36	0.362	0	0	1	0	2	2,236.87	4530	4548	TRUE	
SNU216_PC1_03	Midasin	IPI00167941	632,826.30	100.00%	2	2	2	0.01%	0.61%	EDSDTEEQVPEALER	R	K	95.00%	3.33	0.481	0	1	0	0	2	1,826.73	5013	5027	TRUE	
SNU216_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.82%	AKPVVSDDDSEEEQEEDR	R	S	95.00%	2.5	0.401	0	1	1	0	2	2,236.82	1654	1671	TRUE	
SNU216_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.82%	DSDAGSSTPTTSTR	R	S	90.90%	2.43	0.143	0	1	0	0	2	1,462.57	1448	1461	TRUE	
SNU216_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.82%	IPDPDSDDVSEVDAR	K	H	95.00%	3.34	0.413	0	1	0	0	2	1,709.69	690	704	TRUE	
SNU216_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.82%	KIPDPDSDDVSEVDAR	K	H	95.00%	3.73	0.551	0	1	1	0	2	1,837.79	689	704	TRUE	
SNU216_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.82%	KKIPDPDSDDVSEVDAR	K	H	95.00%	3.5	0.449	0	0	1	0	2	1,965.88	688	704	TRUE	
SNU216_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.82%	KRDSDAGSSTPTTSTR	R	S	95.00%	2.46	0.413	0	1	0	0	2	1,746.77	1446	1461	TRUE	
SNU216_PC1_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	100.00%	7	9	9	0.06%	4.82%	QKIEKEDDSEGEESEEEEEGEEEGSESESR	R	S	95.00%	2.02	0.475	0	0	1	0	2	3,684.27	1594	1623	TRUE	
SNU216_PC1_03	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	AQTLPTSVVTITSESSPGKR	R	E	95.00%	4.12	0.0423	0	1	0	0	2	2,139.07	2326	2345	TRUE	
SNU216_PC1_03	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	GEQVSQNGLPAEQGSPR	K	M	95.00%	2.58	0.273	0	1	0	0	2	1,833.81	2124	2140	TRUE	
SNU216_PC1_03	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	RPPSPEPSTK	R	V	93.80%	1.91	0.264	0	1	0	0	2	1,175.55	2099	2108	TRUE	
SNU216_PC1_03	Isoform Long of Spectrin beta chain, brain 1	IPI00005614	274,635.40	100.00%	4	4	4	0.02%	2.62%	VSEEAESQQQWDTSKGEQVSQNGLPAEQ	K	M	95.00%	5.81	0.452	0	0	1	0	2	3,566.57	2109	2140	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.81	0.234	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	GSPTSAYPER	K	K	95.00%	1.83	0.457	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	GSPVPPVPER	R	R	93.80%	1.75	0.316	0	1	0	0	2	1,114.53	913	922	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	HGSDPAFAPGPR	R	G	95.00%	2.69	0.405	0	1	1	0	2	1,288.55	521	532	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	RGSLTLTISGESPK	R	A	95.00%	2.52	0.237	0	0	1	0	2	1,525.76	934	947	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	RGSPVPPVPER	R	R	95.00%	2.4	0.252	0	1	1	0	2	1,270.63	912	922	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	RGSPVPPVPERR	R	S	95.00%	3.06	0.196	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	RLSLGQGDSTEAATEER	R	G	95.00%	3.23	0.29	0	0	1	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	RMEDEGGFPVPQENGQPESPRR	R	L	95.00%	2.87	0.272	0	0	2	0	2	2,592.13	980	1001	TRUE	
SNU216_PC1_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	10	12	13	0.08%	12.10%	VPAAFPTKVPVPGPGSGGNGPER	R	E	95.00%	4.09	0.27	0	0	1	0	2	2,268.12	632	654	TRUE	
SNU216_PC1_03	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	LKTEKEPDATPPSPR	K	T	95.00%	3.42	0.446	0	0	1	0	2	1,745.85	329	343	TRUE	
SNU216_PC1_03	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	NAPAAVDEGSISPR	R	T	95.00%	3.28	0.507	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	93.10%	4.21	0.105	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	TQEISRPNSPSEGEGESSDSR	K	S	95.00%	3.76	0.466	0	0	1	0	2	2,328.96	671	691	TRUE	
SNU216_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	TSPINEDIR	R	S	95.00%	1.73	0.3	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	VASDTEEADR	K	T	95.00%	2.61	0.512	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216_PC1_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	5	5	5	0.03%	4.47%	VASDTEEADRTSSK	K	K	95.00%	2.43	0.342	0	1	0	0	2	1,575.65	654	667	TRUE	
SNU216_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	7	8	9	0.06%	6.73%	DASLHGLSQYNSL	R	-	95.00%	3.21	0.391	0	1	0	0	2	1,484.64	1593	1605	TRUE	
SNU216_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	7	8	9	0.06%	6.73%	DHAPSIPTSPFGDSLESSTELR	R	R	95.00%	3.7	0.472	0	0	1	0	2	2,423.08	249	270	TRUE	
SNU216_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	7	8	9	0.06%	6.73%	EDVTPPLSPDDLK	K	Y	95.00%	2.46	0.281	0	2	0	0	2	1,585.64	1049	1061	TRUE	
SNU216_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	7	8	9	0.06%	6.73%	EGPVGGESDSEEMFEK	R	T	95.00%	3.56	0.479	0	1	0	0	2	1,806.68	404	419	TRUE	
SNU216_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	7	8	9	0.06%	6.73%	GLPSTSSKEDVTPPLSPDDLK	K	Y	90.10%	2.63	0.179	0	0	1	0	2	2,343.04	1041	1061	TRUE	
SNU216_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	7	8	9	0.06%	6.73%	REGPVGGESDSEEMFEK	K	T	95.00%	3.82	0.375	0	1	1	0	2	1,962.78	403	419	TRUE	
SNU216_PC1_03	KIAA0802 protein	IPI00411635	179,577.30	100.00%	7	8	9	0.06%	6.73%	WAPHSPTASQPQSPGDPTSLEEHGGEEPPE	R	D	80.50%	5.3	0.0166	0	0	0	1	2	3,958.63	1558	1592	TRUE	
SNU216_PC1_03	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.18%	KNSWEPKPITVPQFK	K	Q	95.00%	3.01	0.202	0	0	1	0	2	1,878.95	679	693	TRUE	
SNU216_PC1_03	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.18%	SEDSGIGLSASSPELSEHLR	K	V	89.10%	2.75	0.177	0	0	1	0	2	2,150.96	586	605	TRUE	
SNU216_PC1_03	Protein C21orf5	IPI00294653	258,230.60	100.00%	3	3	3	0.02%	2.18%	SSESPSSSPSSPARK	K	N	95.00%	1.92	0.258	0	1	0	0	2	1,570.67	711	725	TRUE	
SNU216_PC1_03	CDA02	IPI00012462	67,852.50	99.70%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.5	0.429	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216_PC1_03	Baculoviral IAP repeat-containing protein 6	IPI00299635	527,609.80	99.80%	1	2	2	0.01%	0.39%	LEGDSDDLLEDSDSEEHSR	K	S	95.00%	4.02	0.342	0	1	1	0	2	2,227.85	441	459	TRUE	
SNU216_PC1_03	Gem-associated protein 5	IPI00291783	168,562.60	100.00%	1	1	1	0.01%	2.45%	TPVKLESIDGNEEESMKENSGPVENGVSDQ	R	E	93.80%	3.35	0.16	0	0	0	1	2	4,097.78	751	787	TRUE	
SNU216_PC1_03	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	6	6	0.04%	3.08%	EKQEEEVDYESEEEEER	K	E	95.00%	4.4	0.442	0	1	1	0	2	2,265.86	1419	1435	TRUE	
SNU216_PC1_03	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	6	6	0.04%	3.08%	EKQEEEVDYESEEEEEREGEENDDEDMQEE	K	N	95.00%	5.77	0.6	0	0	1	1	2	3,971.46	1419	1449	TRUE	
SNU216_PC1_03	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	6	6	0.04%	3.08%	LPEEVATPTTDEEKDSLIAIDR	K	S	95.00%	4.15	0.391	0	0	1	0	2	2,522.19	351	372	TRUE	
SNU216_PC1_03	polymerase (RNA) I polypeptide A, 194kDa	IPI00031960	194,814.50	100.00%	4	6	6	0.04%	3.08%	QEEEVDYESEEEEER	K	E	95.00%	2.62	0.375	0	1	0	0	2	2,008.72	1421	1435	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	5.91	0.261	0	0	2	0	2	2,877.32	600	626	TRUE	
SNU216_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	3.41	0.397	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	7.32	0.55	0	0	1	0	2	3,292.37	627	658	TRUE	
SNU216_PC1_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	4	5	0.03%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	5.74	0.435	0	0	0	1	2	3,319.53	596	626	TRUE	
SNU216_PC1_03	Caskin-2	IPI00103516	126,713.60	100.00%	3	3	3	0.02%	3.00%	GSGHSQEQPAPQPSGGDPSPPQER	R	N	95.00%	4.25	0.447	0	0	1	0	2	2,507.06	707	730	TRUE	
SNU216_PC1_03	Caskin-2	IPI00103516	126,713.60	100.00%	3	3	3	0.02%	3.00%	SPSQESIGAR	R	S	95.00%	1.95	0.271	0	1	0	0	2	1,111.48	695	704	TRUE	
SNU216_PC1_03	Caskin-2	IPI00103516	126,713.60	100.00%	3	3	3	0.02%	3.00%	SRGSGHSQEQPAPQPSGGDPSPPQER	R	N	95.00%	3.94	0.264	0	0	1	0	2	2,750.19	705	730	TRUE	
SNU216_PC1_03	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	2.73%	AHSPALGVHSFSGVQR	R	F	95.00%	3.34	0.463	0	0	1	0	2	1,729.82	353	368	TRUE	
SNU216_PC1_03	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	2.73%	LLGSLDEVVLLSPVPELRDSSK	K	L	95.00%	3.53	0.371	0	0	1	0	2	2,446.28	544	565	TRUE	
SNU216_PC1_03	Anaphase-promoting complex subunit 1	IPI00033907	216,503.30	100.00%	3	3	3	0.02%	2.73%	NFDFEGSLSPVIAPK	R	K	95.00%	2.88	0.322	0	1	0	0	2	1,700.79	680	694	TRUE	
SNU216_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	ALSPVTSR	K	T	95.00%	1.49	0.325	0	1	0	0	2	910.4394	697	704	TRUE	
SNU216_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	KASISLTDDEVDDEEETIEEEEANEGVVDHQ	R	E	95.00%	7.16	0.0038	0	0	0	1	2	4,490.90	902	940	TRUE	
SNU216_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	RSPPIKPLLGMNPFQK	K	N	95.00%	3.66	0.444	0	0	1	0	2	1,903.00	2438	2453	TRUE	
SNU216_PC1_03	Isoform 2 of E1A-binding protein p400	IPI00064931,IPI00167535,IP	339,689.90	100.00%	4	4	4	0.02%	2.94%	VAVNALAVGEPGTASKPASPIGGPTQEEK	R	T	95.00%	4.83	0.367	0	0	1	0	2	2,855.42	1677	1705	TRUE	
SNU216_PC1_03	Isoform 2 of Solute carrier family 12 member 2	IPI00022649,IPI00220844	129,684.00	100.00%	2	2	2	0.01%	4.01%	KESKGPIVPLNVADQK	H	L	95.00%	3.16	0.384	0	0	1	0	1	1,802.94	976	991	TRUE	
SNU216_PC1_03	Isoform 2 of Solute carrier family 12 member 2	IPI00022649,IPI00220844	129,684.00	100.00%	2	2	2	0.01%	4.01%	LLRPSLAELHDELEKEPFEDGFANGEESTPTR	K	D	95.00%	4.62	0.312	0	0	0	1	2	3,706.73	238	269	TRUE	
SNU216_PC1_03	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	3	3	3	0.02%	4.16%	ASGDPGASGMSPR	K	A	95.00%	2.26	0.444	0	1	0	0	2	1,269.49	99	111	TRUE	
SNU216_PC1_03	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	3	3	3	0.02%	4.16%	DRTPPHLLYSDR	R	D	95.00%	3.15	0.403	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216_PC1_03	RNA binding motif protein 15B	IPI00175136	97,208.40	100.00%	3	3	3	0.02%	4.16%	TFLEGDWTSPSK	R	S	95.00%	2.77	0.426	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	7	10	11	0.07%	4.82%	DTEQKELDQDMVTEDEDDPGSHK	K	R	95.00%	3.85	0.527	0	0	1	0	2	2,741.08	720	742	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	7	10	11	0.07%	4.82%	DTEQKELDQDMVTEDEDDPGSHKR	K	G	95.00%	5.36	0.428	0	0	1	1	2	2,897.18	720	743	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	7	10	11	0.07%	4.82%	ELDQDMVTEDEDDPGSHKR	K	G	95.00%	4.05	0.41	0	1	2	1	2	2,295.91	725	743	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	7	10	11	0.07%	4.82%	EPLTADEEEALKQEHQR	R	K	95.00%	2.85	0.183	0	0	1	0	2	2,102.94	769	785	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	7	10	11	0.07%	4.82%	KRQSPEPSPVTLGR	R	R	95.00%	3.37	0.225	0	0	1	0	2	1,631.83	1411	1424	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	7	10	11	0.07%	4.82%	LGLHVTPSNVDQVSTPPAAK	K	K	95.00%	3.65	0.408	0	0	1	0	2	2,111.05	1534	1553	TRUE	
SNU216_PC1_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00412415,IPI00743026	178,763.50	100.00%	7	10	11	0.07%	4.82%	RQSPEPSPVTLGR	K	R	95.00%	2.74	0.392	0	0	1	0	2	1,503.73	1412	1424	TRUE	
SNU216_PC1_03	Transmembrane 9 superfamily protein member 4	IPI00021985	72,543.60	100.00%	1	1	1	0.01%	1.92%	KEKDVQFEHGYR	K	L	94.70%	2.25	0.206	0	1	0	0	2	1,615.73	140	151	TRUE	
SNU216_PC1_03	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	3.00%	GSEEDEEEKLEDDDKSEESSQPEAGAVSR	K	G	95.00%	5.14	0.165	0	0	1	0	2	3,261.31	2236	2264	TRUE	
SNU216_PC1_03	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	3.00%	TPFKDEIDEFANSPSEDKEESMEIHATGK	R	H	95.00%	4.07	0.214	0	0	0	1	2	3,361.45	1862	1890	TRUE	
SNU216_PC1_03	chromodomain helicase DNA binding protein 7	IPI00472901	335,929.80	100.00%	3	3	3	0.02%	3.00%	VPVHQHSPSEPFLEKPVPDMTQVSGPNAQ	K	S	95.00%	4.8	0.382	0	0	0	1	2	3,572.76	551	582	TRUE	
SNU216_PC1_03	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.00%	2	2	3	0.02%	2.41%	SSSPGKPQAVSSLNSSHSR	R	S	95.00%	4.98	0.512	0	0	2	0	2	1,992.91	178	196	TRUE	
SNU216_PC1_03	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.00%	2	2	3	0.02%	2.41%	TISQSSSLK	R	S	80.90%	1.42	0.196	1	0	0	0	2	1,030.48	834	842	TRUE	
SNU216_PC1_03	Isoform 1 of Pogo transposable element with ZNI	IPI00410717,IPI00410718,IP	151,210.70	99.80%	1	2	2	0.01%	1.35%	SLDSEPSVPSAAKPPSPEK	K	T	95.00%	3.68	0.476	0	0	1	1	2	2,002.94	357	375	TRUE	
SNU216_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	7	7	0.04%	6.73%	DKASPEPEKDFSEK	K	A	95.00%	2.88	0.249	0	1	0	0	2	1,686.73	684	697	TRUE	
SNU216_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	7	7	0.04%	6.73%	ELSESVQQQSTPVPLISPK	K	R	95.00%	3.02	0.421	0	1	0	0	2	2,147.06	550	568	TRUE	
SNU216_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	7	7	0.04%	6.73%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	3.61	0.435	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	7	7	0.04%	6.73%	SPMSTNSSVHTGSDVEQDAEK	R	K	95.00%	3.21	0.19	0	0	1	0	2	2,285.92	451	471	TRUE	
SNU216_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	7	7	0.04%	6.73%	SPMSTNSSVHTGSDVEQDAEKK	R	A	85.20%	3.8	0.0838	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	7	7	0.04%	6.73%	STSPASEKADPGAVK	K	D	95.00%	2.28	0.291	0	1	0	0	2	1,604.66	669	683	TRUE	
SNU216_PC1_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	7	7	7	0.04%	6.73%	VKLNFDMTASPK	K	I	93.10%	2.62	0.132	0	1	0	0	2	1,430.68	416	427	TRUE	
SNU216_PC1_03	Vigilin	IPI00022228	141,442.20	100.00%	2	2	3	0.02%	1.97%	VATLNSEEESDPPTYK	K	D	95.00%	4.16	0.534	0	2	0	0	2	1,859.79	26	41	TRUE	
SNU216_PC1_03	Vigilin	IPI00022228	141,442.20	100.00%	2	2	3	0.02%	1.97%	VATLNSEEESDPPTYKDAFPPLPEK	K	A	95.00%	3.19	0.256	0	0	1	0	2	2,854.31	26	50	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	ERGSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.93	0.604	0	0	1	1	2	3,198.54	273	302	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	GQSQLSNPTDDSWK	R	G	95.00%	2.13	0.28	0	1	0	0	2	1,722.64	1523	1536	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	GSSLSGTDDGAQEVVK	R	D	95.00%	2.97	0.456	0	1	0	0	2	1,629.70	275	290	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	GSSLSGTDDGAQEVVKDILEDVVTSAIK	R	E	95.00%	6.18	0.585	0	0	1	1	2	2,913.40	275	302	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	HLDVDLDRQSLSSIDKNPSER	K	G	95.00%	2.62	0.232	0	0	0	1	2	2,504.18	1502	1522	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	PQSPVIQAAAVSPK	K	F	95.00%	2.62	0.208	0	1	0	0	2	1,472.75	216	229	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002186	202,096.90	100.00%	7	9	9	0.06%	5.60%	QSLSSADNLESDAQGHQVAAR	R	F	95.00%	4.25	0.29	0	0	1	0	2	2,263.99	345	365	TRUE	
SNU216_PC1_03	Putative RNA-binding protein 16	IPI00298884,IPI00744707	140,518.80	99.80%	1	2	2	0.01%	1.57%	SSEPVKETVQTTQSPTPVEK	K	E	95.00%	4.41	0.358	0	1	1	0	2	2,252.07	604	623	TRUE	
SNU216_PC1_03	74 kDa protein	IPI00604517	74,428.20	100.00%	1	1	2	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEIEF	K	A	95.00%	6.19	0.765	0	0	2	0	2	4,199.41	119	153	TRUE	
SNU216_PC1_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	9	0.06%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.12	0.393	0	0	1	0	2	2,056.01	856	874	TRUE	
SNU216_PC1_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	9	0.06%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	5.03	0.459	0	0	2	1	2	2,727.34	846	871	TRUE	
SNU216_PC1_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	5	9	0.06%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	6.58	0.425	0	0	3	2	2	3,113.52	846	874	TRUE	
SNU216_PC1_03	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	100.00%	3	4	4	0.02%	2.85%	DDDTASVTSLNSSATGR	R	C	83.00%	3.43	0.0368	0	1	0	0	2	1,776.73	1168	1184	TRUE	
SNU216_PC1_03	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	100.00%	3	4	4	0.02%	2.85%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	E	95.00%	5.62	0.524	0	0	1	1	2	3,839.87	515	548	TRUE	
SNU216_PC1_03	Isoform 2 of Transcription initiation factor TFIID s	IPI00149098	214,718.30	100.00%	3	4	4	0.02%	2.85%	LLEPPVLTLDPNDENLILEIPDEKEEATSNSPS	R	K	82.70%	5.44	0.0153	0	0	0	1	2	4,184.04	515	551	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase MRCK beta	IPI00477763	194,318.00	99.80%	1	1	2	0.01%	1.23%	HSTPSNSSNPSGPPSPNSPHR	K	S	95.00%	5.65	0.459	0	0	2	0	2	2,220.94	1676	1696	TRUE	
SNU216_PC1_03	80 kda MCM3-associated protein	IPI00028954	218,405.30	99.80%	2	2	4	0.02%	1.87%	KPGDGEVSPSTEDAPFQHSPLGK	K	A	95.00%	4.51	0.472	0	0	3	0	2	2,460.11	520	542	TRUE	
SNU216_PC1_03	80 kda MCM3-associated protein	IPI00028954	218,405.30	99.80%	2	2	4	0.02%	1.87%	TGASSLLNKSSPVK	R	K	95.00%	3.3	0.287	0	1	0	0	2	1,468.74	547	560	TRUE	
SNU216_PC1_03	DNA excision repair protein ERCC-6	IPI00414779	168,419.30	99.80%	1	1	1	0.01%	0.87%	TSMPSGDESIDEK	K	L	95.00%	2.96	0.564	0	1	0	0	2	1,475.56	1138	1150	TRUE	
SNU216_PC1_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	5	5	0.03%	8.20%	AAESPDQKDTEGGPKEEESPV	K	-	95.00%	4.9	0.409	0	1	0	0	2	2,279.96	480	500	TRUE	
SNU216_PC1_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	5	5	0.03%	8.20%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.3	0.436	0	1	1	0	2	1,925.87	463	479	TRUE	
SNU216_PC1_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	5	5	0.03%	8.20%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	4	0.426	0	1	0	1	2	2,270.04	460	479	TRUE	
SNU216_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	7	10	0.06%	4.68%	KKPGDASSLPDAGLSPGSQVDSK	K	S	95.00%	5.29	0.46	0	0	1	0	2	2,321.10	1391	1413	TRUE	
SNU216_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	7	10	0.06%	4.68%	LPELDPRGSDEENLDSETSASTESLLEER	R	A	95.00%	6.2	0.382	0	0	1	0	2	3,298.45	1985	2013	TRUE	
SNU216_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	7	10	0.06%	4.68%	SPLEHSSPEK	R	E	95.00%	2.33	0.267	0	1	0	0	2	1,190.51	1109	1118	TRUE	
SNU216_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	7	10	0.06%	4.68%	SPLEHSSPEKEAPSPEK	R	T	95.00%	3	0.409	0	2	1	0	2	2,008.83	1109	1125	TRUE	
SNU216_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	7	10	0.06%	4.68%	VQEKPDSPGGSTQIQR	R	Y	95.00%	3.56	0.433	0	1	0	0	2	1,806.84	1284	1299	TRUE	
SNU216_PC1_03	Isoform Long of Myosin-9B	IPI00306933,IPI00336047	229,305.10	100.00%	6	7	10	0.06%	4.68%	VSPPAPGSAPETPEDK	R	S	95.00%	2.62	0.445	0	3	0	0	2	1,738.70	1260	1275	TRUE	
SNU216_PC1_03	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	2	2	0.01%	1.66%	KVSVSESNVLLDEEVLTDPK	R	I	95.00%	3.09	0.347	0	0	1	0	2	2,281.12	2574	2593	TRUE	
SNU216_PC1_03	Isoform 2 of Neurofibromin	IPI00299512,IPI00304235	317,037.80	100.00%	2	2	2	0.01%	1.66%	SLLLTDISMENVPMDTYPIHHGDPSYR	K	T	95.00%	5.13	0.471	0	0	1	0	2	3,181.44	2439	2465	TRUE	
SNU216_PC1_03	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.23%	EEPVSSGPEEAVGK	K	S	95.00%	2.98	0.464	0	1	0	0	2	1,494.64	565	578	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	nucleolar protein 5A	IPI00719818	66,052.00	99.80%	3	3	3	0.02%	6.23%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	4.34	0	0	2	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	4	4	0.02%	4.66%	EALRVSEPKAPK	R	A	94.30%	2.05	0.21	0	0	1	0	2	1,404.72	750	761	TRUE	
SNU216_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	4	4	0.02%	4.66%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	5.79	0.472	0	0	1	0	2	3,369.45	35	69	TRUE	
SNU216_PC1_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	4	4	0.02%	4.66%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	7.16	0.523	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	AQGQESDSSETSVR	K	G	95.00%	2.41	0.389	0	1	0	0	2	1,560.62	1051	1064	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	GPGEPDSPTPLHPPTPPILSTDR	K	S	95.00%	3.38	0.334	0	0	1	0	2	2,458.17	1831	1853	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	NDRDQHTDSTQSANSSPDEDTEVK	R	T	95.00%	4.83	0.16	0	0	1	0	2	2,836.06	2377	2400	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	QAAKPPDLNPETEESIPSRSSPEGPDPPVLTE	R	Q	95.00%	3.79	0.194	0	0	0	1	2	3,778.81	1665	1699	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	SASPSVPGPTKPKPK	R	T	95.00%	3.61	0.397	0	1	1	0	2	1,557.80	3525	3539	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	SDTPEVHPPLPISQSPENESNDRR	R	S	95.00%	2.82	0.179	0	0	0	1	2	2,781.25	504	527	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	SEPRSPSHSMR	R	T	93.30%	2.06	0.262	0	0	1	0	2	1,350.56	746	756	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	SREDSPELNPPPGIEDNR	R	Q	95.00%	3.05	0.378	0	1	0	0	2	2,101.92	1854	1871	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	SSIAGSEDAEPLAPPIKPIKPVTR	K	N	95.00%	2.94	0.282	0	0	1	0	2	2,553.33	1114	1137	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger protein HRX	IPI00009286	431,750.30	100.00%	10	11	11	0.07%	5.11%	TIAHSPTSFTESSSK	R	E	95.00%	3.51	0.201	0	1	0	0	2	1,659.73	2094	2108	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	99.80%	2	2	2	0.01%	11.10%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.04	0.201	0	0	1	0	2	2,635.20	31	53	TRUE	
SNU216_PC1_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	99.80%	2	2	2	0.01%	11.10%	LGGLRPESPESLTSVSR	R	T	95.00%	3.02	0.228	0	0	1	0	2	1,864.92	11	27	TRUE	
SNU216_PC1_03	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	3	3	4	0.02%	2.86%	AGSSPAQGAQNEPPR	K	L	95.00%	2.99	0.566	0	2	0	0	2	1,546.66	556	570	TRUE	
SNU216_PC1_03	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	3	3	4	0.02%	2.86%	GNASPGAATHDSLSDYGPQDSRPTPMR	R	R	84.30%	2.95	0.174	0	0	1	0	2	2,865.23	963	989	TRUE	
SNU216_PC1_03	Isoform 1 of Transcription factor 20	IPI00159322,IPI00220381	209,651.90	100.00%	3	3	4	0.02%	2.86%	QLSGQSTSSDTTYK	R	G	95.00%	3.27	0.535	0	1	0	0	2	1,582.66	536	549	TRUE	
SNU216_PC1_03	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	4	0.02%	2.33%	LGSPVDNLEDMDRDDLTDDSVFTR	R	S	95.00%	2.99	0.213	0	0	1	0	2	2,805.19	171	194	TRUE	
SNU216_PC1_03	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	4	0.02%	2.33%	RSSPPPPPSGSSSR	R	T	95.00%	2.25	0.453	0	0	1	0	2	1,475.66	38	51	TRUE	
SNU216_PC1_03	251 kDa protein	IPI00177743	251,116.00	100.00%	3	4	4	0.02%	2.33%	TKSPKPAESPQSATK	R	Q	95.00%	2.99	0.282	0	1	1	0	2	1,636.79	1035	1049	TRUE	
SNU216_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	3	3	3	0.02%	5.05%	NLNIINTHAYNQPEDLVYSQPEMR	R	E	95.00%	3.85	0.307	0	0	1	0	2	2,939.34	468	491	TRUE	
SNU216_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	3	3	3	0.02%	5.05%	RHSLEVMNSMVR	K	G	95.00%	3.17	0.234	0	0	1	0	2	1,538.70	640	651	TRUE	
SNU216_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00018914	135,239.40	100.00%	3	3	3	0.02%	5.05%	TDPPAVNGASLGPSISEPDLTSVK	R	E	95.00%	2.89	0.258	0	0	1	0	2	2,432.16	794	817	TRUE	
SNU216_PC1_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	99.30%	2	2	2	0.01%	3.47%	HAQRSPEASQTDSPVESPR	R	L	85.50%	3.09	0.131	0	0	1	0	2	2,238.92	348	366	TRUE	
SNU216_PC1_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	99.30%	2	2	2	0.01%	3.47%	SSEPVQADESQSPR	R	D	95.00%	2.76	0.355	0	1	0	0	2	1,596.65	878	891	TRUE	
SNU216_PC1_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	99.80%	1	1	1	0.01%	1.49%	KRSEGFSMDR	R	K	95.00%	1.93	0.278	0	0	1	0	2	1,292.55	452	461	TRUE	
SNU216_PC1_03	Akt substrate AS250	IPI00719759	210,746.50	99.80%	2	2	4	0.02%	1.07%	RSSSPAELDLKDDLQQTQGK	R	C	95.00%	4.46	0.508	0	0	3	0	2	2,296.08	818	837	TRUE	
SNU216_PC1_03	Akt substrate AS250	IPI00719759	210,746.50	99.80%	2	2	4	0.02%	1.07%	SSSPAELDLKDDLQQTQGK	R	C	95.00%	4.65	0.33	0	0	1	0	2	2,139.98	819	837	TRUE	
SNU216_PC1_03	Solute carrier family 23 member 2	IPI00295774,IPI00552917	70,340.40	99.60%	2	2	2	0.01%	5.54%	SLDGMESYNLPFGMNIIKK	K	Y	92.90%	3.85	0.113	0	0	0	1	2	2,269.03	594	612	TRUE	
SNU216_PC1_03	Solute carrier family 23 member 2	IPI00295774,IPI00552917	70,340.40	99.60%	2	2	2	0.01%	5.54%	SSLAETLDSTGSLDPQR	K	S	95.00%	2.91	0.164	0	1	0	0	2	1,856.83	70	86	TRUE	
SNU216_PC1_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	HEHPPNPPVSPGK	R	T	95.00%	2.97	0.342	0	0	1	0	2	1,472.67	664	676	TRUE	
SNU216_PC1_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	MESSFGSPSKQESSESLPK	K	E	95.00%	3.82	0.359	0	0	1	0	2	2,121.90	471	489	TRUE	
SNU216_PC1_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	RHEHPPNPPVSPGK	K	T	95.00%	3.07	0.281	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216_PC1_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	4	4	4	0.02%	3.54%	SKSEDMDNVQSK	R	R	95.00%	3.12	0.354	0	1	0	0	2	1,447.58	557	568	TRUE	
SNU216_PC1_03	Huntingtin	IPI00002335	347,859.30	99.80%	2	3	3	0.02%	0.54%	EKEPGEQASVPLSPK	K	K	95.00%	3.98	0.505	0	1	1	0	2	1,675.79	1189	1203	TRUE	
SNU216_PC1_03	Huntingtin	IPI00002335	347,859.30	99.80%	2	3	3	0.02%	0.54%	GKEKEPGEQASVPLSPK	K	K	95.00%	4.43	0.455	0	0	1	0	2	1,860.91	1187	1203	TRUE	
SNU216_PC1_03	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	RKTPEASAIGLHQDPELGDAALR	R	S	95.00%	5.28	0.349	0	0	0	1	2	2,525.25	729	751	TRUE	
SNU216_PC1_03	Isoform A of Myotubularin-related protein 3	IPI00171273,IPI00171274,IP	130,560.20	99.80%	2	2	2	0.01%	4.10%	SLELSSLAGPGEDPLSADSLGKPTR	R	V	95.00%	4.57	0.493	0	0	1	0	2	2,577.24	647	671	TRUE	
SNU216_PC1_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	4.23	0.395	0	0	1	0	2	3,490.40	206	235	TRUE	
SNU216_PC1_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	GTDTQTPAVLSPSK	K	T	95.00%	2.66	0.384	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216_PC1_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	GTDTQTPAVLSPSKTQATLKPK	K	D	95.00%	3.49	0.208	0	0	1	0	2	2,349.21	756	777	TRUE	
SNU216_PC1_03	NOL1 protein	IPI00654555	92,976.00	100.00%	4	4	4	0.02%	7.68%	TNKSPEAKPLPGK	K	L	95.00%	3.5	0.395	0	0	1	0	2	1,446.74	64	76	TRUE	
SNU216_PC1_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	6	0.04%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.36	0.311	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC1_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	6	0.04%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.25	0.595	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC1_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	6	0.04%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	7.3	0.571	0	0	1	2	2	3,735.89	46	80	TRUE	
SNU216_PC1_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	5	5	0.03%	4.15%	ALSSGGSITSPPLSPALPK	R	Y	93.50%	3.34	0.0575	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216_PC1_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	5	5	0.03%	4.15%	PGTPSDHQSQEASQFER	R	K	95.00%	3.92	0.541	0	1	1	0	2	1,980.81	380	396	TRUE	
SNU216_PC1_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	5	5	0.03%	4.15%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	90.40%	6.77	0.0045	0	0	1	1	2	3,783.64	362	396	TRUE	
SNU216_PC1_03	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	3	4	4	0.02%	2.10%	SFLSEPSSPGR	R	T	95.00%	2.66	0.518	0	1	0	0	2	1,243.54	1572	1582	TRUE	
SNU216_PC1_03	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	3	4	4	0.02%	2.10%	VISHDRDSPPPPPPPPPPQPQPSLK	R	R	95.00%	6.7	0.433	0	0	1	1	2	2,854.43	131	156	TRUE	
SNU216_PC1_03	hypothetical protein LOC25962 isoform 1	IPI00036742	202,029.90	100.00%	3	4	4	0.02%	2.10%	VISHDRDSPPPPPPPPPPQPQPSLKR	R	N	95.00%	4.7	0.484	0	0	0	1	2	3,010.53	131	157	TRUE	
SNU216_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.31	0.512	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.57	0.355	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	2.82	0.276	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	SPGAPGPLTLK	R	E	95.00%	2.04	0.432	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216_PC1_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	6	0.04%	12.80%	VSSIDLEIDSLSSLLDDMTK	K	N	95.00%	3.96	0.467	0	1	0	0	2	2,261.05	151	170	TRUE	
SNU216_PC1_03	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	3	3	0.02%	2.30%	GTLSDSEIETNSATSTIFGK	R	A	95.00%	4.08	0.0203	0	1	0	0	2	2,137.95	1198	1217	TRUE	
SNU216_PC1_03	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	3	3	0.02%	2.30%	KRSPTESVNTPVGK	R	D	95.00%	3.57	0.477	0	0	1	0	2	1,579.78	1037	1050	TRUE	
SNU216_PC1_03	MAP-kinase activating death domain-containing p	IPI00103536,IPI00107838,IP	176,589.50	100.00%	3	3	3	0.02%	2.30%	SPTESVNTPVGK	R	D	95.00%	2.41	0.312	0	1	0	0	2	1,295.59	1039	1050	TRUE	
SNU216_PC1_03	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	4	4	0.02%	4.63%	EAALPPVSPLK	R	A	95.00%	2.5	0.248	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216_PC1_03	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	4	4	0.02%	4.63%	EAALPPVSPLKAALSEEELEKK	R	S	95.00%	2.59	0.305	0	0	1	0	2	2,429.26	1225	1246	TRUE	
SNU216_PC1_03	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	4	4	0.02%	4.63%	ETGEPYRLSPEPTPLAEPILEVEVTLSK	R	P	95.00%	4.25	0.435	0	0	1	0	2	3,174.59	306	333	TRUE	
SNU216_PC1_03	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	4	4	4	0.02%	4.63%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	3.72	0.368	0	0	0	1	2	2,623.30	1073	1096	TRUE	
SNU216_PC1_03	Isoform 1 of Golgin subfamily A member 4	IPI00013272,IPI00220521,IP	255,743.70	100.00%	1	1	1	0.01%	0.85%	EENPESDGEPVVEDGTSVK	K	T	95.00%	4.07	0.417	0	1	0	0	2	2,096.85	261	279	TRUE	
SNU216_PC1_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	3.92%	RDSLTGSSDLYK	R	R	95.00%	3.45	0.398	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216_PC1_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	3.92%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	3.63	0.367	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216_PC1_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	3.92%	SMDELNHDFQALALEGR	R	A	95.00%	2.56	0.318	0	0	1	0	2	2,025.87	124	140	TRUE	
SNU216_PC1_03	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	3	4	0.02%	8.16%	FAFSPLSEEEEEEDEQKEPMLK	R	E	95.00%	2.74	0.442	0	1	0	0	2	2,592.11	478	498	TRUE	
SNU216_PC1_03	CDNA PSEC0094 fis, clone NT2RP2001499, weakly	IPI00171422	64,414.80	99.80%	2	3	4	0.02%	8.16%	WVEENVPSSVTDVALPALLDSDEER	K	M	95.00%	5.79	0.47	0	1	2	0	2	2,850.31	529	553	TRUE	
SNU216_PC1_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	2.83	0.5	0	2	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC1_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.93	0.489	0	1	0	0	2	1,590.71	378	391	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	4	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.16	0.436	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC1_03	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	HPEPVPEEGSEDELPPQVHKV	R	-	95.00%	3.88	0.244	0	0	2	0	2	2,429.10	819	839	TRUE	
SNU216_PC1_03	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	LEASYSDSPPGEEDLLVHVAEGSK	R	S	95.00%	2.46	0.229	0	0	1	0	2	2,609.17	11	34	TRUE	
SNU216_PC1_03	Isoform 1 of Autophagy-related protein 9A	IPI00383396	94,467.50	100.00%	3	3	4	0.02%	7.63%	RESDESGESAPDEGGEGAR	R	A	95.00%	4.08	0.515	0	1	0	0	2	2,014.76	733	751	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	EHSPDSDAYNSGDDKNEK	R	H	95.00%	3.12	0.406	0	0	2	0	2	2,167.75	843	860	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	ERTPESEEENVEWETNR	K	D	95.00%	2.99	0.526	0	1	0	0	2	2,293.86	132	148	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	EVSPEVVR	K	S	80.80%	1.55	0.251	0	1	0	0	2	994.4605	196	203	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	FVHGPSPR	R	G	92.20%	1.67	0.243	0	1	0	0	2	976.4401	59	66	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	GDSDISDEEAAQQSK	K	K	95.00%	3.38	0.418	0	1	0	0	2	1,659.64	1012	1026	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	GNIETTSEDGQVFSPK	R	K	95.00%	3.72	0.418	0	2	0	0	2	1,788.77	980	995	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	GPRTPSPPPPIPEDIALGK	K	K	95.00%	4.08	0.457	0	0	2	0	2	2,099.00	260	278	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	GPRTPSPPPPIPEDIALGKK	K	Y	95.00%	3.44	0.14	0	0	1	0	2	2,227.09	260	279	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	HHSSSSQSGSSIQRHSPSPR	R	R	95.00%	2.81	0.234	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	KEDTAFSDWSDEDVPDR	K	T	95.00%	3.35	0.424	0	1	0	0	2	2,091.82	1059	1075	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	KGPRTPSPPPPIPEDIALGK	K	K	95.00%	4.6	0.289	0	0	1	0	2	2,227.09	259	278	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	KTSAVSSPLLDQQR	R	N	95.00%	2.53	0.258	0	2	0	0	2	1,609.79	236	249	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	SASPYPSHSLSSPQR	R	K	95.00%	2.47	0.275	0	2	0	0	2	1,840.67	370	384	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	SKGDSDISDEEAAQQSK	K	K	95.00%	4.14	0.4	0	3	0	0	2	1,874.77	1010	1026	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	SKLSPSPSLRK	R	S	95.00%	2.27	0.239	0	0	1	0	2	1,279.68	204	214	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	SLSPSHLTEDR	R	Q	95.00%	2.14	0.343	0	2	1	0	2	1,321.58	875	885	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	STSPAGQHHSPISSR	R	H	95.00%	2.52	0.238	0	0	1	0	2	1,628.72	316	330	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	TPSPPPPIPEDIALGK	R	K	95.00%	3.1	0.213	0	1	1	0	2	1,788.82	263	278	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	TPSPPPPIPEDIALGKK	R	Y	95.00%	4.34	0.403	0	1	1	0	2	1,916.92	263	279	TRUE	
SNU216_PC1_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	100.00%	20	23	31	0.19%	13.30%	YRNEGSPSPRQSPK	R	R	95.00%	1.65	0.324	0	1	0	0	2	1,842.70	826	839	TRUE	
SNU216_PC1_03	Isoform 1 of Mitogen-activated protein kinase kir	IPI00006752	142,101.10	99.80%	1	2	2	0.01%	1.45%	RDSPLQGSGQQNSQAGQR	R	N	95.00%	5.25	0.617	0	1	1	0	2	1,993.88	637	654	TRUE	
SNU216_PC1_03	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	1	1	1	0.01%	1.78%	TSSAFVGKTPEASPEPK	K	D	95.00%	3.23	0.452	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216_PC1_03	Isoform Short of Adenomatous polyposis coli pro	IPI00215877	300,441.80	99.80%	2	2	2	0.01%	1.28%	DIQRPDSEHGLSPDSENFDWK	K	A	91.70%	3.05	0.142	0	0	1	0	2	2,552.07	1981	2001	TRUE	
SNU216_PC1_03	Isoform Short of Adenomatous polyposis coli pro	IPI00215877	300,441.80	99.80%	2	2	2	0.01%	1.28%	SKTPPPPPQTAQTK	R	R	95.00%	2.25	0.257	0	1	0	0	2	1,557.77	1335	1348	TRUE	
SNU216_PC1_03	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	4	5	5	0.03%	3.00%	IIPELVGSPTQSTSSR	K	T	88.20%	2.51	0.146	0	1	0	0	2	1,751.86	1468	1483	TRUE	
SNU216_PC1_03	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	4	5	5	0.03%	3.00%	LKAESISEEADSEPGR	K	S	95.00%	2.9	0.336	0	1	1	0	2	1,877.76	1782	1797	TRUE	
SNU216_PC1_03	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	4	5	5	0.03%	3.00%	RLSLDIQSPPNIGLR	R	R	95.00%	3.1	0.446	0	0	1	0	2	1,758.93	694	708	TRUE	
SNU216_PC1_03	Isoform B of Bromodomain and WD-repeat doma	IPI00250716,IPI00289944,IP	248,940.80	100.00%	4	5	5	0.03%	3.00%	VLSQALNGDSDSEDMLNSEHK	K	H	85.70%	2.47	0.166	0	1	0	0	2	2,448.96	2009	2029	TRUE	
SNU216_PC1_03	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	1	1	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	5.03	0.467	0	0	1	0	2	3,106.31	797	824	TRUE	
SNU216_PC1_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.4	0.272	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC1_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.93	0.497	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC1_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.35	0.567	0	1	0	0	2	1,899.91	474	489	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	ASGSENEGDYNPGRK	K	T	95.00%	2.61	0.231	0	1	0	0	2	1,660.66	1549	1563	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	FDSNEEDSASVFSPSFGLK	K	Q	95.00%	4.05	0.567	0	1	1	0	2	2,142.89	1464	1482	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	KASGSENEGDYNPGR	R	K	95.00%	2.54	0.367	0	1	0	0	2	1,740.63	1548	1562	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	KASGSENEGDYNPGRK	R	T	95.00%	3.66	0.421	0	2	2	0	2	1,868.72	1548	1563	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.77	0.482	0	1	3	1	2	3,017.35	1574	1599	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	KVVEAVNSDSDSEFGIPK	K	K	95.00%	2.98	0.287	0	1	0	0	2	2,080.89	1515	1532	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	4.25	0.249	0	1	2	0	2	2,875.18	1457	1482	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	SQDFGNLFSFPSYSQKSEDDSAK	K	F	87.90%	4.95	0.0406	0	0	1	0	2	2,664.11	1441	1463	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	TSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.34	0.38	0	0	1	0	2	2,889.25	1575	1599	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	VKASPITNDGEDEFVPSDGLDKDEYTFSPGK	K	S	95.00%	6.95	0.566	0	0	2	1	2	3,437.53	1397	1427	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	VVEAVNSDSDSEFGIPK	K	K	95.00%	2.66	0.304	0	1	0	0	2	1,872.83	1516	1532	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	VVEAVNSDSDSEFGIPKK	K	T	95.00%	3.11	0.402	0	1	0	0	2	2,080.89	1516	1533	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	YTFDFSEEEDDADDDDDDNNDLEELK	K	V	95.00%	4.24	0.392	0	0	1	0	2	3,308.16	1370	1396	TRUE	
SNU216_PC1_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	100.00%	14	20	26	0.16%	9.93%	YTFDFSEEEDDADDDDDDNNDLEELKVK	K	A	95.00%	7.56	0.59	0	0	1	0	2	3,535.32	1370	1398	TRUE	
SNU216_PC1_03	Putative chloride channel protein 7	IPI00020524,IPI00745767	89,390.00	99.80%	1	2	2	0.01%	3.20%	VGHMSSVELDDELLDPDMDPPHPFPK	R	E	95.00%	5.93	0.485	0	0	1	1	2	2,997.31	56	81	TRUE	
SNU216_PC1_03	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	2	3	3	0.02%	2.94%	ATMAQNENVVVQPVVAENIPVIPLSDSPPP	R	W	95.00%	3.41	0.429	0	0	1	1	2	3,448.72	587	618	TRUE	
SNU216_PC1_03	NK-tumor recognition protein	IPI00295022	165,678.80	100.00%	2	3	3	0.02%	2.94%	VEETSPLGNAR	K	L	95.00%	1.91	0.266	0	1	0	0	2	1,252.56	1142	1152	TRUE	
SNU216_PC1_03	Breakpoint cluster region protein	IPI00004497	142,809.60	99.90%	3	4	4	0.02%	4.41%	ASASRPQPAPADGADPPPAEEPEARPDGEC	R	A	95.00%	6.36	0.389	0	0	1	1	2	3,388.51	92	125	TRUE	
SNU216_PC1_03	Breakpoint cluster region protein	IPI00004497	142,809.60	99.90%	3	4	4	0.02%	4.41%	HQDGLPYIDDSPSSSPHLSSK	R	G	83.90%	4.33	0.0648	0	0	1	0	2	2,347.02	449	469	TRUE	
SNU216_PC1_03	Breakpoint cluster region protein	IPI00004497	142,809.60	99.90%	3	4	4	0.02%	4.41%	RHQDGLPYIDDSPSSSPHLSSK	R	G	91.20%	3.04	0.152	0	0	0	1	2	2,503.13	448	469	TRUE	
SNU216_PC1_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	2	0.01%	2.00%	AKPAMPQDSVPSPR	K	S	95.00%	2.77	0.377	0	1	0	0	2	1,560.72	470	483	TRUE	
SNU216_PC1_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	2	2	2	0.01%	2.00%	TASFSESR	R	A	93.70%	1.67	0.25	0	1	0	0	2	964.3771	453	460	TRUE	
SNU216_PC1_03	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	2	2	0.01%	3.73%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	4.51	0.372	0	0	0	1	2	2,851.43	615	639	TRUE	
SNU216_PC1_03	hypothetical protein LOC91748	IPI00302594	114,989.30	99.80%	2	2	2	0.01%	3.73%	RASQEANLLTLAQK	R	A	95.00%	3.62	0.288	0	0	1	0	2	1,622.83	459	472	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	4	4	0.02%	3.73%	LSVSSNDTQESGNSSGPSPGAK	R	F	95.00%	4.48	0.0083	0	1	1	0	2	2,185.92	393	414	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	4	4	0.02%	3.73%	SVDIHDSIQPR	K	S	95.00%	1.92	0.245	0	1	0	0	2	1,346.61	1569	1579	TRUE	
SNU216_PC1_03	Brefeldin A-inhibited guanine nucleotide-exchang	IPI00002188	208,713.30	100.00%	3	4	4	0.02%	3.73%	TTIPHALLTWRPNSGETAPPPPSPVSEKPLDT	K	S	89.10%	3.4	0.119	0	0	0	1	2	3,943.00	1533	1568	TRUE	
SNU216_PC1_03	Histone-lysine N-methyltransferase, H3 lysine-4 s	IPI00179016	186,147.10	99.80%	1	1	2	0.01%	1.40%	SGSPAPETTNESVPFAQHSSLDSR	R	I	95.00%	3.41	0.338	0	0	2	0	2	2,581.12	468	491	TRUE	
SNU216_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	7	14	0.09%	3.42%	EEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	4.47	0.579	0	1	1	0	2	2,439.00	15	38	TRUE	
SNU216_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	7	14	0.09%	3.42%	REEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	5.51	0.49	0	0	3	0	2	2,595.10	14	38	TRUE	
SNU216_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	7	14	0.09%	3.42%	RREEGPPPPSPDGASSDAEPEPPSGR	R	T	95.00%	3.89	0.466	0	0	4	2	2	2,831.17	13	38	TRUE	
SNU216_PC1_03	Isoform 1 of Structural maintenance of chromoso	IPI00411559	147,187.90	100.00%	4	7	14	0.09%	3.42%	TESPATAAETASEELDNR	R	S	95.00%	4.21	0.518	0	2	1	0	2	1,971.82	39	56	TRUE	
SNU216_PC1_03	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	1	1	1	0.01%	1.45%	HLSPYATLTVGDSSHK	K	T	95.00%	4.47	0.405	0	0	1	0	2	1,792.83	818	833	TRUE	
SNU216_PC1_03	Isoform 1 of Homeobox protein cut-like 1	IPI00026673,IPI00419894,IP	161,737.50	99.80%	1	1	1	0.01%	0.73%	AYQQKPYPSPK	R	T	95.00%	2.19	0.315	0	1	0	0	2	1,386.65	1240	1250	TRUE	
SNU216_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	9	15	0.09%	2.35%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.92	0.506	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	9	15	0.09%	2.35%	AQLEPVASPAK	K	K	95.00%	2.2	0.273	1	0	0	0	2	1,190.58	1428	1438	TRUE	IPI00398002,IPI00398779
SNU216_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	9	15	0.09%	2.35%	ARSDEGQLSPATR	R	G	95.00%	3.33	0.408	0	0	1	0	2	1,467.66	712	724	TRUE	IPI00398002,IPI00398779

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	9	15	0.09%	2.35%	GYYSPYSVSGSGSTAGSR	K	T	95.00%	3.54	0.057	0	3	0	0	2	1,862.76	4610	4627	TRUE	IPI00398002,IPI00398779
SNU216_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	9	15	0.09%	2.35%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	5.52	0.134	0	1	3	0	2	2,853.15	4640	4666	TRUE	IPI00398002,IPI00398779
SNU216_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	9	15	0.09%	2.35%	SDEGQLSPATR	R	G	95.00%	2.23	0.271	0	1	0	0	2	1,240.52	714	724	TRUE	IPI00398002,IPI00398779
SNU216_PC1_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	7	9	15	0.09%	2.35%	SSSVGSSSSYPISPAVSR	R	T	95.00%	3.15	0.326	0	3	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	AAESLTAIPEPASPQLLETPIHASQIQK	R	V	95.00%	4.77	0.356	0	0	1	0	2	3,020.53	1763	1790	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	AHSEKDQPPFGDSDDSVEADK	R	S	95.00%	4.09	0.454	0	0	1	0	2	2,353.95	483	503	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	AHSEKDQPPFGDSDDSVEADKSSPGIHLER	R	S	95.00%	5.15	0.266	0	0	0	1	2	3,490.39	483	512	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	3.58	0.289	0	0	1	0	2	2,433.10	784	805	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	AQPFGFIDSDTDAEEER	R	I	95.00%	3.17	0.407	0	1	0	0	2	2,006.80	321	337	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	AQPFGFIDSDTDAEEERIPATPVVIPMKK	R	R	95.00%	3.41	0.248	0	0	0	1	2	3,281.58	321	349	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	DSDTDVEEEELPVENR	R	E	95.00%	3.9	0.549	0	1	0	0	2	1,955.78	452	467	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	GQASSPTPEPGVGAGDLPGPTSAPVPSGSQ	K	G	95.00%	4.68	0.425	0	0	1	0	2	3,139.43	960	993	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	LLLAEDSEEEVDFLSER	R	R	95.00%	3.34	0.395	0	1	0	0	2	2,073.93	162	178	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	SQASMVINSDTDDEEEVSAALTLAHLK	K	E	84.00%	5.09	0.0324	0	0	1	0	2	2,954.33	394	420	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	SSVKTPEPVVPTAPELQPSTSTDQPVTSEPTS	R	G	94.50%	6.05	0.0282	0	0	1	0	2	3,857.87	1153	1188	TRUE	
SNU216_PC1_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	12	12	12	0.07%	12.50%	SSVKTPESIVPIAPELQPSTSR	R	N	95.00%	2.91	0.412	0	0	1	0	2	2,403.22	1563	1584	TRUE	
SNU216_PC1_03	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	HLESSDEDEKMDEESAQIEEVLQR	K	G	95.00%	4.49	0.508	0	0	1	0	2	2,926.23	1792	1815	TRUE	
SNU216_PC1_03	Utrophin	IPI00009329	394,494.50	100.00%	2	2	2	0.01%	1.11%	SSLLPTDYLVEINK	R	I	95.00%	2.17	0.278	0	1	0	0	2	1,671.82	1865	1878	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	3	3	3	0.02%	0.93%	RHDEDEDDSLKDR	R	E	95.00%	3.06	0.327	0	0	1	0	2	1,709.68	891	903	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	3	3	3	0.02%	0.93%	RRSNTLDIMDGR	R	I	93.80%	2.34	0.178	0	0	1	0	2	1,513.69	1515	1526	TRUE	
SNU216_PC1_03	PREDICTED: hypothetical protein LOC23045 isofor	IPI00159652,IPI00739607	300,632.50	100.00%	3	3	3	0.02%	0.93%	SNTLDIMDGR	R	I	95.00%	2.74	0.422	0	1	0	0	2	1,201.49	1517	1526	TRUE	
SNU216_PC1_03	Phosphatidate cytidylyltransferase 1	IPI00024234	53,306.50	99.80%	1	2	2	0.01%	5.21%	EGEAAGGDHETESTSDKETDIDDR	R	Y	95.00%	3.14	0.324	0	1	0	1	2	2,644.02	23	46	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	AESSSDEEEESEKQK	K	Q	95.00%	1.28	0.409	0	1	0	0	2	1,951.61	877	891	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	AQSYDIQAWK	R	K	95.00%	2.11	0.328	0	1	0	0	2	1,289.56	1313	1322	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	AQSYDIQAWKK	R	Q	95.00%	2.51	0.324	0	1	0	0	2	1,417.65	1313	1323	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	KVLSDSEDEEK	K	D	95.00%	2.15	0.272	0	1	0	0	2	1,438.54	1278	1288	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	KVLSDSEDEEKDADVPGTSTR	K	K	95.00%	4.11	0.377	0	1	0	0	2	2,438.00	1278	1298	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	KVNEEKDGPISPK	K	K	95.00%	3.5	0.328	0	1	0	0	2	1,520.74	901	913	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	RTAFYNEDDSEEEQR	R	Q	95.00%	3.64	0.463	0	1	1	0	2	1,968.76	1774	1788	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	TAFYNEDDSEEEQR	R	Q	95.00%	3.39	0.563	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.82	0.572	0	1	0	0	2	2,309.91	1279	1298	TRUE	
SNU216_PC1_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	100.00%	10	11	11	0.07%	4.12%	VNEEKDGPISPK	K	K	95.00%	2.67	0.208	0	1	0	0	2	1,392.64	902	913	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	ANTSGDFEKDDDAYK	K	T	95.00%	2.71	0.317	0	1	0	0	2	1,755.67	1990	2004	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	AVVSPPKFVFGSESVK	K	S	95.00%	2.33	0.272	0	1	0	0	2	1,757.89	2507	2522	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	EDALDDSVSSSSVHASPLASSPVRK	R	N	95.00%	5.06	0.375	0	0	1	1	2	2,621.21	2231	2255	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	FESPATGILSPR	R	G	95.00%	2.56	0.286	0	1	0	0	2	1,354.64	946	957	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	KKPEDSPSDDDVLIVYELTPTAEQK	K	A	95.00%	4.82	0.369	0	0	1	0	2	2,897.37	2621	2645	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	KQSLPATSIPTPASFK	R	F	95.00%	3.03	0.262	0	1	1	0	2	1,752.89	1507	1522	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	NADSEIKHSTPSPTR	R	Y	95.00%	1.76	0.326	0	1	0	0	2	1,799.74	770	784	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	NHETDGGSAHGDDDDDDGPHFEPVVPLPDI	K	I	95.00%	3.61	0.273	0	0	0	1	2	3,149.28	1153	1181	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	NHETDGGSAHGDDDDDDGPHFEPVVPLPDI	K	T	95.00%	4.53	0.543	0	0	1	1	2	3,618.57	1153	1185	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	4.28	0.212	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	SALSPSKSPAK	K	L	89.30%	1.97	0.189	0	1	0	0	2	1,152.57	2273	2283	TRUE	
SNU216_PC1_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	12	16	16	0.10%	6.89%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	4.23	0.426	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	3	3	3	0.02%	1.43%	AESGPDLR	R	Y	95.00%	1.93	0.346	0	1	0	0	2	924.3824	20	27	TRUE	
SNU216_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	3	3	3	0.02%	1.43%	SMSFQGIR	R	Q	95.00%	1.91	0.365	0	1	0	0	2	1,005.42	2207	2214	TRUE	
SNU216_PC1_03	Isoform DPI of Desmoplakin	IPI00013933	331,783.20	100.00%	3	3	3	0.02%	1.43%	SSSFSDTLEESSPIAAIFDTENLEK	R	I	95.00%	4.17	0.0036	0	1	0	0	2	2,797.23	2606	2630	TRUE	
SNU216_PC1_03	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	3	6	0.04%	10.20%	ESSETPDQFMTADETR	K	N	95.00%	3.27	0.421	0	1	0	0	2	1,923.73	467	482	TRUE	
SNU216_PC1_03	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	2	3	6	0.04%	10.20%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	5.18	0.329	0	0	2	3	2	2,333.13	446	466	TRUE	
SNU216_PC1_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	5	5	0.03%	3.37%	GDVEGSQSQDEGEGSGESER	K	G	95.00%	3.71	0.556	0	1	1	0	2	2,118.77	1060	1079	TRUE	
SNU216_PC1_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	5	5	0.03%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	95.00%	3.24	0.466	0	1	0	0	2	2,044.93	1080	1099	TRUE	
SNU216_PC1_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	3	5	5	0.03%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.29	0.555	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	4.59	0.101	0	1	1	0	2	2,170.00	580	599	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	3.24	0.437	0	0	1	0	2	1,912.86	582	599	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	GPPQSPVFEGVYNNSR	K	M	95.00%	2.77	0.446	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	LQPSSSPENSLDPFPPR	K	I	95.00%	2.97	0.478	0	1	0	0	2	1,947.89	554	570	TRUE	
SNU216_PC1_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	5	6	6	0.04%	6.14%	QGSGRESPSLASR	R	E	95.00%	2.21	0.313	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216_PC1_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	4	6	0.04%	6.79%	HSTSPSLDSEYNEELNEDDSQSDEKDQDAII	R	K	95.00%	6.44	0.539	0	0	0	1	2	4,265.74	1084	1120	TRUE	
SNU216_PC1_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	4	6	0.04%	6.79%	IIYDSDSESEETLQVK	R	N	95.00%	4.06	0.0967	0	2	0	0	2	1,935.85	65	80	TRUE	
SNU216_PC1_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	4	6	0.04%	6.79%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	3.23	0.402	0	0	2	1	2	2,798.45	152	176	TRUE	
SNU216_PC1_03	Isoform 3 of Receptor-type tyrosine-protein phos	IPI00163420,IPI00304030	89,703.70	99.80%	1	2	2	0.01%	2.00%	VVQEYIDAFSDYANFK	K	-	95.00%	4.47	0.559	0	1	1	0	2	1,988.87	778	793	TRUE	
SNU216_PC1_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.15	0.356	0	1	0	0	2	1,754.80	391	407	TRUE	
SNU216_PC1_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,122.50	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	K	E	95.00%	4.76	0.591	0	0	1	0	2	2,696.24	364	390	TRUE	
SNU216_PC1_03	Isoform 1 of Protein KIAA0690	IPI00101186,IPI00294794	132,711.90	99.80%	1	2	2	0.01%	1.70%	GDSIEEILADSEDEEDNEEEER	K	S	95.00%	5.39	0.529	0	1	1	0	2	2,631.99	970	991	TRUE	
SNU216_PC1_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	2	3	3	0.02%	2.56%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.16	0.583	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216_PC1_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	100.00%	2	3	3	0.02%	2.56%	SGAASMPSSPK	R	Q	95.00%	2.09	0.501	0	1	1	0	2	1,099.45	223	233	TRUE	
SNU216_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	8	8	0.05%	4.41%	DSPSAGGPVGQLEPIPIPAPASPGTRPTLK	R	D	95.00%	5.92	0.0684	0	0	1	0	2	2,987.52	506	535	TRUE	
SNU216_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	8	8	0.05%	4.41%	GSNPLDGRDSPSAGGPVGQLEPIPIPAPASP	R	D	95.00%	4.14	0.515	0	0	0	1	2	3,783.91	498	535	TRUE	
SNU216_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	8	8	0.05%	4.41%	KSLSNPDIASETLTLLSFLR	R	S	95.00%	3.38	0.464	0	0	1	0	2	2,285.18	460	479	TRUE	
SNU216_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	8	8	0.05%	4.41%	MGAQQDDGSDAPPGSPDWAGDVTR	R	G	95.00%	3.77	0.411	0	1	1	0	2	2,509.99	605	628	TRUE	
SNU216_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	8	8	0.05%	4.41%	SLSDPIPQR	R	H	95.00%	2.19	0.32	0	1	0	0	2	1,092.51	733	741	TRUE	
SNU216_PC1_03	Tumor endothelial marker 4	IPI00152007	221,674.00	100.00%	6	8	8	0.05%	4.41%	SLSNPDIASETLTLLSFLR	K	S	95.00%	4.68	0.591	0	1	1	0	2	2,157.08	461	479	TRUE	
SNU216_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	7	7	0.04%	1.03%	AFLAELEQNSPK	K	I	95.00%	3.46	0.468	0	1	0	0	2	1,426.66	2445	2456	TRUE	IPI00432363,IPI00478739,IPI00514468

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	7	7	0.04%	1.03%	MLSSSDAITQEFMDLR	R	T	95.00%	3.92	0.565	0	1	0	0	2	1,923.82	1374	1389	TRUE	
SNU216_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	7	7	0.04%	1.03%	QGSFSEDVISHK	R	G	95.00%	3.1	0.41	0	1	1	0	2	1,413.60	1858	1869	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	7	7	0.04%	1.03%	RQGSFSEDVISHK	K	G	95.00%	2.49	0.207	0	0	1	0	2	1,569.71	1857	1869	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	7	7	0.04%	1.03%	SMDAMSSPTK	K	T	95.00%	2.57	0.461	0	1	0	0	2	1,134.42	2423	2432	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_03	Isoform 2 of Microtubule-actin crosslinking factor	IPI00256861,IPI00513991,IP	620,414.90	100.00%	6	7	7	0.04%	1.03%	SMDAMSSPTKTETVK	K	A	95.00%	3.95	0.0599	0	1	0	0	2	1,692.72	2423	2437	TRUE	IPI00432363,IPI00478739,IPI00514468
SNU216_PC1_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	4	4	0.02%	1.49%	RDSDGVDGFEAEGK	R	K	95.00%	3.89	0.481	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216_PC1_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	4	4	0.02%	1.49%	RDSDGVDGFEAEGKK	R	D	95.00%	3.6	0.379	0	0	1	0	2	1,689.71	1052	1066	TRUE	
SNU216_PC1_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	3	4	4	0.02%	1.49%	RRDSDGVDGFEAEGK	R	K	95.00%	4.29	0.35	0	1	1	0	2	1,717.72	1051	1065	TRUE	
SNU216_PC1_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	4	0.02%	2.81%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	95.00%	4.65	0.0986	0	0	1	0	2	3,103.27	670	695	TRUE	
SNU216_PC1_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	4	0.02%	2.81%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.39	0.523	0	2	1	0	2	2,274.87	677	695	TRUE	
SNU216_PC1_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	5.83%	AAVVTSPPPTTAPHK	R	E	95.00%	2.27	0.319	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC1_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	5.83%	SPGSPVGEGTGSPPK	R	W	95.00%	3.05	0.502	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216_PC1_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	3	3	3	0.02%	5.83%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	2.9	0.254	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC1_03	PREDICTED: RW1 protein isoform 1	IPI00401611	205,143.20	99.80%	2	2	2	0.01%	2.02%	DFDHHDSPALEVFTEQPPSPLPK	K	S	95.00%	4.69	0.387	0	0	1	0	2	2,683.21	1357	1379	TRUE	
SNU216_PC1_03	PREDICTED: RW1 protein isoform 1	IPI00401611	205,143.20	99.80%	2	2	2	0.01%	2.02%	RSSDPWSNSHFPHEN	R	-	95.00%	3.89	0.271	0	0	1	0	2	1,876.74	1869	1883	TRUE	
SNU216_PC1_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	RPESPSEISPIK	K	G	85.80%	2.05	0.171	0	2	0	0	2	1,499.65	262	273	TRUE	
SNU216_PC1_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	137,365.20	100.00%	2	3	4	0.02%	3.03%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	5.12	0.22	0	1	1	0	2	2,653.07	108	131	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	10.20%	LPLVPESPRR	R	M	95.00%	2.38	0.198	0	1	1	0	2	1,243.66	315	324	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	10.20%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	3.07	0.484	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	10.20%	SQDATFSPGSEQAEK	R	S	95.00%	2.68	0.224	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	4	5	5	0.03%	10.20%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.16	0.386	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC1_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	99.80%	2	2	2	0.01%	3.18%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	4.4	0.238	0	0	1	0	2	2,396.04	714	733	TRUE	
SNU216_PC1_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	99.80%	2	2	2	0.01%	3.18%	TLSDPPSPLPHGPPNK	R	G	95.00%	2.53	0.184	0	0	1	0	2	1,733.83	840	855	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	6	0.04%	4.31%	GLLYDSDEEDEERPAR	R	K	95.00%	3.17	0.387	0	0	2	0	2	1,973.81	134	149	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	6	0.04%	4.31%	GNDPLTSSPGR	R	S	95.00%	1.78	0.309	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	6	0.04%	4.31%	RGLLYDSDEEDEERPAR	R	K	95.00%	3.28	0.36	0	0	1	0	2	2,129.91	133	149	TRUE	
SNU216_PC1_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	4	5	6	0.04%	4.31%	RTDALTSSPGR	R	D	95.00%	2.47	0.309	0	1	1	0	2	1,240.57	34	44	TRUE	
SNU216_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	7	0.04%	10.70%	DNQESSDAELSSSEYIK	K	T	95.00%	3.96	0.52	0	1	0	0	2	1,981.79	622	638	TRUE	
SNU216_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	7	0.04%	10.70%	KPGPSGPSESPK	R	A	95.00%	2.32	0.316	0	1	0	0	2	1,247.57	498	509	TRUE	
SNU216_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	7	0.04%	10.70%	KPSGSPDLWKLSPDQR	R	K	95.00%	2.9	0.254	0	0	2	0	2	1,970.88	441	456	TRUE	
SNU216_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	7	0.04%	10.70%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.68	0.478	0	0	2	0	2	2,526.21	280	301	TRUE	
SNU216_PC1_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	5	5	7	0.04%	10.70%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	5.07	0.452	0	0	1	0	2	2,314.11	199	219	TRUE	
SNU216_PC1_03	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.82	0.364	0	0	1	0	2	2,242.10	907	927	TRUE	
SNU216_PC1_03	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	2	2	2	0.01%	5.05%	SGVSSDNEDDDDEEDGNYLHPSLFASK	K	K	95.00%	5.82	0.558	0	0	1	0	2	3,022.17	279	305	TRUE	
SNU216_PC1_03	dispatched B	IPI00304587	152,006.50	99.80%	2	3	4	0.02%	3.50%	ARQDSQGEEEAEPLPASPEAPAHSPK	R	A	95.00%	4.89	0.463	0	0	2	1	2	2,759.17	1248	1272	TRUE	
SNU216_PC1_03	dispatched B	IPI00304587	152,006.50	99.80%	2	3	4	0.02%	3.50%	GGPGDGSPVVLPNSQPDLPDVWLR	R	R	95.00%	4.28	0.259	0	0	1	0	2	2,552.22	1367	1390	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	ANASPQKPLDLK	R	Q	95.00%	2.96	0.347	0	0	1	0	2	1,361.68	953	964	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	3.77	0.388	0	0	1	1	0	2	2,327.88	548	567	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	5.13	0.388	0	0	2	0	2	2,563.19	145	166	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	LLSPRPSLLTPTGDPR	R	A	95.00%	3.03	0.303	0	0	1	0	2	1,799.94	937	952	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	NLAPHHASPDPPAPPASASDPHR	K	E	95.00%	2.98	0.208	0	0	0	1	2	2,419.09	2008	2030	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	QQQLEEEAAKPPEPEKPVSPPPIESK	K	H	95.00%	3.99	0.368	0	0	1	0	2	2,962.45	197	222	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	TDDTSGEDNDEKEAVASK	K	G	95.00%	2.79	0.278	0	1	0	0	2	2,070.74	550	567	TRUE	
SNU216_PC1_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	100.00%	8	9	10	0.06%	5.78%	TSVLGGGEDGIEPVSPPEGMTEPGHSR	K	S	95.00%	2.9	0.26	0	0	1	0	2	2,772.22	2219	2245	TRUE	
SNU216_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	7	0.04%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	85.20%	2.94	0.137	0	0	1	0	2	2,486.00	175	197	TRUE	
SNU216_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	7	0.04%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	2.36	0.281	0	1	0	0	2	2,467.96	153	174	TRUE	
SNU216_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	7	0.04%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.95	0.439	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	7	0.04%	11.00%	SGDETPGSEVPGDK	R	A	95.00%	2.44	0.439	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	7	0.04%	11.00%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	3.88	0.509	0	0	1	0	2	2,857.12	161	187	TRUE	
SNU216_PC1_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	6	7	7	0.04%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6.55	0.538	0	0	1	1	2	4,198.92	226	261	TRUE	
SNU216_PC1_03	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.39%	AQSPVSGPNVAHLTDGATLNDR	R	S	95.00%	4.53	0.46	0	0	1	0	2	2,300.07	1045	1066	TRUE	
SNU216_PC1_03	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.39%	EVQDKDYPLTPPPSPTVDEPK	K	I	95.00%	3.69	0.14	0	0	1	0	2	2,512.09	1757	1777	TRUE	
SNU216_PC1_03	vacuolar protein sorting 13D isoform 1	IPI00479404,IPI00514073	489,516.90	100.00%	3	3	3	0.02%	1.39%	SLPSHMEEAPNVFQLYQR	R	P	95.00%	3.81	0.295	0	0	1	0	2	2,226.01	1729	1746	TRUE	
SNU216_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	3	3	3	0.02%	4.28%	GTPKPPGPPAQPPGPPNASSNPDLR	R	R	95.00%	3.06	0.213	0	0	1	0	2	2,526.21	714	738	TRUE	
SNU216_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	3	3	3	0.02%	4.28%	LDSSPVLSPGNK	K	A	95.00%	2.98	0.458	0	1	0	0	2	1,293.61	775	786	TRUE	
SNU216_PC1_03	Isoform 3 of Misshapen-like kinase 1	IPI00166680	149,810.70	100.00%	3	3	3	0.02%	4.28%	SDSVLPASHGHLPQAGSLER	R	N	95.00%	3.28	0.332	0	0	1	0	2	2,138.00	747	766	TRUE	
SNU216_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	10	13	0.08%	4.63%	ADHRSSPNVANQPPSPGGK	R	S	95.00%	3.25	0.361	0	1	1	0	2	2,155.84	1167	1185	TRUE	
SNU216_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	10	13	0.08%	4.63%	QGAIYHGLATLLNQPSPMMQR	K	I	95.00%	4.41	0.335	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	10	13	0.08%	4.63%	SKSQDADSPGSSGAPENLTFK	R	E	95.00%	3.5	0.15	0	0	1	0	2	2,202.96	1782	1802	TRUE	
SNU216_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	10	13	0.08%	4.63%	SQDADSPGSSGAPENLTFK	K	E	95.00%	2.81	0.287	0	2	1	0	2	1,987.83	1784	1802	TRUE	
SNU216_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	10	13	0.08%	4.63%	SSPNVANQPPSPGGK	R	S	95.00%	3.38	0.467	0	3	0	0	2	1,596.65	1171	1185	TRUE	
SNU216_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	10	13	0.08%	4.63%	TQVLSPDSLFTAK	K	F	95.00%	2.54	0.372	0	1	0	0	2	1,486.72	1727	1739	TRUE	
SNU216_PC1_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	7	10	13	0.08%	4.63%	TSSVVTLEVAK	R	Q	95.00%	2.74	0.335	1	1	0	0	2	1,213.61	1080	1090	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	ADEGKKETSPESSLIQDEIAVK	K	L	95.00%	4.33	0.351	0	0	1	0	2	2,454.17	1147	1168	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	DGSPEAPASPEREEVALSEYK	K	T	95.00%	2.58	0.401	0	1	0	0	2	2,341.02	1345	1365	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	ESQPSPPAQEAGYSTLAQSYPSDLPEEPSSP	K	M	93.70%	6.84	0.0013	0	0	1	0	2	3,739.63	625	658	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	ESVHESIDTMSPMHK	R	N	95.00%	3.61	0.34	0	0	1	0	2	1,807.74	600	614	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	ETSPESSLIQDEIAVK	K	L	95.00%	3.73	0.576	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	GHDLSPLASDILTNTSGSMDEGDDYLPATTI	R	A	95.00%	6.08	0.0605	0	0	2	0	2	3,711.66	721	755	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	KDEWGLVAPISPGPLTPMR	K	E	95.00%	4.11	0.316	0	0	1	0	2	2,144.06	275	293	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	RKSVPSETVVEDSR	R	T	95.00%	3.43	0.307	0	1	1	0	2	1,668.80	831	844	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	RLSNVSSSGSINLLESPQLATLAEDVTAALAK	R	Q	89.60%	6.37	0.0017	0	0	1	0	2	3,335.71	1793	1824	TRUE	
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	RPSPHDEEEFEVEEAAEAQAEPK	R	D	95.00%	6.3	0.481	0	0	1	1	2	2,704.14	1322	1344	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	11	13	14	0.09%	11.80%	SVPSETVVEDSR	K	T	95.00%	2.23	0.372	0	1	0	0	2	1,384.60	833	844	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	AAGARPLTSPESLSR	K	D	95.00%	2.24	0.375	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	93.50%	5.36	0.0473	0	0	1	0	2	2,865.29	88	118	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.25	0.398	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.34	0.481	0	1	1	0	2	1,798.73	964	980	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.44	0.301	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	6	8	8	0.05%	7.98%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.14	0.346	0	0	1	0	2	3,036.38	937	963	TRUE	
SNU216_PC1_03	hypothetical protein LOC55215	IPI00019447,IPI00477345	142,574.60	99.70%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	94.30%	1.8	0.259	0	1	0	0	2	1,170.54	403	412	TRUE	
SNU216_PC1_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	90.80%	2.47	0.17	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC1_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.55	0.253	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC1_03	CAD protein	IPI00301263	242,982.50	100.00%	3	4	4	0.02%	2.43%	IHRASDPGLPAEEPK	R	E	95.00%	3.25	0.324	0	0	1	0	2	1,696.81	1855	1869	TRUE	
SNU216_PC1_03	CAD protein	IPI00301263	242,982.50	100.00%	3	4	4	0.02%	2.43%	IHRASDPGLPAEEPKEK	R	S	95.00%	3.69	0.35	0	1	1	0	2	1,953.94	1855	1871	TRUE	
SNU216_PC1_03	CAD protein	IPI00301263	242,982.50	100.00%	3	4	4	0.02%	2.43%	QASPQNLGTPGLLHPQTSPLLHSLVGQHILS	R	D	95.00%	5.31	0.443	0	0	0	1	2	4,052.11	1898	1934	TRUE	
SNU216_PC1_03	zinc finger protein 609	IPI00307591	151,192.70	99.80%	2	2	2	0.01%	1.49%	APSLTDLVK	K	S	95.00%	2.06	0.267	0	1	0	0	2	1,023.51	1053	1061	TRUE	
SNU216_PC1_03	zinc finger protein 609	IPI00307591	151,192.70	99.80%	2	2	2	0.01%	1.49%	LVEPHSPSPSSK	R	F	95.00%	2.32	0.336	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216_PC1_03	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	4	4	4	0.02%	4.76%	EDSTLALAVGSESPLATPASPSAAPEPEK	R	G	95.00%	2.97	0.18	0	0	1	0	2	2,902.36	446	474	TRUE	
SNU216_PC1_03	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	4	4	4	0.02%	4.76%	KITPPSSPHSLTSTLVSLGHEEALEMAGSK	R	N	95.00%	5.21	0.0788	0	0	1	0	2	3,184.56	1057	1086	TRUE	
SNU216_PC1_03	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	4	4	4	0.02%	4.76%	MSPSGGAPQTTPTLR	K	S	95.00%	2.87	0.421	0	1	0	0	2	1,580.71	1153	1167	TRUE	
SNU216_PC1_03	OTTHUMP00000028561	IPI00396634	196,711.40	100.00%	4	4	4	0.02%	4.76%	VSPKSPPTDQKK	R	G	95.00%	2.31	0.247	0	0	1	0	2	1,391.69	1362	1373	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	DAELQDQEFGKRDSLGTYSSR	R	D	95.00%	2.98	0.145	0	1	0	0	2	2,482.09	859	879	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	DAGRPGERGSGGLFSPSTAHVPDGALGQR	R	D	95.00%	3.01	0.341	0	0	0	1	2	2,929.37	1015	1043	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	DHHGRYSSQDADEQDWEFQK	R	R	95.00%	2.98	0.185	0	0	0	1	2	2,558.00	913	932	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	DSLGAYASQDANEQGQDLGK	R	R	95.00%	4.19	0.589	0	1	1	0	2	2,146.89	892	911	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	DSLGTYSSR	R	D	86.20%	1.61	0.166	1	0	0	0	2	1,065.42	871	879	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	DVSLGDWEFGKRDSLGAYASQDANEQGQ	R	R	95.00%	4.77	0.381	0	0	1	0	2	3,536.56	880	911	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	FSEGVLQSPSQDQEK	R	L	95.00%	3.14	0.104	0	0	1	0	2	1,758.76	428	442	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	2.88	0.295	0	1	1	0	2	2,090.97	1023	1043	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	KEVLASPDR	R	L	88.10%	2.11	0.159	0	1	0	0	2	1,094.52	173	181	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	LDSPPPSPITEASEAAEAAEAGNLAVSSR	R	E	95.00%	5.1	0.536	0	0	1	0	2	2,917.35	492	520	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	NRSAEEGELAESK	R	S	95.00%	2.54	0.234	0	0	1	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	7.06	0.566	0	1	0	0	2	2,302.99	891	911	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	6.59	0.428	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	8.38	0.598	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	SAEEGELAESK	R	S	95.00%	2.53	0.469	0	1	0	0	2	1,229.49	1666	1676	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	SFGTRPLSSGFSPEEAQQQDEEFEK	R	K	95.00%	5.06	0.121	0	0	1	0	2	2,910.25	976	1000	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.49	0.553	0	1	2	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	SQEADVQDWEFR	R	K	95.00%	3.08	0.488	0	1	0	0	2	1,589.63	836	847	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	VPSSDEEVVEEPQSR	R	R	95.00%	3.73	0.393	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	VSGAGFSPSSK	R	M	95.00%	2.33	0.398	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	WLDDLLASPPPSGGGAR	R	R	95.00%	2.54	0.188	0	1	0	0	2	1,788.83	684	700	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	WSDQGPAQTSR	R	R	95.00%	2.13	0.386	0	1	0	0	2	1,312.53	1532	1542	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	YESQEPLAGQESPLPLATR	R	E	95.00%	4.43	0.52	0	1	1	0	2	2,166.01	590	608	TRUE	
SNU216_PC1_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	24	29	30	0.19%	19.20%	YSSQDADEQDWEFQKR	R	D	95.00%	2.94	0.43	0	1	1	0	2	2,111.83	918	933	TRUE	
SNU216_PC1_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	99.80%	1	1	1	0.01%	2.96%	SESPKEPEQLR	K	K	95.00%	2.08	0.347	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216_PC1_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	4.54	0.508	0	0	1	0	2	3,222.36	68	95	TRUE	
SNU216_PC1_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	3.51	0.368	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216_PC1_03	claspin	IPI00160348,IPI00744511,IP	151,281.90	99.80%	2	3	3	0.02%	3.44%	NFVFHTLSPVKAEAAK	R	E	95.00%	3.4	0.174	0	0	1	0	2	1,838.92	1284	1299	TRUE	
SNU216_PC1_03	claspin	IPI00160348,IPI00744511,IP	151,281.90	99.80%	2	3	3	0.02%	3.44%	NIDDASQMDLFHRDSDDDQTEEQLDESEA	K	W	95.00%	4.93	0.484	0	0	1	1	2	3,604.43	1144	1173	TRUE	
SNU216_PC1_03	PREDICTED: similar to melanoma inhibitory activit	IPI00374065,IPI00455473	213,705.70	100.00%	1	1	1	0.01%	1.42%	WSAEASGKPSPSDPGSGTATMMNSSSR	R	G	95.00%	5.91	0.0549	0	0	1	0	2	2,763.14	1716	1742	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	AADISLDNLVEGK	K	R	95.00%	2.59	0.366	0	0	1	0	2	1,424.67	1619	1631	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	EEKSVEYEGDLK	K	S	95.00%	2.75	0.357	0	1	0	0	2	1,505.64	811	822	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	EGDIIPPLTGATPPLIGHLK	K	L	95.00%	3.1	0.388	0	0	1	0	2	2,119.12	916	935	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	EQLSAQELMESGLQIQKSPEPEVLSTQEDLF	K	T	92.70%	6.07	0.033	0	0	1	0	2	4,155.93	282	317	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	ETAVPGPLGIEDISPNLSPDDK	R	S	95.00%	3.47	0.512	0	0	1	1	2	2,344.10	1418	1439	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	GNLLHFPSSQGEEEK	R	E	95.00%	2.67	0.288	0	1	0	0	2	1,751.76	1065	1079	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	GNLLHFPSSQGEEEKEK	R	L	95.00%	3.19	0.348	0	1	0	0	2	2,008.90	1065	1081	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	GSGEKPVSAPGDDTESLHSQGEEEFDMPQI	R	H	95.00%	3.06	0.274	0	0	0	2	2	4,330.76	1206	1243	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	5.05	0.496	0	2	2	0	2	2,657.12	541	563	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	KNGSTAVAESVASPQK	R	T	95.00%	3.59	0.419	0	1	0	0	2	1,653.78	1021	1036	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	LAILDQELEHKEQEAWEEATSEDSSVVIVDV	K	V	95.00%	6.36	0.566	0	0	0	1	2	4,286.04	736	772	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	LDTKEEKSVEYEGDLK	R	S	95.00%	2.83	0.267	0	0	1	0	2	1,962.89	807	822	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	LITSEEERSPAK	K	R	95.00%	2.25	0.296	0	1	0	0	2	1,439.68	1675	1686	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	LSDVDANTAIKHEEQSNEDIPIAEQSSK	R	D	95.00%	5.39	0.415	0	0	1	0	2	3,148.43	212	239	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	MVIQGPSSPQGEAMVTDVLEDQK	K	E	95.00%	5.64	0.553	0	1	2	0	2	2,555.14	1112	1134	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	6.94	0.58	0	0	2	1	2	2,881.31	1112	1137	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	NGSTAVAESVASPQK	K	T	95.00%	3	0.385	0	1	0	0	2	1,525.69	1022	1036	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	QDKPMDTSVLSEEGEPFQKK	R	L	95.00%	3.35	0.205	0	0	1	0	2	2,430.09	393	413	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	3.86	0.283	0	0	4	1	2	2,457.22	1090	1111	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	5.33	0.463	0	0	2	0	2	3,282.51	1464	1495	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SEALSSVLDQEEAMEIK	R	E	95.00%	3.29	0.456	0	1	0	0	2	1,958.87	640	656	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SEDMPFSPK	R	A	95.00%	2.61	0.435	0	2	0	0	2	1,117.43	264	272	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SEDPPTTPIR	R	G	95.00%	2.49	0.376	0	1	0	0	2	1,192.52	1055	1064	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SGTAETEPVEQDSSQPSLPLVR	K	A	95.00%	3.73	0.404	0	1	1	0	2	2,407.10	823	844	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SKLPDGPTGSSEEEEEFLEIPPFNK	R	Q	95.00%	3.74	0.337	0	0	1	0	2	2,856.29	1754	1778	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SNVSSPATPTASSSSSTTPTR	R	K	95.00%	4.55	0	0	1	0	0	2	2,102.92	1636	1656	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SPEPEVLSTQEDLFDQSNK	K	T	95.00%	4.59	0.564	0	1	1	0	2	2,242.98	299	317	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	STPFIVPSSPTEQEGR	R	Q	95.00%	2.71	0.33	0	1	1	0	2	1,811.82	377	392	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	SVEYEGDLK	K	S	90.80%	1.95	0.182	0	1	0	0	2	1,119.46	814	822	TRUE	
SNU216_PC1_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	100.00%	30	38	48	0.30%	26.20%	TSSGTSLSAMHSSGSSGK	R	G	92.10%	3.55	0.0294	0	1	0	0	2	1,748.72	1320	1337	TRUE	
SNU216_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	4	4	0.02%	1.39%	IRAEEEDLAAVPFLASDNEEEEDEKGNSGSLI	R	K	95.00%	5.29	0.41	0	0	0	1	2	3,712.69	2913	2945	TRUE	
SNU216_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	4	4	0.02%	1.39%	KDEEETPAPIYR	K	A	83.20%	2.34	0.174	0	0	1	0	2	1,527.67	82	93	TRUE	
SNU216_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	4	4	0.02%	1.39%	KQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.65	0.495	0	0	1	0	2	2,407.23	2452	2472	TRUE	
SNU216_PC1_03	HECT domain and RCC1-like domain-containing p	IPI00005826	527,469.10	100.00%	4	4	4	0.02%	1.39%	RKQSPVPALPIVVQLMEMGFSR	R	R	95.00%	5.42	0.549	0	0	1	0	2	2,563.33	2451	2472	TRUE	
SNU216_PC1_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	4.92	0.031	0	1	0	0	2	2,962.19	870	898	TRUE	
SNU216_PC1_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	5.15	0.52	0	0	1	1	2	3,209.61	696	726	TRUE	
SNU216_PC1_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	4	4	0.02%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.74	0.025	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC1_03	Structural maintenance of chromosome 1-like 1 p	IPI00291939	143,238.30	100.00%	1	1	1	0.01%	1.95%	GTMDDISQEEGSSQGEDSVSGSQR	K	I	95.00%	4.51	0.01	0	1	0	0	2	2,565.99	945	968	TRUE	
SNU216_PC1_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.13	0.295	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216_PC1_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	4	0.303	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216_PC1_03	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	98.60%	2	2	2	0.01%	1.52%	SYSSPDITQAIQEEEK	R	R	84.80%	3.21	0.0347	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216_PC1_03	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	98.60%	2	2	2	0.01%	1.52%	SYSSPDITQAIQEEEKR	R	K	90.80%	3.77	0.0393	0	1	0	0	2	2,060.92	716	732	TRUE	
SNU216_PC1_03	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	100.00%	4	4	4	0.02%	4.13%	AHVEHMQSLPEDPLETSKEEEELNDSSEELY	K	I	95.00%	6.06	0.0299	0	0	0	1	2	4,137.84	1240	1274	TRUE	
SNU216_PC1_03	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	100.00%	4	4	4	0.02%	4.13%	KGGHSSPASSDK	K	N	95.00%	2.27	0.246	0	0	1	0	2	1,237.52	1496	1507	TRUE	
SNU216_PC1_03	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	100.00%	4	4	4	0.02%	4.13%	TASPPALPK	R	I	95.00%	1.89	0.324	0	1	0	0	2	961.4756	641	649	TRUE	
SNU216_PC1_03	Isoform 1 of PR domain zinc finger protein 2	IPI00016780	188,916.30	100.00%	4	4	4	0.02%	4.13%	TSSPPSSPQHSPALR	R	D	95.00%	2.37	0.373	0	1	0	0	2	1,628.74	737	751	TRUE	
SNU216_PC1_03	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	11	0.07%	4.92%	AGAGMITQHSSNASPINR	R	I	95.00%	3.08	0.177	0	1	0	0	2	1,891.85	989	1006	TRUE	
SNU216_PC1_03	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	11	0.07%	4.92%	DGQDAIAQSPEK	K	E	95.00%	2.42	0.343	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216_PC1_03	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	11	0.07%	4.92%	DGQDAIAQSPEKESK	K	D	95.00%	3.54	0.34	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC1_03	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	11	0.07%	4.92%	ISSKSPGHMVILDQTK	R	G	95.00%	4.07	0.437	0	1	3	0	2	1,820.90	549	564	TRUE	
SNU216_PC1_03	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	11	0.07%	4.92%	RISSKSPGHMVILDQTK	K	G	95.00%	3.87	0.247	0	0	1	0	2	2,056.97	548	564	TRUE	
SNU216_PC1_03	modulator of estrogen induced transcription isofo	IPI00019996,IPI00171749	117,151.10	100.00%	6	8	11	0.07%	4.92%	SPGHMVILDQTK	K	G	95.00%	2.86	0.369	0	1	0	0	2	1,405.65	553	564	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	ASPSKPASAPASR	R	S	95.00%	3.06	0.465	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.41	0.202	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	DMESPTKLDVTLAK	K	D	95.00%	3.63	0.382	0	2	2	0	2	1,643.76	305	318	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	DMSPLSETEMALGK	K	D	95.00%	3.25	0.507	0	5	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.08	0.444	0	0	3	0	2	3,106.50	533	560	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	DVTPPPETEVVLIK	K	N	95.00%	2.42	0.376	0	2	1	0	2	1,616.82	547	560	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	ETERASPIKMDLAPSK	K	D	95.00%	3.06	0.212	0	1	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	7	0.0445	0	0	1	0	2	3,569.64	628	661	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	C	95.00%	5.98	0.0767	0	0	1	1	2	3,697.73	628	662	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	RASPSKPASAPASR	K	S	95.00%	2.34	0.305	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	SPSTLLPK	R	K	95.00%	1.54	0.219	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216_PC1_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	12	16	25	0.16%	14.70%	VGSLDNVGHLPAGGAVK	K	I	95.00%	2.36	0.293	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	8	0.05%	4.17%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.87	0.541	0	1	1	0	2	2,224.85	760	778	TRUE	
SNU216_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	8	0.05%	4.17%	EADDDEEVDDNIPEMPSPKK	K	M	95.00%	4.48	0.463	0	1	1	0	2	2,352.94	760	779	TRUE	
SNU216_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	8	0.05%	4.17%	SKSDGEAKPEPSPSPR	R	I	95.00%	2.57	0.232	0	0	1	0	2	1,748.79	203	218	TRUE	
SNU216_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	8	0.05%	4.17%	VGMADANSPPKPLSKPR	R	T	95.00%	3.02	0.362	0	1	1	0	2	1,860.90	182	198	TRUE	
SNU216_PC1_03	Isoform 1 of DNA	IPI00031519	189,570.80	100.00%	5	8	8	0.05%	4.17%	VNPQISDEKDEDEKEEK	K	R	95.00%	3.03	0.216	0	0	1	0	2	2,111.90	369	385	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	DSEDVSERDSDKEMATK	R	S	95.00%	2.36	0.351	0	1	0	0	2	2,021.80	111	127	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	EGVTPWASFKK	R	M	95.00%	2.14	0.22	0	1	0	0	2	1,329.62	604	614	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	GLAEVQQDGEAEEGATSDGEK	K	K	95.00%	3.7	0.306	0	2	1	0	2	2,199.89	581	601	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	GLAEVQQDGEAEEGATSDGEKKR	K	E	94.00%	3.98	0.131	0	0	1	0	2	2,484.09	581	603	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	LTASEQAHPQEPAESAHEPRLSAEYEK	K	V	95.00%	4.34	0.483	0	0	1	0	2	3,085.39	349	375	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	RPSESDKEDELDK	R	V	95.00%	2.07	0.294	0	1	0	0	2	1,707.65	624	636	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	5.69	0.539	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216_PC1_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	8	9	10	0.06%	8.03%	VLSKPPEGVVSEVEMLSSQER	K	M	95.00%	2.77	0.224	0	0	1	0	2	2,380.15	487	507	TRUE	
SNU216_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	7	10	0.06%	2.39%	AAMYDIISSPSK	K	D	95.00%	2.54	0.234	0	1	0	0	2	1,362.60	342	353	TRUE	
SNU216_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	7	10	0.06%	2.39%	AAMYDIISSPSKDSTK	K	L	95.00%	3.73	0.0327	0	1	0	0	2	1,793.80	342	357	TRUE	
SNU216_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	7	10	0.06%	2.39%	AITSLLGGGSPK	K	N	95.00%	2.36	0.214	1	1	0	0	2	1,180.60	2649	2660	TRUE	
SNU216_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	7	10	0.06%	2.39%	DVPPDILLDSPER	R	K	95.00%	2.29	0.254	0	2	0	0	2	1,545.72	309	321	TRUE	
SNU216_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	7	10	0.06%	2.39%	NNTAAETEDDESDGEDR	K	G	95.00%	3.58	0.598	0	3	0	0	2	1,947.67	2661	2677	TRUE	
SNU216_PC1_03	Isoform 1 of Nipped-B-like protein	IPI00436632	316,055.30	100.00%	6	7	10	0.06%	2.39%	NNTAAETEDDESDGEDRGGGTSGSLR	K	R	95.00%	3.52	0.275	0	0	1	0	2	2,720.06	2661	2686	TRUE	
SNU216_PC1_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	22.60%	NSQEDSEDSEDKDVK	K	T	95.00%	2.85	0.413	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216_PC1_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	22.60%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	1.93	0.313	0	0	1	0	2	2,236.76	50	67	TRUE	
SNU216_PC1_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	22.60%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.26	0.169	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216_PC1_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	4	4	5	0.03%	22.60%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.04	0.529	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216_PC1_03	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	4	4	4	0.02%	4.20%	AAQQQQPSASPR	R	A	86.10%	2.17	0.15	0	1	0	0	2	1,348.60	1444	1455	TRUE	
SNU216_PC1_03	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	4	4	4	0.02%	4.20%	ELGPLPDDDDMASPK	K	L	95.00%	2.2	0.255	0	1	0	0	2	1,679.69	624	638	TRUE	
SNU216_PC1_03	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	4	4	4	0.02%	4.20%	RDDIEDGDSMISSATSDTGSAK	R	R	81.50%	3.21	0.111	0	0	1	0	2	2,337.94	490	511	TRUE	
SNU216_PC1_03	Isoform 1 of Protein polybromo-1	IPI00384176	192,954.00	100.00%	4	4	4	0.02%	4.20%	YIEGLSAESNSISKWDQTLAAR	K	R	93.20%	3.06	0.149	0	0	1	0	2	2,599.15	1613	1634	TRUE	
SNU216_PC1_03	hypothetical protein LOC23074 isoform a	IPI00479669	164,202.30	99.80%	2	2	2	0.01%	2.53%	DHNVGSPPKSPTHASPQHTQTEK	K	D	95.00%	3.84	0.327	0	0	0	1	2	2,560.16	409	431	TRUE	
SNU216_PC1_03	hypothetical protein LOC23074 isoform a	IPI00479669	164,202.30	99.80%	2	2	2	0.01%	2.53%	SGSGEIGSETSDKK	K	D	95.00%	2.07	0.31	0	1	0	0	2	1,461.61	987	1000	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	2	2	2	0.01%	2.17%	ASPGHSPHYFAASSPTSPNALPPAR	R	K	95.00%	4.01	0.367	0	0	1	0	2	2,597.19	1851	1875	TRUE	
SNU216_PC1_03	Isoform 1 of Nuclear pore membrane glycoprotei	IPI00291755	205,538.50	100.00%	2	2	2	0.01%	2.17%	KASPPSGLWSPAYASH	R	-	95.00%	2.76	0.263	0	0	1	0	2	1,735.78	1876	1891	TRUE	
SNU216_PC1_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	GADNDGSGSESGYTTPK	K	K	95.00%	2.38	0.271	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC1_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	NDSWGSFDLR	R	A	95.00%	2.42	0.401	0	1	0	0	2	1,276.50	650	659	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	3	4	0.02%	5.61%	RTSPQVLGSILK	K	S	95.00%	3.18	0.36	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC1_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.80%	2	2	2	0.01%	1.32%	VASPSQGQVGSSSPK	R	R	95.00%	2.49	0.291	0	1	0	0	2	1,495.68	325	339	TRUE	
SNU216_PC1_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.80%	2	2	2	0.01%	1.32%	VASPSQGQVGSSSPKR	R	S	95.00%	3.19	0.236	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216_PC1_03	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	99.90%	2	2	2	0.01%	1.68%	NSSDQEGNNISSSSGHR	K	V	95.00%	2.7	0.467	0	1	0	0	2	1,855.72	275	291	TRUE	
SNU216_PC1_03	PREDICTED: similar to MAX-interacting protein isc	IPI00163866,IPI00737498	315,122.20	99.90%	2	2	2	0.01%	1.68%	NTPVSPGSTFPDVKPDLEDVDGVLFVSFESK	K	E	95.00%	5.36	0.569	0	0	1	0	2	3,402.60	641	671	TRUE	
SNU216_PC1_03	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	4	4	4	0.02%	8.09%	EVDEVDAALSDLEITLEGGK	K	T	95.00%	2.61	0.415	0	1	0	0	2	2,183.00	342	361	TRUE	
SNU216_PC1_03	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	4	4	4	0.02%	8.09%	KKLDDQSEDEALELEGPLITPGSGSIYSSPGLY	K	T	95.00%	7.11	0.518	0	0	1	0	2	3,803.82	153	187	TRUE	
SNU216_PC1_03	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	4	4	4	0.02%	8.09%	KLDDQSEDEALELEGPLITPGSGSIYSSPGLY	K	T	95.00%	6.46	0.551	0	0	1	0	2	3,675.72	154	187	TRUE	
SNU216_PC1_03	Isoform 1 of Pleckstrin homology domain-contain	IPI00000856	77,863.90	100.00%	4	4	4	0.02%	8.09%	LDDQSEDEALELEGPLITPGSGSIYSSPGLYS	K	T	95.00%	3.52	0.396	0	0	1	0	2	3,547.63	155	187	TRUE	
SNU216_PC1_03	Nuclear pore complex protein Nup153	IPI00292059,IPI00480157,IP	153,890.10	99.70%	1	1	1	0.01%	1.56%	EIKDSTSQHDDDNISTTSGFSSR	K	A	95.00%	3	0.399	0	0	1	0	2	2,607.08	168	190	TRUE	
SNU216_PC1_03	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	99.80%	2	2	2	0.01%	1.98%	EAAEPLSEPKEDQEAAELLSEPEEESER	K	H	95.00%	5.35	0.497	0	0	1	0	2	3,221.39	1104	1131	TRUE	
SNU216_PC1_03	KIAA1618 protein (Fragment)	IPI00242962	160,276.10	99.80%	2	2	2	0.01%	1.98%	EDQEAAELLSEPEEESER	K	H	95.00%	3.62	0.356	0	1	0	0	2	2,169.87	1114	1131	TRUE	
SNU216_PC1_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTK	R	R	95.00%	3.35	0.326	0	0	1	0	2	2,616.12	1181	1203	TRUE	
SNU216_PC1_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	5.41	0.483	0	0	1	1	2	2,772.23	1181	1204	TRUE	
SNU216_PC1_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	137,808.20	100.00%	3	4	4	0.02%	2.94%	SSIHNFMTHPEFR	R	I	95.00%	2.86	0.23	0	0	1	0	2	1,682.71	1168	1180	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	DLEPGEVPSDSDEDGEHK	R	S	95.00%	3.2	0.504	0	2	1	0	2	2,034.78	1372	1389	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	ESGVVAVSPEKSESPQKEDGLSSQLK	R	S	95.00%	4.47	0.368	0	0	1	0	2	2,795.33	2113	2138	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	FGSPKKDVDEYER	K	R	95.00%	2.57	0.336	0	0	1	0	2	1,649.72	1192	1204	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	HGSFHEDEDPIGSPR	R	L	95.00%	2.7	0.258	0	0	1	0	2	1,759.71	1266	1280	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	SDPVDPDKEPEKEDVSASGPSPEATQLAK	K	Q	95.00%	5.24	0.43	0	0	1	0	2	3,103.40	2139	2167	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	SESPQKEDGLSSQLK	K	S	95.00%	2.1	0.284	0	1	0	0	2	1,712.77	2124	2138	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	SLVHEVGKPPQDVTDDSPPSK	R	K	95.00%	3.51	0.372	0	0	1	0	2	2,312.08	1206	1226	TRUE	
SNU216_PC1_03	Msx2-interacting protein	IPI00045914	402,244.70	100.00%	8	9	10	0.06%	3.36%	SLVHEVGKPPQDVTDDSPPSKK	R	K	95.00%	3.36	0.248	0	0	0	1	2	2,440.18	1206	1227	TRUE	
SNU216_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	5	5	0.03%	8.84%	ISEGLPTPTKMTPR	K	S	95.00%	2.63	0.217	0	1	0	0	2	1,607.79	815	828	TRUE	
SNU216_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	5	5	0.03%	8.84%	KSNLDEEVNVIPPHTPVR	R	T	95.00%	3.97	0.294	0	0	1	0	2	2,124.05	359	376	TRUE	
SNU216_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	5	5	0.03%	8.84%	KTAATAAAAAAEPPAPPPPPPPEEDPEQDS	R	L	95.00%	7.06	0.614	0	0	1	1	2	3,976.89	8	46	TRUE	
SNU216_PC1_03	Retinoblastoma-associated protein	IPI00302829	106,164.60	100.00%	4	5	5	0.03%	8.84%	TAVIPINGSPR	K	T	95.00%	2.33	0.351	0	1	0	0	2	1,204.61	241	251	TRUE	
SNU216_PC1_03	Myosin-10	IPI00397526	228,945.20	100.00%	2	2	2	0.01%	1.01%	QLHLEGASLELSDDDTESK	R	T	95.00%	3.6	0.254	0	1	0	0	2	2,166.94	1945	1963	TRUE	
SNU216_PC1_03	Myosin-10	IPI00397526	228,945.20	100.00%	2	2	2	0.01%	1.01%	RQLHLEGASLELSDDDTESK	R	T	95.00%	4.88	0.391	0	0	1	0	2	2,323.05	1944	1963	TRUE	
SNU216_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	5	0.03%	3.44%	FHALSSPQSPFPSTPTSR	K	R	95.00%	3.3	0.274	0	0	2	0	2	2,023.93	1560	1577	TRUE	
SNU216_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	5	0.03%	3.44%	LIDLESPTPESQK	K	S	95.00%	2.77	0.294	0	1	0	0	2	1,536.72	1544	1556	TRUE	
SNU216_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	5	0.03%	3.44%	RLSPGSDIYVTVSSMALAR	R	S	95.00%	4.08	0.459	0	0	1	0	2	2,103.03	1125	1143	TRUE	
SNU216_PC1_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	100.00%	4	4	5	0.03%	3.44%	TLSDESIYNSQR	R	E	95.00%	2.67	0.304	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216_PC1_03	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	4.22%	AGSNEDPILAPSGTPPPTIPPDETFGGR	R	V	95.00%	4.01	0.426	0	0	1	0	2	2,870.33	644	671	TRUE	
SNU216_PC1_03	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	99.80%	2	2	2	0.01%	4.22%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.41	0.266	0	1	0	0	2	1,606.75	478	493	TRUE	
SNU216_PC1_03	Epiplakin	IPI00010951	553,088.70	99.80%	1	1	1	0.01%	0.38%	QVSASELHTSGILGPETLR	R	D	95.00%	2.59	0.254	0	1	0	0	2	2,075.02	2689	2707	TRUE	
SNU216_PC1_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	2	3	3	0.02%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	2.98	0.426	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC1_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	99.80%	2	3	3	0.02%	4.91%	YRSPYSGPK	R	F	95.00%	2.17	0.172	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC1_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	5	0.03%	6.12%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	5.87	0.5	0	0	0	1	2	4,118.93	479	519	TRUE	
SNU216_PC1_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	2	3	5	0.03%	6.12%	RPMEEDGEEKSPSK	K	K	95.00%	3.77	0.429	0	2	2	0	2	1,698.70	372	385	TRUE	
SNU216_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	4	6	6	0.04%	1.14%	AAPPPPPPPPPLESSPR	K	V	95.00%	3.39	0.238	0	1	1	0	2	1,783.88	606	622	TRUE	
SNU216_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	4	6	6	0.04%	1.14%	RHVTLPSSPR	R	S	95.00%	3	0.296	0	0	1	0	2	1,229.62	2712	2721	TRUE	
SNU216_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	4	6	6	0.04%	1.14%	SNTPMGDKDDDDDDDADEK	R	M	95.00%	5.1	0.708	0	1	1	0	2	2,177.73	2722	2740	TRUE	
SNU216_PC1_03	retinoblastoma-associated factor 600	IPI00643014,IPI00746934	573,842.50	100.00%	4	6	6	0.04%	1.14%	SNTPMGDKDDDDDDDADEKMQSSGIPNC	R	Q	95.00%	2.65	0.224	0	0	0	1	2	3,512.39	2722	2753	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	AASPSPQSVR	K	R	95.00%	2.02	0.516	1	2	0	0	2	1,079.49	745	754	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	APQTSSSPPPVR	R	R	95.00%	2.65	0.386	0	2	0	0	2	1,303.60	699	710	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	EKTPELPEPSVK	K	V	95.00%	2.48	0.367	0	1	0	0	2	1,433.69	218	229	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	HRPSPPATPPPK	R	T	95.00%	3	0.393	0	0	5	0	2	1,441.64	394	405	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	KEKTPELPEPSVK	K	V	95.00%	2.73	0.349	0	1	1	0	2	1,561.79	217	229	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	KETESEAEDNLDDLEK	K	H	95.00%	4.8	0.522	0	3	2	0	2	1,944.80	879	894	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.17	0.276	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4	0.43	0	0	2	2	2	2,791.42	772	797	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	KVELSESEEDKGGK	R	M	94.30%	2.62	0.223	0	0	1	0	2	1,614.73	454	467	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	RESPSPAPKPR	K	K	95.00%	2.4	0.373	0	0	1	0	2	1,301.64	443	453	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	SPSPAPPPR	R	R	95.00%	2.28	0.397	0	2	0	0	2	985.4504	569	577	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	SVSGSPEPAAK	R	K	95.00%	2.31	0.45	0	2	0	0	2	1,109.49	761	771	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	TASPPPPPK	R	R	95.00%	1.86	0.445	1	1	0	0	2	1,051.43	623	631	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	TASPPPPPKR	R	R	95.00%	2.15	0.24	0	0	1	0	2	1,207.53	623	632	TRUE	
SNU216_PC1_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	15	22	35	0.22%	17.60%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.55	0.505	0	1	1	1	2	1,977.99	247	263	TRUE	
SNU216_PC1_03	mucin 16	IPI00103552	1,389,472.80	99.60%	1	1	1	0.01%	0.04%	SATVM	L	V	91.70%	1.39	0.295	1	0	0	0	0	668.1762	993	997	TRUE	
SNU216_PC1_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	7.75%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.76	0.306	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216_PC1_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	7.75%	ATDSDLSSPR	K	H	81.20%	1.94	0.181	0	1	0	0	2	1,128.46	351	360	TRUE	
SNU216_PC1_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	7.75%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.5	0.463	0	0	1	0	2	1,861.85	269	284	TRUE	
SNU216_PC1_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	7.75%	HDSPDPDSPPR	R	R	95.00%	2.19	0.359	0	1	0	0	2	1,264.44	195	204	TRUE	
SNU216_PC1_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	5	5	5	0.03%	7.75%	HDTPDPSPLR	R	G	95.00%	1.86	0.325	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216_PC1_03	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	5	5	0.03%	2.40%	DTPRPDHPPHDGHSPASR	R	E	95.00%	2.92	0.29	0	0	1	1	2	2,055.88	1197	1214	TRUE	
SNU216_PC1_03	WD-repeat protein 33	IPI00106567	145,920.70	99.80%	2	5	5	0.03%	2.40%	SSSLDGEHHDGYHR	R	D	95.00%	3	0.338	0	1	1	1	2	1,676.65	1277	1290	TRUE	
SNU216_PC1_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.02%	6.35%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	3.76	0.402	0	0	2	0	2	3,169.31	651	677	TRUE	
SNU216_PC1_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.02%	6.35%	DGTSPEEEIEIER	K	Q	95.00%	2.61	0.496	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216_PC1_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.02%	6.35%	TLDSGTSEIVKSPR	R	I	95.00%	3.45	0.419	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216_PC1_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	6	0.04%	2.91%	ENPPVEDSSDEDDKR	R	N	95.00%	3.24	0.367	0	1	1	0	2	1,811.70	491	505	TRUE	
SNU216_PC1_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	6	0.04%	2.91%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.76	0.301	0	0	2	0	2	2,744.13	491	513	TRUE	
SNU216_PC1_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	3	5	6	0.04%	2.91%	RENPPVEDSSDEDDKR	K	N	95.00%	2.81	0.259	0	1	1	0	2	2,047.76	490	505	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	100.00%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLK	K	E	95.00%	3.68	0.407	0	1	0	0	2	2,126.01	629	646	TRUE	
SNU216_PC1_03	Ribosome biogenesis protein BMS1 homolog	IPI00006099	145,812.20	100.00%	2	3	3	0.02%	2.42%	LGPQNFIDETSDIENLLKEEEDYKEENNDSK	K	E	95.00%	5.62	0.515	0	0	1	1	2	3,735.64	629	659	TRUE	
SNU216_PC1_03	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	99.80%	2	3	3	0.02%	2.00%	KVPSFTFTPTVTYQR	R	G	95.00%	3.29	0.327	0	1	1	0	2	1,851.90	937	951	TRUE	
SNU216_PC1_03	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	99.80%	2	3	3	0.02%	2.00%	PTSPVSTDSNMSAAVMQK	R	T	95.00%	3.33	0.408	0	1	0	0	2	1,930.83	1440	1457	TRUE	
SNU216_PC1_03	RNA binding motif protein 25	IPI00004273	100,189.10	99.90%	1	1	1	0.01%	1.66%	LGASNSPGQPNSVK	K	R	95.00%	3.06	0.372	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC1_03	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	2	2	2	0.01%	2.55%	ATEDGEEDEVSAGEK	K	E	95.00%	2.68	0.293	0	1	0	0	2	1,645.61	1425	1439	TRUE	
SNU216_PC1_03	Isoform 2 of Fanconi anemia group D2 protein	IPI00604399	164,133.80	100.00%	2	2	2	0.01%	2.55%	SQNSQESTADESEDDMSSQASK	K	S	95.00%	4.31	0.169	0	1	0	0	2	2,440.89	1401	1422	TRUE	
SNU216_PC1_03	SCC-112 protein	IPI00303063	150,835.50	99.80%	1	1	1	0.01%	1.27%	AAVGQESPGGLEAGNAK	R	A	95.00%	3.06	0.426	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216_PC1_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	99.00%	2	2	2	0.01%	1.39%	LFDDEASVDEPR	R	R	79.80%	2.19	0.159	0	1	0	0	2	1,472.59	639	650	TRUE	
SNU216_PC1_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	99.00%	2	2	2	0.01%	1.39%	VPDSPENELK	K	S	95.00%	2.39	0.327	0	1	0	0	2	1,207.52	519	528	TRUE	
SNU216_PC1_03	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	3	3	3	0.02%	2.55%	SKSVDEGLDDYREDAK	K	L	95.00%	3.59	0.295	0	0	1	0	2	1,970.80	878	893	TRUE	
SNU216_PC1_03	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	3	3	3	0.02%	2.55%	TQSPHSPKEESER	K	K	95.00%	3.26	0.441	0	0	1	0	2	1,591.67	1093	1105	TRUE	
SNU216_PC1_03	Rho GTPase activating protein 21	IPI00169307	217,333.80	100.00%	3	3	3	0.02%	2.55%	TTSPPLSIPTTHLIHQPAGSR	R	S	95.00%	3.98	0.4	0	0	1	0	2	2,291.15	316	336	TRUE	
SNU216_PC1_03	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	4	0.02%	1.05%	LEHSSFPEGPGPGSGDEANGPR	R	G	95.00%	5.43	0.532	0	1	2	0	2	2,273.95	2158	2179	TRUE	
SNU216_PC1_03	Isoform 1 of Spectrin beta chain, brain 2	IPI00012645	271,295.80	100.00%	2	3	4	0.02%	1.05%	LEHSSFPEGPGPGSGDEANGPRGER	R	Q	95.00%	3.28	0.275	0	0	1	0	2	2,616.11	2158	2182	TRUE	
SNU216_PC1_03	Isoform Beta-4A of Integrin beta-4 precursor	IPI00220845,IPI00220847	194,448.80	100.00%	1	1	1	0.01%	1.14%	MTTTSAAAYGTHLSPHVPHR	R	V	81.10%	2.81	0.152	0	0	1	0	2	2,215.01	1391	1410	TRUE	
SNU216_PC1_03	CRSP complex subunit 2	IPI00297191	160,666.50	99.80%	2	3	3	0.02%	3.99%	MPGMSPANPSLHSPVPDASHSPR	R	A	95.00%	2.83	0.264	0	0	1	0	2	2,529.05	1124	1146	TRUE	
SNU216_PC1_03	CRSP complex subunit 2	IPI00297191	160,666.50	99.80%	2	3	3	0.02%	3.99%	SVNEDDNPPSPIGGDMMDSLISQLQPPPQ	R	Q	95.00%	3.14	0.18	0	0	1	1	2	3,883.76	977	1011	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	6	6	7	0.04%	5.50%	EKSESGGSEYGTGPGR	R	K	95.00%	2.73	0.431	0	1	0	0	2	1,757.64	131	146	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	6	6	7	0.04%	5.50%	ELQGDGPPSSPTNDPTVK	K	Y	95.00%	4.6	0.487	0	1	0	0	2	1,918.84	749	766	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	6	6	7	0.04%	5.50%	GGSYVFQSDEGPEPEAEESDLDSGSVHSAS	K	T	95.00%	5.39	0.212	0	0	0	1	2	3,983.68	351	388	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	6	6	7	0.04%	5.50%	KGGSYVFQSDEGPEPEAEESDLDSGSVHSA	K	T	95.00%	6.27	0.0926	0	0	0	1	2	4,111.78	350	388	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	6	6	7	0.04%	5.50%	KNDMDEPPPLDYGSGEDDGK	K	S	95.00%	4.12	0.348	0	0	1	0	2	2,258.88	629	648	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00373870,IPI00465222	231,367.10	100.00%	6	6	7	0.04%	5.50%	METEADAPSPAPSLGER	K	L	95.00%	3.38	0.546	0	2	0	0	2	1,933.73	1638	1654	TRUE	
SNU216_PC1_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	2	3	0.02%	2.84%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	2.67	0.211	0	0	1	0	2	2,672.22	157	179	TRUE	
SNU216_PC1_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	99.80%	2	2	3	0.02%	2.84%	TGSGSPFAGNSPAR	K	E	95.00%	2.38	0.322	0	2	0	0	2	1,465.55	1265	1278	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase MRCK gamma	IPI00454910	172,520.90	100.00%	2	2	2	0.01%	2.19%	GSGPQRPHSFSEALR	R	R	95.00%	2.51	0.288	0	0	1	0	2	1,705.78	1474	1488	TRUE	
SNU216_PC1_03	Serine/threonine-protein kinase MRCK gamma	IPI00454910	172,520.90	100.00%	2	2	2	0.01%	2.19%	RPASMGSEGLGGDADPMKR	R	K	95.00%	3.94	0.306	0	0	1	0	2	2,011.87	1489	1507	TRUE	
SNU216_PC1_03	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	2	0.01%	2.01%	EGDELEDNGKNFYESDDDQKEK	K	T	94.50%	2.92	0.163	0	0	1	0	2	2,684.05	262	283	TRUE	
SNU216_PC1_03	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	2	2	0.01%	2.01%	NFYESDDDQKEK	K	T	95.00%	2.11	0.211	0	1	0	0	2	1,597.61	272	283	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.39	0.532	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	5.40%	TGSESSQTGTSTTSSR	R	N	86.70%	3.2	0.042	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	AGSSTPGDAPPAVAEVQGR	R	S	95.00%	3.84	0.394	0	1	1	0	2	1,846.83	2876	2894	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	DGGSGNSTIIVSR	R	S	95.00%	2.69	0.479	0	2	0	0	2	1,422.57	2350	2362	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	DLSMSEEDQMMR	R	A	95.00%	2.51	0.463	0	1	0	0	2	1,551.55	1357	1368	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	ESQLAHIKDEPPPLSPAPLTPATPSSLDPFFSF	R	E	95.00%	5.75	0.287	0	0	1	1	2	3,622.78	3896	3928	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	GSGTASDDEFENLR	R	I	95.00%	3.13	0.51	0	2	0	0	2	1,577.61	1893	1906	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	HADHSSLTLGSGSSTTR	R	L	94.70%	2.92	0.164	0	0	1	0	2	1,793.78	2513	2529	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	LGSSGLGSASSIQAAVR	R	Q	95.00%	2.45	0.206	0	1	0	0	2	1,640.80	3741	3757	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	LLGPSAAADILQLSSSLPLQSR	R	G	95.00%	3.21	0.398	0	0	1	0	2	2,317.22	2571	2592	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	5.93	0.125	0	0	2	1	2	3,447.39	3796	3826	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	RRSSDPLGDTASNLGSAVDELMR	R	H	95.00%	5.04	0.482	0	0	1	0	2	2,527.16	646	668	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	RSSDPLGDTASNLGSAVDELMR	R	H	95.00%	4.71	0.518	0	0	1	0	2	2,371.06	647	668	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	SGEDESQEDVLMDEAPSNLSQASTLQANR	R	E	95.00%	5.01	0.488	0	0	1	0	2	3,201.35	2363	2391	TRUE	
SNU216_PC1_03	Isoform 2 of HECT, UBA and WWE domain-conta	IPI00445401,IPI00456919,IP	481,019.20	100.00%	13	16	19	0.12%	5.64%	SHHAASTTTAPTPAAR	R	S	95.00%	2.69	0.444	0	1	0	0	2	1,656.75	1075	1090	TRUE	
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.92	0.506	0	1	1	0	2	2,438.12	4224	4246	FALSE	IPI00398002,IPI00186711
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	AQLEPVASPAK	K	K	95.00%	2.2	0.273	1	0	0	0	2	1,190.58	1291	1301	FALSE	IPI00398002,IPI00186711
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	ARSDEGQLSPATR	R	G	95.00%	3.33	0.408	0	0	1	0	2	1,467.66	575	587	FALSE	IPI00398002,IPI00186711
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	GYYSPYSVSGSGSTAGSR	K	T	95.00%	3.54	0.057	0	3	0	0	2	1,862.76	4473	4490	FALSE	IPI00398002,IPI00186711
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	KRTSSEDNLYLAVLR	R	A	95.00%	3.63	0.266	0	0	1	0	2	1,844.93	17	31	TRUE	
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	5.52	0.134	0	1	3	0	2	2,853.15	4503	4529	FALSE	IPI00398002,IPI00186711
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	RTSSEDNLYLAVLR	K	A	95.00%	3.47	0.48	0	1	1	0	2	1,716.83	18	31	TRUE	
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	SDEGQLSPATR	R	G	95.00%	2.23	0.271	0	1	0	0	2	1,240.52	577	587	FALSE	IPI00398002,IPI00186711
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	SSSVGSSSSYPISPAVSR	R	T	95.00%	3.15	0.326	0	3	0	0	2	1,834.82	4247	4264	FALSE	IPI00398002,IPI00186711
SNU216_PC1_03	plectin 1 isoform 11	IPI00398779	516,193.30	100.00%	3	4	5	0.03%	2.75%	TSSEDNLYLAVLR	R	A	95.00%	3.1	0.359	0	2	0	0	2	1,560.73	19	31	TRUE	
SNU216_PC1_03	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	2	2	2	0.01%	2.24%	KSPESEILSLHLLVEELR	R	L	95.00%	3.04	0.478	0	0	1	0	2	2,172.13	713	730	TRUE	
SNU216_PC1_03	PREDICTED: similar to angiomotin	IPI00737871	145,777.50	100.00%	2	2	2	0.01%	2.24%	RDSDSFLNIFPEK	R	Q	95.00%	2.28	0.221	0	1	0	0	2	1,647.74	759	771	TRUE	
SNU216_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	10	0.06%	14.90%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.75	0.509	0	0	2	0	2	3,217.28	668	695	TRUE	
SNU216_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	10	0.06%	14.90%	ETPHSPGVEDAPIAK	R	V	80.10%	2.88	0.158	0	0	1	0	2	1,627.74	486	500	TRUE	
SNU216_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	10	0.06%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.65	0.435	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	10	0.06%	14.90%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	5.87	0.475	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	10	0.06%	14.90%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.22	0.331	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	10	0.06%	14.90%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.4	0.514	0	0	2	1	2	3,432.41	666	695	TRUE	
SNU216_PC1_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	10	0.06%	14.90%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	4.38	0.39	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.4	0.414	0	1	0	1	2	1,836.88	210	226	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	2.96	0.216	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	2.76	0.306	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216_PC1_03	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	2	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.88	0.241	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216_PC1_03	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	2	0.01%	1.27%	SSDGSLSHEEDLAK	R	V	92.10%	2.53	0.136	0	1	0	0	2	1,554.63	238	251	TRUE	
SNU216_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	GSLAPQDSDSEVSQNR	K	S	95.00%	2.84	0.401	0	1	0	0	2	1,769.73	418	433	TRUE	
SNU216_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	99.80%	2	2	2	0.01%	4.49%	HSSADNLANEMTYITETEDVFYTYK	R	G	95.00%	5.17	0.534	0	0	1	0	2	3,022.27	393	417	TRUE	
SNU216_PC1_03	Isoform 1 of AT-rich interactive domain-containin	IPI00015404,IPI00395617,IP	236,557.80	100.00%	1	1	1	0.01%	0.58%	MSPSKSPFLPSMK	R	M	95.00%	2.6	0.3	0	0	1	0	2	1,516.69	1549	1561	TRUE	
SNU216_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	GGIDNPAITSDQELDDK	K	K	95.00%	3.58	0.378	0	1	0	0	2	1,867.80	1209	1225	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	GGIDNPAITSDQELDDKK	K	M	95.00%	4.28	0.344	0	1	1	0	2	1,995.89	1209	1226	TRUE	
SNU216_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	HRGSEEDPLLSPVETWK	R	G	95.00%	4.13	0.389	0	0	1	0	2	2,059.95	1192	1208	TRUE	
SNU216_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	RTHSDASDDEAFTTSK	R	T	95.00%	3.75	0.447	0	1	2	0	2	1,847.74	1170	1185	TRUE	
SNU216_PC1_03	Rho GTPase activating protein 5 isoform a	IPI00646885	172,464.90	100.00%	5	7	8	0.05%	3.40%	THSDASDDEAFTTSK	R	T	95.00%	2.58	0.477	0	1	0	0	2	1,771.61	1171	1185	TRUE	
SNU216_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	2.84	0.35	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	4.73	0.503	0	2	1	0	2	2,129.88	78	96	TRUE	
SNU216_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	2.84	0.308	0	1	0	0	2	1,771.73	77	91	TRUE	
SNU216_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	3.29	0.241	0	0	1	0	2	2,257.97	77	96	TRUE	
SNU216_PC1_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	6	7	0.04%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.84	0.462	0	0	1	0	2	3,334.52	287	318	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	2	2	3	0.02%	0.58%	KMSQPGSPSPK	K	T	95.00%	2.73	0.319	0	1	0	0	2	1,303.52	1557	1567	TRUE	
SNU216_PC1_03	Isoform 1 of Chromodomain helicase-DNA-bindir	IPI00000846,IPI00455210	220,837.90	100.00%	2	2	3	0.02%	0.58%	MSQPGSPSPK	K	T	95.00%	1.81	0.322	0	2	0	0	2	1,175.42	1558	1567	TRUE	
SNU216_PC1_03	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	3	3	3	0.02%	5.52%	EPVEETTKSPSDVNISAQPALSNFISQLEPEV	R	I	93.90%	6.12	0.0233	0	0	1	0	2	4,224.06	748	785	TRUE	
SNU216_PC1_03	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	3	3	3	0.02%	5.52%	LIPITGGNARSPEDQLGK	K	H	95.00%	3.14	0.402	0	1	0	0	2	1,945.97	521	538	TRUE	
SNU216_PC1_03	Retinoblastoma-associated protein RAP140	IPI00038698	139,957.70	100.00%	3	3	3	0.02%	5.52%	SVGGDSDTEDMR	K	S	95.00%	1.82	0.377	0	1	0	0	2	1,348.47	298	309	TRUE	
SNU216_PC1_03	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.80%	1	1	1	0.01%	1.60%	APSPPLSQVFQTR	R	A	95.00%	2.27	0.219	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.80%	2	2	2	0.01%	2.64%	HLYISSSNPDLITR	R	R	95.00%	2.74	0.372	0	1	0	0	2	1,695.81	584	597	TRUE	
SNU216_PC1_03	Tyrosine-protein phosphatase non-receptor type	IPI00004388	133,288.70	99.80%	2	2	2	0.01%	2.64%	RNSIEVAGLSHGLEGLR	K	L	95.00%	3.8	0.412	0	0	1	0	2	1,887.94	635	651	TRUE	
SNU216_PC1_03	Talin-1	IPI00298994	271,170.80	100.00%	3	3	3	0.02%	0.94%	DHFGLEGDEESTMLEDSVSPK	K	K	95.00%	3.91	0.305	0	0	1	0	2	2,401.97	407	427	TRUE	
SNU216_PC1_03	Talin-1	IPI00298994	271,170.80	100.00%	3	3	3	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPK	K	K	95.00%	6.2	0.459	0	0	1	0	2	2,617.10	405	427	TRUE	
SNU216_PC1_03	Talin-1	IPI00298994	271,170.80	100.00%	3	3	3	0.02%	0.94%	SKDHFGLEGDEESTMLEDSVSPKK	K	S	95.00%	4.37	0.106	0	0	0	1	2	2,745.20	405	428	TRUE	
SNU216_PC1_03	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.40%	2	2	2	0.01%	2.07%	GKASPFEEDQNR	K	D	88.20%	1.91	0.222	0	1	0	0	2	1,457.61	133	144	TRUE	
SNU216_PC1_03	Isoform 3 of Pumilio homolog 2	IPI00022184,IPI00398749	114,004.80	99.40%	2	2	2	0.01%	2.07%	QASPTEVVER	R	L	95.00%	2.39	0.188	0	1	0	0	2	1,195.54	180	189	TRUE	
SNU216_PC1_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	8.06%	AIGSTSKPQESPK	R	G	95.00%	2.1	0.266	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC1_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	8.06%	KTPSKPPAQLSPSVPK	K	R	92.70%	2.22	0.231	0	0	1	0	2	1,741.93	256	271	TRUE	
SNU216_PC1_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	8.06%	TKPTQAAGPSSPQKPPTPEETK	K	A	94.70%	2.73	0.19	0	0	1	0	2	2,437.11	437	458	TRUE	
SNU216_PC1_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	2	3	3	0.02%	12.50%	ENVEYIEREESDGEYDEFGR	R	K	81.60%	2.68	0.142	0	0	1	0	2	2,545.00	110	129	TRUE	
SNU216_PC1_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	2	3	3	0.02%	12.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.66	0.652	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC1_03	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	4	4	4	0.02%	5.65%	ANEAGGQVGPEAPRPPETSPEMR	R	S	95.00%	3.46	0.207	0	0	1	0	2	2,457.09	267	289	TRUE	
SNU216_PC1_03	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	4	4	4	0.02%	5.65%	KGSDALRPPVPQGEDEVPK	R	A	95.00%	4.06	0.207	0	0	1	0	2	2,099.02	308	326	TRUE	
SNU216_PC1_03	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	4	4	4	0.02%	5.65%	LRRPSVNGEPGSVPPPR	K	A	95.00%	3.04	0.265	0	0	1	0	2	1,894.96	1253	1269	TRUE	
SNU216_PC1_03	PREDICTED: EH domain binding protein 1-like 1 is	IPI00296421,IPI00744900	161,851.80	100.00%	4	4	4	0.02%	5.65%	PSDVGNLDDFAESDEDEAHGPGAPEAR	K	A	95.00%	4.79	0.55	0	0	1	0	2	2,877.15	179	205	TRUE	
SNU216_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	3	4	4	0.02%	1.72%	HLQQGSESPMMIGELR	R	S	95.00%	3.26	0.33	0	0	1	0	2	1,892.84	2597	2612	TRUE	
SNU216_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	3	4	4	0.02%	1.72%	TISAQDTLAYATALLNEK	R	E	95.00%	3.27	0.411	0	0	1	0	2	2,002.97	2559	2576	TRUE	
SNU216_PC1_03	Ubiquitin carboxyl-terminal hydrolase 24	IPI00398505	294,371.70	100.00%	3	4	4	0.02%	1.72%	VSDQNSPVLPK	R	K	95.00%	2.84	0.358	0	1	0	0	2	1,263.60	2042	2052	TRUE	
SNU216_PC1_03	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	100.00%	3	3	3	0.02%	4.65%	RSSDPVPGPPADTQPSASHPGGQSLK	R	L	95.00%	5.21	0.504	0	0	1	0	2	2,650.23	139	164	TRUE	
SNU216_PC1_03	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	100.00%	3	3	3	0.02%	4.65%	SESPSKDFGPTLGLK	K	K	95.00%	2.17	0.314	0	1	0	0	2	1,642.77	728	742	TRUE	
SNU216_PC1_03	Isoform 1 of Amyotrophic lateral sclerosis 2 chror	IPI00043978,IPI00075719,IP	132,497.70	100.00%	3	3	3	0.02%	4.65%	SSSLESLQTAVAEVR	K	K	95.00%	3.18	0.467	0	1	0	0	2	1,656.78	744	758	TRUE	
SNU216_PC1_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.66%	GDDDEESDEEAVKK	K	T	95.00%	3.22	0.282	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216_PC1_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	2	2	2	0.01%	3.66%	IKWDEQTSNTKGDDDEESDEEAVK	R	K	95.00%	4.25	0.346	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	KLGAGEGGEASVSPEK	K	T	95.00%	3.19	0.222	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.04	0.296	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	KSAEPSANTTLVSETEEEGSVPAFGAAAK	R	P	95.00%	3.86	0.397	0	0	1	0	2	2,958.36	159	187	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	LDSSPSVSSTLAAK	K	D	95.00%	2.17	0.42	0	1	0	0	2	1,442.68	1148	1161	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	LGAGEGGEASVSPEK	K	T	95.00%	3	0.457	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.6	0.206	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	QEAKPQQAAGMLSPK	K	T	95.00%	2.69	0.24	0	1	0	0	2	1,663.79	1168	1182	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	SLGNILQAKPTSSPAK	K	G	95.00%	3.95	0.449	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.08	0.392	0	0	1	1	2	2,199.15	494	514	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	TSQVGAASAPAKESPR	K	K	95.00%	3.42	0.484	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	TSQVGAASAPAKESPRK	K	G	95.00%	3.69	0.403	0	1	1	0	2	1,764.86	291	307	TRUE	
SNU216_PC1_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	12	17	17	0.11%	9.21%	TVANLLSGKSPR	K	K	95.00%	3.19	0.3	0	1	0	0	2	1,322.68	147	158	TRUE	
SNU216_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	8	0.05%	4.69%	GEEGSDDDETENGPKPK	K	K	95.00%	3.93	0.467	0	2	0	0	2	1,883.72	988	1004	TRUE	
SNU216_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	8	0.05%	4.69%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.14	0.424	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	8	0.05%	4.69%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.4	0.497	0	0	1	0	2	2,436.01	935	955	TRUE	
SNU216_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	8	0.05%	4.69%	KGSGSEQEGEDEEGGER	R	K	95.00%	3.66	0.613	0	2	0	0	2	1,939.66	961	977	TRUE	
SNU216_PC1_03	136 kDa protein	IPI00005625	135,683.90	100.00%	5	6	8	0.05%	4.69%	RKGSGSEQEGEDEEGGER	R	K	95.00%	2.84	0.303	0	1	1	0	2	2,095.76	960	977	TRUE	
SNU216_PC1_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	2	2	0.01%	5.82%	EPTPSIASDISLPIATQELR	K	Q	95.00%	3.12	0.474	0	1	0	0	2	2,218.10	723	742	TRUE	
SNU216_PC1_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	2	2	2	0.01%	5.82%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	5.5	0.074	0	0	1	0	2	3,133.36	660	691	TRUE	
SNU216_PC1_03	E1A-associated protein p300	IPI00020985	264,138.50	99.70%	2	3	3	0.02%	1.24%	STELKTEIKEEEDQPSTSATQSSPAPGQSK	K	K	94.60%	5.69	0.0403	0	0	1	0	2	3,270.49	1016	1045	TRUE	
SNU216_PC1_03	E1A-associated protein p300	IPI00020985	264,138.50	99.70%	2	3	3	0.02%	1.24%	TEIKEEEDQPSTSATQSSPAPGQSK	K	K	95.00%	6.08	0.0497	0	1	1	0	2	2,712.19	1021	1045	TRUE	
SNU216_PC1_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	2	2	0.01%	2.20%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	4.37	0.496	0	0	1	0	2	2,778.05	587	608	TRUE	
SNU216_PC1_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	2	2	2	0.01%	2.20%	STEDLSPQK	K	S	95.00%	2.03	0.329	0	1	0	0	2	1,084.46	852	860	TRUE	
SNU216_PC1_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.7	0.35	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC1_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	3.33	0.379	0	0	1	0	2	2,916.10	300	324	TRUE	
SNU216_PC1_03	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	5.32	0.502	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216_PC1_03	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	3.75	0.243	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216_PC1_03	hypothetical protein LOC168850	IPI00396098	75,236.80	100.00%	3	3	3	0.02%	7.38%	VKVEPADSVESSPPSITHSPQNELK	K	G	95.00%	5.57	0.434	0	0	1	0	2	2,755.32	408	432	TRUE	
SNU216_PC1_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	7.33%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	4.24	0.257	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216_PC1_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	7.33%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.95	0.512	0	1	0	0	2	2,238.86	44	63	TRUE	
SNU216_PC1_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	3	3	0.02%	7.33%	GLWSTDSAEEDKETK	R	R	95.00%	2.4	0.178	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216_PC1_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	3.66	0.286	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216_PC1_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	3.92	0.39	0	0	2	0	2	2,439.07	279	299	TRUE	
SNU216_PC1_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	3.81	0.39	0	0	1	0	2	2,467.13	346	368	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	4.35	0.236	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216_PC1_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	MEVDRSPGLPMSDLK	R	T	95.00%	2.41	0.216	0	1	0	0	2	1,754.79	614	628	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	AAVLSDSEDEEKASAK	K	K	95.00%	2.49	0.285	0	1	0	0	2	1,809.72	394	409	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	EAEDSDSDDNIKR	K	G	95.00%	2.26	0.337	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	GPASDSETEDASR	K	H	95.00%	1.93	0.354	0	1	0	0	2	1,481.48	310	322	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	HQASDSENEELPKPR	R	I	95.00%	2.42	0.203	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	HQASDSENEEPPKPR	R	M	95.00%	2.45	0.396	0	1	1	0	2	1,880.72	193	207	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	MDSDEDEKEGEEEK	K	V	95.00%	2.43	0.458	0	2	0	0	2	1,765.60	375	388	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	NQASDSENEELPKPR	R	V	95.00%	2.49	0.396	0	1	0	0	2	1,873.74	284	298	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	QKMDSDEDEKEGEEEK	K	V	95.00%	2.45	0.327	0	0	1	0	2	2,021.75	373	388	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	TIASDSEEEAGKELSDK	K	K	95.00%	2.07	0.352	0	1	0	0	2	1,968.77	435	451	TRUE	
SNU216_PC1_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	10	11	12	0.07%	14.80%	TIASDSEEEAGKELSDKK	K	N	95.00%	2.13	0.258	0	1	0	0	2	2,096.87	435	452	TRUE	
SNU216_PC1_03	septin 9	IPI00748715	63,634.10	99.80%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	95.00%	1.94	0.367	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216_PC1_03	septin 9	IPI00748715	63,634.10	99.80%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.46	0.493	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC1_03	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	99.80%	1	2	2	0.01%	2.28%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	5.32	0.379	0	0	1	1	2	3,153.39	1111	1139	TRUE	
SNU216_PC1_03	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENR	R	S	95.00%	5.27	0.515	0	0	1	0	2	3,005.40	1141	1166	TRUE	
SNU216_PC1_03	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	LLHLLLDDMPVKPYSDGEGGIEDENRSVSGI	R	V	81.80%	5.81	0.0135	0	0	0	1	2	4,396.09	1141	1179	TRUE	
SNU216_PC1_03	Nuclear pore complex protein Nup205	IPI00472675	228,155.70	100.00%	3	3	3	0.02%	1.94%	SVSGFLHFDTATK	R	V	95.00%	2.5	0.39	0	1	0	0	2	1,489.67	1167	1179	TRUE	
SNU216_PC1_03	116 kDa U5 small nuclear ribonucleoprotein com	IPI00003519	109,438.10	100.00%	1	1	1	0.01%	1.34%	RVVYSAFLMATPR	R	L	95.00%	2.42	0.255	0	0	1	0	2	1,590.79	814	826	TRUE	
SNU216_PC1_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	3	0.02%	1.68%	AEDSDSEPEPEDNVR	K	L	95.00%	2.23	0.442	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC1_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	3	0.02%	1.68%	KAEDSDSEPEPEDNVR	R	L	95.00%	2.62	0.4	0	2	0	0	2	1,896.75	495	510	TRUE	
SNU216_PC1_03	U5 small nuclear ribonucleoprotein 200 kDa helic	IPI00420014	244,513.80	100.00%	1	2	4	0.02%	0.75%	EEASDDDMEGDEAVVR	R	C	95.00%	3.96	0.597	0	3	1	0	2	1,862.66	222	237	TRUE	
SNU216_PC1_03	Isoform 1 of Alsin	IPI00295004	183,668.60	99.80%	2	2	2	0.01%	2.23%	RLSLPGLLSQVSPR	R	L	95.00%	2.33	0.201	0	0	1	0	2	1,682.84	481	494	TRUE	
SNU216_PC1_03	Isoform 1 of Alsin	IPI00295004	183,668.60	99.80%	2	2	2	0.01%	2.23%	SESPEPGYVVTSSGLLLPVLLPR	R	L	95.00%	4.58	0.0018	0	1	0	0	2	2,490.29	1462	1484	TRUE	
SNU216_PC1_03	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	100.00%	2	2	3	0.02%	1.79%	GPSPSPVGSPASVAQSR	R	S	95.00%	3.26	0.318	0	2	0	0	2	1,660.77	694	710	TRUE	
SNU216_PC1_03	Isoform 2 of AT-rich interactive domain-containin	IPI00642705,IPI00643722	242,043.80	100.00%	2	2	3	0.02%	1.79%	SHHAPMSPGSSGGGGQPLAR	R	T	95.00%	3.25	0.345	0	0	1	0	2	1,967.85	357	376	TRUE	
SNU216_PC1_03	Isoform 1 of Eukaryotic translation initiation facto	IPI00163851,IPI00456685	186,842.60	100.00%	1	1	1	0.01%	1.52%	MPLVEQSPEDSGGQDYVETVIPSNR	K	L	95.00%	4.28	0.344	0	0	1	0	2	2,827.25	545	569	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	DSQSASGEERPPEADGK	R	K	95.00%	2.49	0.304	0	1	0	0	2	1,839.74	360	376	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	EGPEPPEEVPPPTTPPVPK	K	V	95.00%	3.46	0.453	0	1	1	0	2	2,073.98	597	615	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	GNSPNSEPPTPK	K	T	95.00%	2.37	0.34	0	1	0	0	2	1,304.55	378	389	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	GSETGSETHESDLAPSDK	R	E	95.00%	2.91	0.306	0	1	0	0	2	1,926.76	1105	1122	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	GSETGSETHESDLAPSDKEAPTPK	R	E	95.00%	3.83	0.423	0	0	1	0	2	2,550.09	1105	1128	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	KGNSPNSEPPTPK	K	T	95.00%	2.71	0.278	0	2	0	0	2	1,432.65	377	389	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	LAWVGDVFTATPAEPRPLTSPLR	K	Q	95.00%	3.6	0.358	0	0	1	0	2	2,574.31	789	811	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	LKFSDEEDGRDSDEEGAEGHR	K	D	93.30%	2.17	0.2	0	1	1	0	2	2,537.95	339	359	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	SEGSEYEEIPKR	R	R	95.00%	2.15	0.348	0	1	1	0	2	1,503.64	1089	1100	TRUE	IPI00643923,IPI00741537
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	SETPPVPPPPPYLASYPGFPENGAPGPPISR	R	F	95.00%	3.35	0.3	0	0	1	0	2	3,265.56	823	853	TRUE	
SNU216_PC1_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	11	14	15	0.09%	7.70%	TASETRSEGSEYEEIPK	R	R	88.20%	2.9	0.132	0	0	1	0	2	1,992.84	1083	1099	TRUE	
SNU216_PC1_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	3	0.02%	2.55%	AALDGGVASAASPESKPSPGTK	R	G	95.00%	3.31	0.303	0	0	1	0	2	2,077.98	64	85	TRUE	
SNU216_PC1_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	3	0.02%	2.55%	RGSQKSTDSPGADAELPESAAR	R	D	95.00%	3.69	0.425	0	0	1	0	2	2,469.97	14	35	TRUE	
SNU216_PC1_03	Absent in melanoma 1 protein	IPI00294840	188,677.20	100.00%	3	3	3	0.02%	2.55%	STDSPGADAELPESAAR	K	D	95.00%	3	0.527	0	1	0	0	2	1,753.73	19	35	TRUE	
SNU216_PC1_03	YTH domain containing 2	IPI00010200	160,265.80	100.00%	1	1	1	0.01%	1.12%	VDGIPNDSSDSEMEDK	R	T	95.00%	2.61	0.375	0	1	0	0	2	1,817.68	1082	1097	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	4	4	4	0.02%	2.11%	KLANDFPLDLSPVK	R	K	95.00%	3.47	0.453	0	1	0	0	2	1,636.83	678	691	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	4	4	4	0.02%	2.11%	NNSRVSPVPLSGAAAGTEQK	R	T	95.00%	3.26	0.31	0	0	1	0	2	2,062.99	2167	2186	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	4	4	4	0.02%	2.11%	VIIPSPPKDDSPQLSEELR	K	R	95.00%	3.59	0.454	0	0	1	0	2	2,200.09	1743	1761	TRUE	
SNU216_PC1_03	Hypothetical protein DKFZp686L2367	IPI00470461	284,629.80	100.00%	4	4	4	0.02%	2.11%	VSPVPLSGAAAGTEQK	R	T	95.00%	2.2	0.264	0	1	0	0	2	1,591.77	2171	2186	TRUE	
SNU216_PC1_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	1	1	1	0.01%	2.45%	SGAQASSTPLSPTR	R	I	91.60%	2.29	0.196	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216_PC1_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	2	2	0.01%	2.05%	RTSMGGTQQQFVEGVR	R	M	95.00%	3.74	0.377	0	0	1	0	2	1,860.84	550	565	TRUE	
SNU216_PC1_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	99.80%	2	2	2	0.01%	2.05%	TSMGGTQQQFVEGVR	R	M	95.00%	3.42	0.518	0	1	0	0	2	1,704.74	551	565	TRUE	
SNU216_PC1_03	HSPC121	IPI00008998	44,424.70	100.00%	1	2	6	0.04%	3.22%	WLDESDAEMELR	R	A	95.00%	3.19	0.326	1	5	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC1_03	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	5	5	0.03%	1.87%	KQSVFSAPSLSAGASAAEPLDR	R	S	95.00%	3.45	0.467	0	1	1	0	2	2,269.09	932	953	TRUE	
SNU216_PC1_03	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	5	5	0.03%	1.87%	SIQGVGHMMSTMVLSR	R	K	95.00%	3.99	0.487	0	1	1	0	2	1,813.82	916	931	TRUE	
SNU216_PC1_03	Inositol 1,4,5-trisphosphate receptor type 3	IPI00291607	304,041.80	100.00%	3	5	5	0.03%	1.87%	VASFSIPGSSSR	R	Y	95.00%	2.08	0.364	0	1	0	0	2	1,274.58	1830	1841	TRUE	
SNU216_PC1_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.3	0.537	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC1_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	4.62	0.568	0	1	0	0	2	2,778.97	238	262	TRUE	
SNU216_PC1_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	7.12	0.548	0	0	1	0	2	4,277.68	238	275	TRUE	
SNU216_PC1_03	palladin	IPI00292009	122,047.90	99.80%	2	2	2	0.01%	2.71%	GRSPRSPSGHPHVR	R	R	95.00%	3.28	0.434	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216_PC1_03	palladin	IPI00292009	122,047.90	99.80%	2	2	2	0.01%	2.71%	SRSRDSGDENEPIQER	R	F	95.00%	2.21	0.32	0	1	0	0	2	2,114.76	892	907	TRUE	
SNU216_PC1_03	ATP-binding cassette, sub-family A, member 2 isc	IPI00307592,IPI00414303	269,952.70	99.80%	2	3	3	0.02%	1.64%	ALVADEPEDLDTEDEGLISFEEER	R	A	95.00%	4.66	0.521	0	1	1	0	2	2,801.19	2402	2425	TRUE	
SNU216_PC1_03	ATP-binding cassette, sub-family A, member 2 isc	IPI00307592,IPI00414303	269,952.70	99.80%	2	3	3	0.02%	1.64%	VSEEDQSLENSEADVK	K	E	95.00%	2.85	0.431	0	1	0	0	2	1,938.73	1322	1337	TRUE	
SNU216_PC1_03	Carboxypeptidase D precursor	IPI00027078	152,917.40	100.00%	2	2	3	0.02%	1.67%	SLLSHEFQDETDTEEETLYSSK	K	-	95.00%	3.85	0.378	0	0	1	0	2	2,748.09	1358	1379	TRUE	
SNU216_PC1_03	Carboxypeptidase D precursor	IPI00027078	152,917.40	100.00%	2	2	3	0.02%	1.67%	SLLSHEFQDETDTEEETLYSSKH	K	-	95.00%	4.32	0.199	0	0	1	0	2	2,805.18	1358	1380	TRUE	
SNU216_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	7	7	0.04%	5.30%	GSVILDSGHLSTASSSDDLKGEEGSFR	R	G	92.50%	5.33	0.0446	0	0	1	0	2	2,831.27	88	114	TRUE	
SNU216_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	7	7	0.04%	5.30%	NKLEGDSDVDSELEDR	K	V	95.00%	2.83	0.327	0	1	0	0	2	1,980.75	1967	1982	TRUE	
SNU216_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	7	7	0.04%	5.30%	NKLEGDSDVDSELEDRVDGVK	K	S	95.00%	4.55	0.32	0	0	1	0	2	2,399.06	1967	1987	TRUE	
SNU216_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	7	7	0.04%	5.30%	SLAPDRSDDEHDPLDNTSRPR	K	Y	95.00%	3.83	0.277	0	0	1	1	2	2,473.07	2017	2037	TRUE	
SNU216_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	7	7	0.04%	5.30%	SRDESASETSTPSEHSAAPSPQVEVR	R	T	95.00%	3.42	0.372	0	0	0	1	2	2,821.23	145	170	TRUE	
SNU216_PC1_03	Isoform 1 of Myosin-18A	IPI00017030	233,551.30	100.00%	6	7	7	0.04%	5.30%	YSHSYLSDSDTEAK	R	L	92.00%	2.33	0.199	0	1	0	0	2	1,682.66	2038	2051	TRUE	
SNU216_PC1_03	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	100.00%	2	2	3	0.02%	4.78%	HADNSSDTEMEDMIAEETLEEMDSELLK	K	C	95.00%	4.94	0.52	0	0	1	0	2	3,292.31	757	784	TRUE	
SNU216_PC1_03	Isoform 1 of Polyhomeotic-like protein 3	IPI00302149,IPI00658100	106,160.10	100.00%	2	2	3	0.02%	4.78%	MDRTPPPPTLSPAAITVGR	R	G	95.00%	4.18	0.371	0	0	2	0	2	2,136.99	606	624	TRUE	
SNU216_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	8	0.05%	3.52%	KNSLISSLEEEVSILNR	R	Q	95.00%	4.02	0.438	0	1	1	0	2	2,011.01	1223	1239	TRUE	
SNU216_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	8	0.05%	3.52%	LGSPDYGNSALLSLPGYRPTTR	R	S	95.00%	3.04	0.327	0	0	1	0	2	2,415.17	1860	1881	TRUE	
SNU216_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	8	0.05%	3.52%	RVSLEPHQGPGTPESK	K	K	95.00%	3.59	0.493	0	0	2	0	2	1,798.85	1989	2004	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	4	6	8	0.05%	3.52%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.18	0.505	0	2	1	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC1_03	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	2.42	0.368	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216_PC1_03	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	2.84	0.386	0	0	1	0	2	1,915.77	775	790	TRUE	
SNU216_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	1	1	1	0.01%	0.96%	AFLAELEQNSPK	K	I	95.00%	3.46	0.468	0	1	0	0	2	1,426.66	2947	2958	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	1	1	1	0.01%	0.96%	DEVQTSPPKVVEIGHQR	R	Q	95.00%	2.84	0.248	0	0	1	0	2	2,062.96	436	452	TRUE	
SNU216_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	1	1	1	0.01%	0.96%	QGSFSEDVISHK	R	G	95.00%	3.1	0.41	0	1	1	0	2	1,413.60	2360	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	1	1	1	0.01%	0.96%	RQGSFSEDVISHK	K	G	95.00%	2.49	0.207	0	0	1	0	2	1,569.71	2359	2371	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	1	1	1	0.01%	0.96%	SMDAMSSPTK	K	T	95.00%	2.57	0.461	0	1	0	0	2	1,134.42	2925	2934	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_03	Microtubule-actin crosslinking factor 1, isoform 4	IPI00432363,IPI00478739,IP	670,150.10	100.00%	1	1	1	0.01%	0.96%	SMDAMSSPTKTETVK	K	A	95.00%	3.95	0.0599	0	1	0	0	2	1,692.72	2925	2939	FALSE	IPI00256861,IPI00550385,IPI00513991
SNU216_PC1_03	Cleavage and polyadenylation specificity factor, 1	IPI00026219	160,885.90	100.00%	1	2	3	0.02%	2.70%	SGPEAEGLGSETSPTVDDEEEMLYGDSGSLF	R	R	95.00%	4.96	0.272	0	0	2	1	2	4,169.75	725	763	TRUE	
SNU216_PC1_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	99.80%	1	1	1	0.01%	2.95%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4	0.36	0	0	1	0	2	2,204.91	309	328	TRUE	
SNU216_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	AGAASPLNSPLSSAVPSLGK	R	E	95.00%	2.88	0.41	0	1	0	0	2	1,983.92	2451	2470	TRUE	
SNU216_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	GAANASGSSPDAPAK	K	D	95.00%	2.71	0.361	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	KGAANASGSSPDAPAK	R	D	95.00%	3.29	0.362	0	1	0	0	2	1,508.67	2420	2435	TRUE	
SNU216_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	LLVRPTSSETPSAAELVSAIEELVK	R	S	95.00%	2.46	0.217	0	0	1	1	2	2,719.42	1894	1918	TRUE	
SNU216_PC1_03	triple functional domain	IPI00657953	346,902.60	100.00%	5	7	8	0.05%	2.36%	SSMEMEGIFNHK	R	D	95.00%	3.45	0.367	0	1	2	0	2	1,489.59	1723	1734	TRUE	
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.92	0.506	0	1	1	0	2	2,438.12	4251	4273	FALSE	IPI00186711,IPI00398779
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	AQLEPVASPAK	K	K	95.00%	2.2	0.273	1	0	0	0	2	1,190.58	1318	1328	FALSE	IPI00186711,IPI00398779
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	ARSDEGQLSPATR	R	G	95.00%	3.33	0.408	0	0	1	0	2	1,467.66	602	614	FALSE	IPI00186711,IPI00398779
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	GYYSPYSVSGSGSTAGSR	K	T	95.00%	3.54	0.057	0	3	0	0	2	1,862.76	4500	4517	FALSE	IPI00186711,IPI00398779
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	RGSFDATGSGFSMTFSSSSYSSSGYGR	R	R	95.00%	5.52	0.134	0	1	3	0	2	2,853.15	4530	4556	FALSE	IPI00186711,IPI00398779
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	SDEGQLSPATR	R	G	95.00%	2.23	0.271	0	1	0	0	2	1,240.52	604	614	FALSE	IPI00186711,IPI00398779
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	SGGGAGSNGSVLDPAER	R	A	95.00%	2.82	0.366	0	1	0	0	2	1,610.68	42	58	TRUE	
SNU216_PC1_03	plectin 1 isoform 1	IPI00398002	518,467.20	98.90%	1	1	1	0.01%	2.78%	SSSVGSSSSYPISPAVSR	R	T	95.00%	3.15	0.326	0	3	0	0	2	1,834.82	4274	4291	FALSE	IPI00186711,IPI00398779
SNU216_PC1_03	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	2	3	0.02%	5.69%	RPWRPEEAVEDPDEEDEDNTSEAENGFSLE	K	L	95.00%	4.15	0.323	0	0	0	1	2	4,068.73	14	47	TRUE	
SNU216_PC1_03	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	2	3	0.02%	5.69%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	4.39	0.548	0	0	2	0	2	3,148.14	621	646	TRUE	
SNU216_PC1_03	PDZ domain-containing protein 8	IPI00168698	128,567.00	98.80%	1	1	1	0.01%	1.73%	RVPTTLSIKPLGAISPVLNR	K	K	95.00%	3.29	0.339	0	0	1	0	2	2,212.26	524	543	TRUE	
SNU216_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.71%	DFDSSEDEKHSK	K	K	95.00%	1.77	0.408	0	1	0	0	2	1,583.53	778	789	TRUE	
SNU216_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.71%	ETFSSAEGTVDKDTTIMELR	R	D	95.00%	4.23	0.417	0	0	1	0	2	2,310.02	818	837	TRUE	
SNU216_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.71%	KKDELSDYAEK	K	S	95.00%	2.7	0.249	0	1	0	0	2	1,405.62	988	998	TRUE	
SNU216_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.71%	LTVSDGESGEEK	K	K	91.10%	1.85	0.256	0	1	0	0	2	1,410.51	1277	1288	TRUE	
SNU216_PC1_03	Isoform 6 of Transcriptional regulator ATRX	IPI00413734	274,989.90	100.00%	5	5	5	0.03%	3.71%	YVESDDEKPLDDETVNEDASNENSENDITV	K	D	95.00%	6.15	0.031	0	0	1	0	2	4,050.68	89	123	TRUE	
SNU216_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	6	6	0.04%	5.44%	ASALLFSSDEEDQWNIPASQTHLASDSR	K	S	95.00%	6.04	0.508	0	0	1	0	2	3,155.40	507	534	TRUE	
SNU216_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	6	6	0.04%	5.44%	ERRTPSDDEEDNLFAPPK	K	L	95.00%	2.66	0.396	0	0	1	0	2	2,275.93	222	239	TRUE	
SNU216_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	6	6	0.04%	5.44%	GLFSDEEDSEDLFSSQSASK	K	L	95.00%	4.01	0.52	0	1	0	0	2	2,257.90	430	449	TRUE	
SNU216_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	6	6	0.04%	5.44%	RTPSDDEEDNLFAPPK	R	L	95.00%	3.22	0.325	0	1	1	0	2	1,910.82	224	239	TRUE	
SNU216_PC1_03	LOC387680 protein (Fragment)	IPI00718792	132,578.30	100.00%	5	6	6	0.04%	5.44%	TPSDDEEDNLFAPPK	R	L	95.00%	2.89	0.434	0	1	0	0	2	1,754.72	225	239	TRUE	
SNU216_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	5	5	6	0.04%	5.74%	AQQELVPPQQQASPPQLPK	R	A	95.00%	3.48	0.233	0	0	1	0	2	2,164.08	879	897	TRUE	
SNU216_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	5	5	6	0.04%	5.74%	GSVSQPSTPSPPKPTGIFQTSANSSFEPVK	R	S	81.70%	4.87	0.0369	0	0	1	0	2	3,219.46	408	437	TRUE	
SNU216_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	5	5	6	0.04%	5.74%	LLPSAPQTLPDGPLASPAR	R	V	95.00%	3.23	0.551	0	1	0	0	2	1,981.02	1771	1789	TRUE	
SNU216_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	5	5	6	0.04%	5.74%	QIDSSPVGGETDETTVSQNYR	K	G	95.00%	4.79	0.0042	0	1	0	0	2	2,363.00	387	407	TRUE	
SNU216_PC1_03	Isoform 3 of Protein KIAA0310	IPI00166487,IPI00219314,IP	233,515.30	100.00%	5	5	6	0.04%	5.74%	SNFSSGPGFPEYGYPADTVWPAMEQVSSRI	R	F	95.00%	6.53	0.0193	0	0	2	0	2	3,882.70	1232	1266	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGR	K	R	95.00%	3.33	0.42	0	0	1	0	2	1,631.76	1881	1894	TRUE	
SNU216_PC1_03	Thyroid receptor-interacting protein 11	IPI00003515	227,643.50	100.00%	2	2	2	0.01%	0.76%	LSVHDMKPLDSPGRR	K	K	95.00%	2.14	0.25	0	0	0	1	2	1,787.86	1881	1895	TRUE	
SNU216_PC1_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.40%	2	2	2	0.01%	8.48%	RPDPDSDEDEDYER	R	E	95.00%	4.14	0.601	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC1_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.40%	2	2	2	0.01%	8.48%	SPTGPSNSFLANMGGTVAHK	R	I	88.80%	3.19	0.169	0	0	1	0	2	2,052.92	129	148	TRUE	
SNU216_PC1_03	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	3	6	9	0.06%	2.37%	KMSDDEDDDEEEYGKEEHEK	K	E	95.00%	6.78	0.59	0	1	2	2	2	2,536.92	123	142	TRUE	
SNU216_PC1_03	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	3	6	9	0.06%	2.37%	MSDDEDDDEEEYGKEEHEK	K	E	95.00%	5.17	0.597	0	1	2	0	2	2,408.82	124	142	TRUE	
SNU216_PC1_03	Isoform 1 of Transcription elongation factor SPT6	IPI00456681	199,275.80	100.00%	3	6	9	0.06%	2.37%	TRTPASINATPANINLADLTR	R	A	95.00%	2.81	0.391	0	1	0	0	2	2,370.12	1532	1552	TRUE	
SNU216_PC1_03	132 kDa protein	IPI00002054	131,684.30	99.80%	2	3	3	0.02%	3.26%	HGLQLGAQSPGR	R	G	95.00%	2.09	0.316	0	1	0	0	2	1,300.62	1070	1081	TRUE	
SNU216_PC1_03	132 kDa protein	IPI00002054	131,684.30	99.80%	2	3	3	0.02%	3.26%	TPLDLFAHFGPEPGDHSDPLPPSAPSPTR	K	E	95.00%	6.11	0.55	0	0	1	1	2	3,132.45	179	207	TRUE	
SNU216_PC1_03	golgi phosphoprotein 4	IPI00004962	81,877.50	99.70%	1	1	1	0.01%	4.31%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	4.19	0.448	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	5	5	0.03%	6.86%	ALMDEEDMDDVVDADEYLIPQQGFFSSPST	R	T	84.40%	5.19	0.0297	0	0	1	0	2	3,687.54	1000	1031	TRUE	
SNU216_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	5	5	0.03%	6.86%	ELVEPLTPSGEAPNQALLR	R	I	95.00%	3.66	0.459	0	1	1	0	2	2,114.05	687	705	TRUE	
SNU216_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	5	5	0.03%	6.86%	GSHQISLDNPDYQQDFFPK	K	E	93.80%	2.89	0.18	0	0	1	0	2	2,316.00	1161	1179	TRUE	
SNU216_PC1_03	Isoform 1 of Epidermal growth factor receptor pr	IPI00018274	134,279.20	100.00%	4	5	5	0.03%	6.86%	MHLPSPTDSNFYR	R	A	95.00%	2.22	0.386	0	1	0	0	2	1,644.69	987	999	TRUE	
SNU216_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	6	0.04%	4.84%	ELPPAAAIGATSLVAAPHSSSSSPSK	R	D	95.00%	3.87	0.249	0	0	1	0	2	2,513.23	767	792	TRUE	
SNU216_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	6	0.04%	4.84%	ELPPAAAIGATSLVAAPHSSSSSPSKDSSR	R	G	84.00%	5.63	0.0109	0	0	0	1	2	2,958.42	767	796	TRUE	
SNU216_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	6	0.04%	4.84%	EVSSRPSTPGLSVVSGISATSEDIPNKIEDLR	R	S	88.60%	6.48	0.0158	0	0	2	1	2	3,420.69	594	625	TRUE	
SNU216_PC1_03	GTPase activating protein and VPS9 domains 1	IPI00292753,IPI00742770	141,092.60	100.00%	4	5	6	0.04%	4.84%	RPMSDPSWNR	R	R	95.00%	1.99	0.273	0	1	0	0	2	1,325.55	750	759	TRUE	
SNU216_PC1_03	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	4	4	5	0.03%	4.56%	GSTYSPTSPGYSPTSPTYSLTSPAISPDDSDEI	K	-	95.00%	3.24	0.234	0	0	1	0	2	3,587.47	1939	1972	TRUE	
SNU216_PC1_03	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	4	4	5	0.03%	4.56%	YSPTSPTYSPTSPVYTPTSPK	K	Y	95.00%	4.16	0.0073	0	2	0	0	2	2,338.05	1890	1910	TRUE	
SNU216_PC1_03	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	4	4	5	0.03%	4.56%	YSPTSPTYSPTTPK	K	Y	93.20%	3.49	0.0507	0	1	0	0	2	1,606.70	1876	1889	TRUE	
SNU216_PC1_03	DNA-directed RNA polymerase II largest subunit	IPI00031627	217,436.40	100.00%	4	4	5	0.03%	4.56%	YTPTSPSYSPSSPEYTPTSPK	K	Y	94.50%	3.67	0.0325	0	1	0	0	2	2,354.01	1841	1861	TRUE	
SNU216_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	5	5	6	0.04%	5.66%	FHSPSTTWSPNK	R	D	95.00%	2.8	0.344	0	1	0	0	2	1,468.63	479	490	TRUE	
SNU216_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	5	5	6	0.04%	5.66%	FHSPSTTWSPNKDTPQEK	R	K	95.00%	2.59	0.206	0	0	2	0	2	2,166.95	479	496	TRUE	
SNU216_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	5	5	6	0.04%	5.66%	SRFHSPSTTWSPNKDTPQEK	R	K	95.00%	3.69	0.345	0	0	0	1	2	2,410.08	477	496	TRUE	
SNU216_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	5	5	6	0.04%	5.66%	SSSNDSVDEETAESDTSPVLEK	K	E	95.00%	4.06	0.0072	0	1	0	0	2	2,405.97	85	106	TRUE	
SNU216_PC1_03	SFRS2-interacting protein	IPI00181359,IPI00746412	128,875.10	100.00%	5	5	6	0.04%	5.66%	TEELIESPKLESSEGEIIQTVDR	K	Q	95.00%	4.72	0.439	0	0	1	0	2	2,682.28	287	309	TRUE	
SNU216_PC1_03	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	100.00%	2	2	2	0.01%	1.83%	DASDGEDEKPPLPPR	R	S	95.00%	2.43	0.282	0	1	0	0	2	1,702.73	130	144	TRUE	
SNU216_PC1_03	inositol polyphosphate phosphatase-like 1	IPI00016932	138,588.30	100.00%	2	2	2	0.01%	1.83%	EPDPPDDRDASDGEDEKPPLPPR	R	S	95.00%	2.82	0.26	0	0	1	0	2	2,624.12	122	144	TRUE	
SNU216_PC1_03	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	5	0.03%	5.42%	EIPEDVDMEEEKESEDSDEENDFTEK	K	V	95.00%	2.96	0.316	0	0	3	0	2	3,277.17	766	791	TRUE	
SNU216_PC1_03	WD-repeat protein 75	IPI00217240	94,501.00	99.80%	2	3	5	0.03%	5.42%	VQDTSNTGLGEDIIHQLSK	K	S	95.00%	5.16	0.485	0	1	1	0	2	2,135.00	792	810	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	3.00%	KSAVSPSTFNTSIPTNAVSVVSSVDSAQASD	K	S	95.00%	6.82	0.0437	0	0	1	0	2	3,991.82	1732	1771	TRUE	
SNU216_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	3.00%	SAVSPSTFNTSIPTNAVSVVSSVDSAQASDN	K	S	95.00%	4.47	0.367	0	0	1	0	2	3,863.73	1733	1771	TRUE	
SNU216_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	3.00%	VEGSPTEEANLPTELQDNSLSPAASEAGEK	K	L	95.00%	4.05	0.381	0	0	1	0	2	3,150.40	1115	1144	TRUE	
SNU216_PC1_03	Lipopolysaccharide-responsive and beige-like anc	IPI00002255	319,162.50	100.00%	4	4	4	0.02%	3.00%	VPSPPPTGDDGGGGGR	R	E	95.00%	2.13	0.23	0	1	0	0	2	1,502.63	8	23	TRUE	
SNU216_PC1_03	Isoform 1 of Protein KIAA0195	IPI00431262,IPI00431263	154,928.50	99.60%	2	2	2	0.01%	3.23%	GIKDDEHIVLEPGDLFPPFSPPPSPR	R	G	95.00%	4.34	0.463	0	0	1	0	2	3,016.39	202	227	TRUE	
SNU216_PC1_03	Isoform 1 of Protein KIAA0195	IPI00431262,IPI00431263	154,928.50	99.60%	2	2	2	0.01%	3.23%	VEPPHSSHEDLTDGLSTR	K	S	91.30%	2.91	0.142	0	0	1	0	2	2,056.90	445	462	TRUE	
SNU216_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	6	6	0.04%	2.95%	AFMESPKQILDSAASLTGSK	K	R	95.00%	2.74	0.425	0	0	1	0	2	2,161.02	1675	1694	TRUE	
SNU216_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	6	6	0.04%	2.95%	LTQTSGQSTHTHKEPASGDEGIK	R	V	95.00%	3.07	0.185	0	0	0	1	2	2,489.13	2622	2644	TRUE	
SNU216_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	6	6	0.04%	2.95%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	4.3	0.47	0	0	1	0	2	2,287.98	296	317	TRUE	
SNU216_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	6	6	0.04%	2.95%	TPVQYSQQQNSPQK	K	H	95.00%	3.16	0.323	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC1_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	5	6	6	0.04%	2.95%	TSGETTQTHTEPTGDSK	R	S	91.90%	2.19	0.269	0	1	1	0	2	1,856.75	2504	2520	TRUE	
SNU216_PC1_03	Isoform 1 of Chromosome-associated kinesin KIF4	IPI00178150	139,883.80	99.80%	1	1	1	0.01%	0.81%	NQSLVEENEK	K	L	95.00%	2.42	0.314	0	1	0	0	2	1,269.54	392	401	TRUE	
SNU216_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	201,569.30	100.00%	5	6	6	0.04%	3.68%	KVTGTEGSSSTLVDYTSTSSTGGSPVRK	R	S	95.00%	7.55	0.0861	0	0	1	0	2	2,869.35	1254	1281	TRUE	
SNU216_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	201,569.30	100.00%	5	6	6	0.04%	3.68%	LEVTEIVKPSPK	K	R	95.00%	3.41	0.362	0	0	1	1	2	1,419.75	1170	1181	TRUE	
SNU216_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	201,569.30	100.00%	5	6	6	0.04%	3.68%	NLQPLMRSPISR	R	Q	95.00%	2.63	0.18	0	1	0	0	2	1,491.75	353	364	TRUE	
SNU216_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	201,569.30	100.00%	5	6	6	0.04%	3.68%	VTGTEGSSSTLVDYTSTSSTGGSPVR	K	K	95.00%	4.09	0.0138	0	1	0	0	2	2,613.16	1255	1280	TRUE	
SNU216_PC1_03	Isoform 1 of Retinoblastoma-binding protein 6	IPI00337315,IPI00376283,IP	201,569.30	100.00%	5	6	6	0.04%	3.68%	WDKDDFESEEEDVK	K	S	95.00%	2.84	0.302	0	0	1	0	2	1,850.70	1321	1334	TRUE	
SNU216_PC1_03	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	DQHLNNSSSSPQR	R	S	95.00%	2.44	0.237	0	1	0	0	2	1,549.64	423	435	TRUE	
SNU216_PC1_03	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	ILEDHGSPAGEIDDEDKDKDETETVK	R	Q	95.00%	6.48	0.584	0	0	1	1	2	2,965.28	1724	1749	TRUE	
SNU216_PC1_03	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	KDEETEESEYDSEHENSEPVTNIR	R	N	92.70%	3.37	0.132	0	0	1	0	2	2,946.18	527	550	TRUE	
SNU216_PC1_03	Pericentriol material 1	IPI00006213	228,705.30	100.00%	4	5	5	0.03%	3.85%	VTNDISPESSPGVGR	R	R	95.00%	3.21	0.403	0	1	0	0	2	1,594.71	60	74	TRUE	
SNU216_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	10	10	0.06%	5.20%	GHKHEDGTQSDSEDPLAK	K	A	95.00%	3.96	0.352	0	1	1	1	2	2,030.85	281	298	TRUE	
SNU216_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	10	10	0.06%	5.20%	HEDGTQSDSEDPLAK	K	A	95.00%	3.19	0.459	0	1	1	0	2	1,708.67	284	298	TRUE	
SNU216_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	10	10	0.06%	5.20%	LGDASDTEAADGER	R	G	95.00%	2.43	0.398	0	1	0	0	2	1,486.57	1061	1074	TRUE	
SNU216_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	10	10	0.06%	5.20%	MVIQLRPGRSPEPDGPAPAFLR	R	Q	95.00%	2.83	0.345	0	0	1	1	2	2,484.26	774	795	TRUE	
SNU216_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	10	10	0.06%	5.20%	RRSPQEGPTWSR	R	G	95.00%	2.7	0.297	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216_PC1_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	6	10	10	0.06%	5.20%	SQSFTHSPSGDPK	R	A	89.10%	1.99	0.198	0	1	0	0	2	1,454.59	349	361	TRUE	
SNU216_PC1_03	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.50%	2	2	3	0.02%	2.28%	LPNTYPNSSSPGPGGLGGSVHYATMAR	R	S	90.70%	6.49	0.0007	0	0	1	0	2	2,768.25	855	881	TRUE	
SNU216_PC1_03	dedicator of cytokinesis 7	IPI00513791	239,427.70	99.50%	2	2	3	0.02%	2.28%	SLSNSNPDISGTPTSPDDEVR	R	S	95.00%	5.03	0	0	2	0	0	2	2,267.97	896	916	TRUE	
SNU216_PC1_03	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	100.00%	3	3	3	0.02%	3.05%	AVPVESPVQKV	K	-	91.20%	1.92	0.268	0	1	0	0	2	1,232.63	422	432	TRUE	
SNU216_PC1_03	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	100.00%	3	3	3	0.02%	3.05%	KAVPVESPVQK	K	-	95.00%	2.42	0.449	0	1	0	0	2	1,261.66	421	431	TRUE	
SNU216_PC1_03	Isoform 2 of Adenosine 3'-phospho 5'-phosphosu	IPI00384867,IPI00642271	47,515.30	100.00%	3	3	3	0.02%	3.05%	KAVPVESPVQKV	K	-	95.00%	2.26	0.325	0	1	0	0	2	1,360.72	421	432	TRUE	
SNU216_PC1_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	GSSPGPRPVEGTPASR	R	T	95.00%	2.65	0.254	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216_PC1_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	99.80%	2	2	2	0.01%	5.55%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.67	0.282	0	1	0	0	2	1,619.71	424	438	TRUE	
SNU216_PC2_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	99.90%	2	2	2	0.01%	0.83%	KTPLALAGSPTPK	K	N	95.00%	2.64	0.19	0	1	0	0	2	1,360.72	906	918	TRUE	
SNU216_PC2_03	PREDICTED: widely-interspaced zinc finger motifs	IPI00295502	170,212.00	99.90%	2	2	2	0.01%	0.83%	TPLALAGSPTPK	K	N	95.00%	2.82	0.34	0	1	0	0	2	1,232.63	907	918	TRUE	
SNU216_PC2_03	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	GVHIHQAGGSPPASSTSSSSLTNDVAK	K	Q	95.00%	5.29	0.145	0	0	1	0	2	2,672.23	868	894	TRUE	
SNU216_PC2_03	Isoform 1 of Regulatory associated protein of mT	IPI00166044	149,039.20	99.80%	2	2	2	0.01%	3.37%	VLDTSSLTQSAPASPTNK	R	G	95.00%	4.22	0.0584	0	1	0	0	2	1,896.90	850	867	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	6.87%	SPPYTAFLGNLPYDVTEESIKEFFR	K	G	95.00%	5.82	0.444	0	0	1	0	2	3,000.41	93	117	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	100.00%	2	2	2	0.01%	6.87%	SQSSDTEQQSPTSGGGK	R	V	95.00%	3.53	0.512	0	1	0	0	2	1,760.70	495	511	TRUE	
SNU216_PC2_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	3	3	0.02%	5.01%	ERPESPMVPSEQVVEEAVPLPPQALTTSQDK	R	R	95.00%	3.66	0.332	0	0	0	1	2	3,690.75	1093	1125	TRUE	
SNU216_PC2_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	3	3	0.02%	5.01%	RPSQEQSASASSGQPQAPLNR	R	E	95.00%	5.12	0.495	0	0	1	0	2	2,276.04	1072	1092	TRUE	
SNU216_PC2_03	PREDICTED: hypothetical protein LOC23307	IPI00401282,IPI00739371	145,905.00	100.00%	3	3	3	0.02%	5.01%	SSLSGDEEDELFK	R	G	95.00%	2.59	0.269	0	1	0	0	2	1,535.62	1279	1291	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	AETPTESVSEPEVATK	K	Q	95.00%	3.48	0.48	0	2	0	0	2	1,754.77	193	208	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	EGEDGDQPTTPPKPLK	K	T	95.00%	2.56	0.253	0	0	1	0	2	1,788.81	174	189	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	ESLTEAEVATEKEGEDGDQPTTPPKPLK	K	T	95.00%	4.38	0.208	0	0	1	0	2	3,076.43	162	189	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	EWNGVVSESDSPVK	K	R	95.00%	3.37	0.307	0	1	0	0	2	1,612.69	41	54	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	QSQIQNQQGEDSGSDPEDTY	K	-	95.00%	2.48	0.199	0	1	0	0	2	2,385.84	900	919	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	RTIQEVLEEQSEDEDR	K	E	95.00%	4	0.204	0	0	1	0	2	2,055.89	131	146	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	RTIQEVLEEQSEDEDREAK	K	R	95.00%	4.09	0.225	0	0	1	0	2	2,384.06	131	149	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	TIQEVLEEQSEDEDR	R	E	95.00%	3.32	0.271	0	1	0	0	2	1,899.79	132	146	TRUE	
SNU216_PC2_03	DNA ligase 1	IPI00219841	101,738.20	100.00%	9	9	11	0.07%	12.40%	VLGSEGEEEDEALSPAK	R	G	95.00%	3.17	0.441	0	2	0	0	2	1,839.79	63	79	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 7	IPI00003965	128,274.90	100.00%	1	2	4	0.03%	2.18%	AGEQQLSEPEDMEMEAGDTDDPPR	K	I	95.00%	4.55	0.509	0	1	3	0	2	2,727.04	12	35	TRUE	
SNU216_PC2_03	zinc finger protein 609	IPI00307591	151,192.70	99.80%	2	2	2	0.01%	1.49%	APSLTDLVK	K	S	95.00%	1.79	0.31	0	1	0	0	2	1,023.51	1053	1061	TRUE	
SNU216_PC2_03	zinc finger protein 609	IPI00307591	151,192.70	99.80%	2	2	2	0.01%	1.49%	LVEPHSPSPSSK	R	F	95.00%	2.26	0.28	0	1	0	0	2	1,344.62	571	582	TRUE	
SNU216_PC2_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	3	3	0.02%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.81	0.381	0	1	1	0	2	1,850.88	636	652	TRUE	
SNU216_PC2_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	100.00%	2	3	3	0.02%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	4.52	0.296	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC2_03	Polycomb protein SUZ12	IPI00299526	83,055.20	99.90%	1	1	1	0.01%	2.44%	ASMSEFLESEDGEVEQQR	K	T	95.00%	3.49	0.436	0	1	0	0	2	2,150.86	538	555	TRUE	
SNU216_PC2_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	4	4	0.03%	9.20%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.29	0.256	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216_PC2_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	4	4	0.03%	9.20%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	4.23	0.273	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216_PC2_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	4	4	0.03%	9.20%	TTQSMQDFPVVDSEEEAEEEFQK	R	E	95.00%	4.76	0.399	0	0	1	0	2	2,783.13	198	220	TRUE	
SNU216_PC2_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	100.00%	4	4	4	0.03%	9.20%	TTQSMQDFPVVDSEEEAEEEFQKELSQWR	R	K	95.00%	5.14	0.473	0	0	1	0	2	3,582.53	198	226	TRUE	
SNU216_PC2_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.69	0.53	0	0	1	1	2	2,873.37	59	85	TRUE	
SNU216_PC2_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	3	0.02%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	94.60%	3.92	0.0244	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216_PC2_03	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	99.80%	1	1	2	0.01%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.15	0.337	0	2	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC2_03	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	1	1	2	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	6.55	0.0851	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216_PC2_03	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	3	3	0.02%	3.09%	SQEPIPDDQKVSDDDK	K	E	95.00%	2.97	0.3	0	1	0	0	2	1,895.79	415	430	TRUE	
SNU216_PC2_03	Protein LYRIC	IPI00328715	63,838.40	100.00%	2	3	3	0.02%	3.09%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	4.88	0.504	0	1	1	0	2	2,152.93	415	432	TRUE	
SNU216_PC2_03	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	4	0.03%	6.74%	EAAAGIQWSEEETEDEEEEKEVTPESGPPK	R	V	95.00%	6.19	0.608	0	0	2	0	2	3,410.43	206	235	TRUE	
SNU216_PC2_03	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	4	0.03%	6.74%	GTDTQTPAVLSPSK	K	T	95.00%	2.78	0.413	0	1	0	0	2	1,481.69	756	769	TRUE	
SNU216_PC2_03	NOL1 protein	IPI00654555	92,976.00	100.00%	3	3	4	0.03%	6.74%	TNKSPEAKPLPGK	K	L	95.00%	3.07	0.356	0	0	1	0	2	1,446.74	64	76	TRUE	
SNU216_PC2_03	Vigilin	IPI00022228	141,442.20	100.00%	1	1	1	0.01%	1.26%	VATLNSEEESDPPTYK	K	D	95.00%	3.31	0.428	0	1	0	0	2	1,859.79	26	41	TRUE	
SNU216_PC2_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.48%	AFGPGLQGGSAGSPAR	K	F	93.90%	2.35	0.19	0	1	0	0	2	1,509.68	1071	1086	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Filamin A, alpha	IPI00302592,IPI00333541	280,620.20	100.00%	2	2	2	0.01%	1.48%	FNEEHIPDSPFVVPVASPSGDAR	K	R	95.00%	4.06	0.372	0	0	1	0	2	2,547.16	2310	2332	TRUE	
SNU216_PC2_03	Lamin-B2	IPI00009771	69,949.40	99.70%	1	1	1	0.01%	1.94%	AGGPATPLSPTR	R	L	93.60%	2.13	0.203	0	1	0	0	2	1,204.57	29	40	TRUE	
SNU216_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	7	7	0.05%	5.70%	DSSFTEVPRSPK	R	H	95.00%	3.13	0.431	0	1	0	0	2	1,429.64	236	247	TRUE	
SNU216_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	7	7	0.05%	5.70%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.87	0.379	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	7	7	0.05%	5.70%	SPSFGDPQLSPEAR	R	P	95.00%	2.82	0.282	0	1	0	0	2	1,567.68	261	274	TRUE	
SNU216_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	7	7	0.05%	5.70%	SPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.15	0.529	0	1	0	0	2	2,293.96	896	914	TRUE	
SNU216_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	7	7	0.05%	5.70%	SVDYNMPRSPVEMDEDFDVIFDPYAPK	R	L	95.00%	4.26	0.386	0	0	1	0	2	3,256.39	888	914	TRUE	
SNU216_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	7	7	0.05%	5.70%	TPTGEGLLDSPSK	K	T	95.00%	2.87	0.406	0	1	0	0	2	1,381.63	685	697	TRUE	
SNU216_PC2_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	7	7	7	0.05%	5.70%	YGSFEEAEASYPILNR	K	A	95.00%	3.33	0.129	0	1	0	0	2	1,925.83	540	555	TRUE	
SNU216_PC2_03	Novel protein	IPI00640055	81,090.60	99.80%	2	2	3	0.02%	3.50%	RPAGGRPSPSAMGK	R	R	95.00%	2.89	0.454	0	1	0	0	2	1,448.68	716	729	TRUE	
SNU216_PC2_03	Novel protein	IPI00640055	81,090.60	99.80%	2	2	3	0.02%	3.50%	SPSPAHLPDDPK	R	V	95.00%	2.41	0.349	0	2	0	0	2	1,340.59	604	615	TRUE	
SNU216_PC2_03	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	3	4	0.03%	3.37%	FSGFSAKPNNSGEAPSSPTPK	K	R	95.00%	4.01	0.413	0	0	1	0	2	2,186.98	139	159	TRUE	
SNU216_PC2_03	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	3	4	0.03%	3.37%	KFSGFSAKPNNSGEAPSSPTPK	R	R	95.00%	5.19	0.482	0	0	2	0	2	2,315.07	138	159	TRUE	
SNU216_PC2_03	ligase III, DNA, ATP-dependent isoform alpha prec	IPI00000156,IPI00029081,IP	95,804.10	100.00%	3	3	4	0.03%	3.37%	LTTTGQVTSPVK	K	G	95.00%	2.74	0.269	0	1	0	0	2	1,311.66	115	126	TRUE	
SNU216_PC2_03	Isoform Beta of Striatin-3	IPI00011461	87,661.80	100.00%	1	1	1	0.01%	4.25%	SSGDVLETFNFLENADDSDEDEENDMIEGI	R	D	95.00%	5.55	0.593	0	0	1	0	2	3,840.55	240	273	TRUE	
SNU216_PC2_03	SCC-112 protein	IPI00303063	150,835.50	99.80%	1	1	1	0.01%	1.27%	AAVGQESPGGLEAGNAK	R	A	95.00%	3.38	0.384	0	1	0	0	2	1,635.74	1299	1315	TRUE	
SNU216_PC2_03	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPK	R	K	95.00%	4.82	0.461	0	0	1	0	2	2,520.26	316	338	TRUE	
SNU216_PC2_03	hypothetical protein LOC168850	IPI00396098	75,236.80	99.80%	2	2	2	0.01%	3.61%	DSITPDIATKPGQPLFLDSISPKK	R	S	95.00%	3.83	0.352	0	0	1	0	2	2,648.36	316	339	TRUE	
SNU216_PC2_03	palladin	IPI00292009	122,047.90	100.00%	2	2	2	0.01%	2.53%	GRSPRSPSGHPHVR	R	R	95.00%	3.15	0.376	0	0	0	1	2	1,686.74	875	888	TRUE	
SNU216_PC2_03	palladin	IPI00292009	122,047.90	100.00%	2	2	2	0.01%	2.53%	SRDSGDENEPIQER	R	F	80.20%	2.71	0.194	0	0	1	0	2	1,711.69	894	907	TRUE	
SNU216_PC2_03	Isoform F of SON protein	IPI00000192,IPI00217930,IP	252,269.30	100.00%	1	1	1	0.01%	0.54%	ESDQTLAALLSPK	K	E	95.00%	2.72	0.342	0	1	0	0	2	1,452.70	1687	1699	TRUE	
SNU216_PC2_03	H326	IPI00290071,IPI00640954,IP	23,518.60	99.80%	1	1	1	0.01%	3.52%	VHDRSEEEEEEEEEEEEEQPR	R	R	95.00%	7.64	0.61	0	0	1	0	2	2,752.04	95	115	TRUE	
SNU216_PC2_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	2	2	2	0.01%	2.74%	DMDEPSPVPNVEEVTLPK	K	T	95.00%	2.95	0.391	0	1	0	0	2	2,075.92	342	359	TRUE	
SNU216_PC2_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00150057,IPI00216047	124,841.60	100.00%	2	2	2	0.01%	2.74%	KRSPSPSPTPEAK	R	K	91.00%	1.9	0.236	0	1	0	0	2	1,621.64	300	312	TRUE	
SNU216_PC2_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.79%	DGSPEAPASPEREEVALSEYK	K	T	92.80%	2.69	0.191	0	0	1	0	2	2,420.99	1345	1365	TRUE	
SNU216_PC2_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.79%	ETSPESSLIQDEIAVK	K	L	95.00%	3.2	0.524	0	1	0	0	2	1,825.85	1153	1168	TRUE	
SNU216_PC2_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	100.00%	3	3	3	0.02%	2.79%	VDHGAEIITQSPGR	R	S	95.00%	3.24	0.476	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC2_03	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	2	2	2	0.01%	3.30%	ETAAGGLTLKEERSPQTLAPVGEDAMK	K	T	95.00%	4.59	0.336	0	0	1	0	2	2,879.39	1098	1124	TRUE	
SNU216_PC2_03	Isoform 1 of Symplekin	IPI00023344,IPI00746292	126,504.90	100.00%	2	2	2	0.01%	3.30%	SPQTLAPVGEDAMKTPSPAAEDAREPEAK	R	G	95.00%	5.15	0.339	0	0	0	1	2	3,153.39	1111	1139	TRUE	
SNU216_PC2_03	DNA-directed RNA polymerase, mitochondrial pre	IPI00298738	140,214.60	99.50%	2	2	2	0.01%	2.25%	QKNGFPPNFIHSLDSSHMMLTALHCYR	K	K	92.30%	4.18	0.193	0	0	0	1	2	3,393.44	1130	1156	TRUE	
SNU216_PC2_03	DNA-directed RNA polymerase, mitochondrial pre	IPI00298738	140,214.60	99.50%	2	2	2	0.01%	2.25%	QKNGFPPNFIHSLDSSHMMLTALHCYRK	K	G	93.40%	3.68	0.157	0	0	0	1	2	3,521.54	1130	1157	TRUE	
SNU216_PC2_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.38	0.286	0	1	0	0	2	1,491.78	177	190	TRUE	
SNU216_PC2_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	KRVSVELTNSLFK	R	H	95.00%	3.23	0.24	0	0	1	0	2	1,600.85	660	672	TRUE	
SNU216_PC2_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	RVSVELTNSLFK	K	H	95.00%	2.92	0.258	0	1	1	0	2	1,472.75	661	672	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	ASPSKPASAPASR	R	S	95.00%	3.17	0.412	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	DGVLTLANNVTPAKDVPPLSETEATPVPIKD	K	G	95.00%	5.21	0.359	0	0	0	1	2	4,211.12	589	627	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	DMESPTKLDVTLAK	K	D	95.00%	2.62	0.32	0	0	1	0	2	1,627.77	305	318	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	DMSPLSETEMALGK	K	D	95.00%	3.16	0.422	0	4	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	4.35	0.339	0	0	3	0	2	3,106.50	533	560	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	DVTPPPETEVVLIK	K	N	95.00%	2.4	0.338	0	1	0	0	2	1,616.82	547	560	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	ETERASPIKMDLAPSK	K	D	95.00%	2.8	0.199	0	0	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	GISEDSHLESLQDVGQSAAPTFMISPETVTG	K	K	95.00%	6.96	0.0351	0	0	1	1	2	3,569.64	628	661	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	RASPSKPASAPASR	K	S	95.00%	2.59	0.233	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	SPSTLLPK	R	K	95.00%	1.72	0.253	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216_PC2_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	11	12	17	0.11%	14.60%	VGSLDNVGHLPAGGAVK	K	I	79.80%	2.46	0.191	0	0	1	0	2	1,670.83	1099	1115	TRUE	
SNU216_PC2_03	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	LKTEKEPDATPPSPR	K	T	95.00%	2.57	0.281	0	0	1	0	2	1,745.85	329	343	TRUE	
SNU216_PC2_03	DNA-repair protein complementing XP-G cells	IPI00477535	133,331.50	99.80%	2	2	2	0.01%	2.45%	NAPAAVDEGSISPR	R	T	95.00%	2.71	0.415	0	1	0	0	2	1,463.65	373	386	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	AIISSSDDSSDEDKLK	K	I	86.00%	3.27	0.0438	0	1	0	0	2	1,869.74	1034	1049	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	GEEGSDDDETENGPK	K	P	95.00%	2.59	0.513	0	1	0	0	2	1,658.57	988	1002	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	GEEGSDDDETENGPKPK	K	K	95.00%	3.73	0.427	0	1	2	0	2	1,883.72	988	1004	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	GGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.48	0.471	0	1	0	0	2	2,307.92	936	955	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	KGGEFDEFVNDDTDDDLPISK	K	K	95.00%	4.28	0.498	0	1	1	0	2	2,436.01	935	955	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	KGGEFDEFVNDDTDDDLPISKK	K	K	95.00%	3.66	0.356	0	0	1	0	2	2,564.11	935	956	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	KGSGSEQEGEDEEGGER	R	K	95.00%	4.62	0.532	0	2	2	0	2	1,859.69	961	977	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	KGSGSEQEGEDEEGGERK	R	K	95.00%	4.43	0.529	0	0	2	0	2	2,067.75	961	978	TRUE	
SNU216_PC2_03	136 kDa protein	IPI00005625	135,683.90	100.00%	9	13	17	0.11%	6.19%	RKGSGSEQEGEDEEGGER	R	K	95.00%	2.91	0.475	0	1	1	0	2	2,095.76	960	977	TRUE	
SNU216_PC2_03	DEAH (Asp-Glu-Ala-His) box polypeptide 34 isofo	IPI00385022,IPI00413483	99,019.10	99.80%	1	1	1	0.01%	1.22%	LQEEQDGGSSDEDR	R	A	95.00%	2.29	0.309	0	1	0	0	2	1,724.57	741	754	TRUE	
SNU216_PC2_03	Isoform 1 of A-kinase anchor protein 12	IPI00237884	191,431.60	100.00%	1	1	1	0.01%	1.74%	VELPSEEQVSGSQGPSEEKPAPLATEVFDEK	K	I	95.00%	4.31	0.434	0	0	1	0	2	3,393.56	376	406	TRUE	
SNU216_PC2_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	23	0.15%	4.08%	SRTSVQTEDDQLIAGQSAR	R	A	95.00%	4.58	0.541	0	1	3	0	2	2,141.98	652	670	TRUE	
SNU216_PC2_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	23	0.15%	4.08%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.42	0.473	0	12	6	0	2	2,238.86	634	651	TRUE	
SNU216_PC2_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	3	5	23	0.15%	4.08%	TSVQTEDDQLIAGQSAR	R	A	95.00%	3.39	0.365	0	1	0	0	2	1,898.85	654	670	TRUE	
SNU216_PC2_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	DSQDASAEQSDHDDEVASLASASGGFGTK	R	V	95.00%	5.19	0.445	0	0	1	0	2	2,962.19	870	898	TRUE	
SNU216_PC2_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	GPGQVPTATSALSLELQEVEPLGLPQASPSR	K	T	95.00%	4.66	0.553	0	0	1	0	2	3,209.61	696	726	TRUE	
SNU216_PC2_03	autoantigen RCD8	IPI00376317,IPI00477242,IP	131,860.10	100.00%	3	3	3	0.02%	6.28%	TRSPDVISSASTALSQDIPEIASEALSR	R	G	95.00%	6.3	0.0371	0	0	1	0	2	2,981.45	727	754	TRUE	
SNU216_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	10	0.07%	6.73%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.42	0.272	0	2	0	0	2	2,103.90	515	533	TRUE	
SNU216_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	10	0.07%	6.73%	EEPVSSGPEEAVGK	K	S	95.00%	3.09	0.417	0	2	0	0	2	1,494.64	565	578	TRUE	
SNU216_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	10	0.07%	6.73%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.16	0.423	0	2	0	0	2	1,856.83	562	578	TRUE	
SNU216_PC2_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	6	8	10	0.07%	6.73%	SFSKEELMSSDLEETAGSTSIPK	K	R	93.90%	4.16	0	0	2	2	0	2	2,553.13	511	533	TRUE	
SNU216_PC2_03	Isoform 1 of Lethal(3)malignant brain tumor-like :	IPI00100041	79,111.10	99.80%	2	2	2	0.01%	4.68%	ASSPELPVSVENIK	K	Q	95.00%	2.5	0.339	0	1	0	0	2	1,549.75	687	700	TRUE	
SNU216_PC2_03	Isoform 1 of Lethal(3)malignant brain tumor-like :	IPI00100041	79,111.10	99.80%	2	2	2	0.01%	4.68%	EAGELPTSPLHLLSPGTPR	R	S	95.00%	3.47	0.31	0	0	1	0	2	2,052.02	60	78	TRUE	
SNU216_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	6	6	0.04%	7.50%	EPTPSIASDISLPIATQELR	K	Q	95.00%	3.44	0.348	0	1	1	0	2	2,218.10	723	742	TRUE	
SNU216_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	6	6	0.04%	7.50%	SHMSGSPGPGGSNTAPSTPVIGGSDKPGM	K	A	95.00%	5.97	0.0963	0	0	1	1	2	3,133.36	660	691	TRUE	
SNU216_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	6	6	0.04%	7.50%	SSSSLLASPGHISVK	R	E	95.00%	3.39	0.325	0	1	0	0	2	1,549.76	708	722	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	KIAA1228 protein	IPI00409635	98,904.50	100.00%	4	6	6	0.04%	7.50%	SSSSLLASPGHISVKEPTPSIASDISLPIATQEL	R	Q	95.00%	6.03	0.0455	0	0	1	0	2	3,748.84	708	742	TRUE	
SNU216_PC2_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	2	2	2	0.01%	3.01%	DKKSPLIESTANMDNNQSQK	R	T	95.00%	4.24	0.437	0	0	1	0	2	2,328.05	296	315	TRUE	
SNU216_PC2_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00183002,IPI00397728,IP	111,187.40	100.00%	2	2	2	0.01%	3.01%	FPTTATKISPK	K	E	94.40%	2.14	0.199	0	1	0	0	2	1,270.64	414	424	TRUE	
SNU216_PC2_03	Isoform 1 of Double-strand break repair protein M	IPI00029159,IPI00218853	80,595.10	100.00%	1	1	1	0.01%	3.11%	GVDFESSEDDDDDPFMNTSSLR	K	R	95.00%	4.16	0.588	0	1	0	0	2	2,557.96	683	704	TRUE	
SNU216_PC2_03	Isoform 1 of NEDD9-interacting protein with calp	IPI00157757,IPI00441963,IP	117,875.60	99.80%	1	1	1	0.01%	2.34%	SMAHSPGPVSQASPGTSSAVLFLSK	K	L	95.00%	4.3	0.361	0	0	1	0	2	2,523.20	613	637	TRUE	
SNU216_PC2_03	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	3	4	4	0.03%	9.26%	GSDALSETSSVSHIEDLEK	R	V	95.00%	4.32	0.141	0	1	1	0	2	2,083.91	713	731	TRUE	
SNU216_PC2_03	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	3	4	4	0.03%	9.26%	GVPHPEDDHSQVEGPESLR	K	-	95.00%	2.64	0.302	0	0	1	0	2	2,164.93	770	788	TRUE	
SNU216_PC2_03	Hypothetical protein KIAA0251	IPI00384689	86,708.10	100.00%	3	4	4	0.03%	9.26%	LSSGPEQITLEASSTEGHPGAPSPQHTDQTE	R	G	95.00%	5.85	0.217	0	0	0	1	2	3,742.69	735	769	TRUE	
SNU216_PC2_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	3	3	3	0.02%	3.89%	GRSTDEYSEADEEEEEEEGKPSR	R	K	95.00%	3.4	0.48	0	0	1	0	2	2,897.99	1234	1256	TRUE	
SNU216_PC2_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	3	3	3	0.02%	3.89%	KPDSPPKVLEPENK	K	Q	95.00%	3.17	0.38	0	0	1	0	2	1,657.82	704	717	TRUE	
SNU216_PC2_03	remodeling and spacing factor 1	IPI00290652,IPI00514411	159,318.30	100.00%	3	3	3	0.02%	3.89%	TFLDKDAQRLSPIPEEVPK	K	S	88.40%	3.12	0.16	0	0	1	0	2	2,263.14	553	571	TRUE	
SNU216_PC2_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	DALGDSLQVPVSPSSTTSSR	R	C	95.00%	4.39	0.0288	0	1	0	0	2	2,083.95	372	391	TRUE	
SNU216_PC2_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	4.08%	GQKSPGALETPSAAGSQGNTASQGK	K	E	95.00%	4.1	0.444	0	0	1	0	2	2,409.10	621	645	TRUE	
SNU216_PC2_03	FCH domain only 2	IPI00472794	89,293.90	98.90%	1	1	1	0.01%	3.44%	GPSPVSLGNQDTLPVAVALTESVNAYFK	R	G	95.00%	5.76	0.603	0	0	1	0	2	2,954.45	535	562	TRUE	
SNU216_PC2_03	poly(A) polymerase alpha	IPI00384028	82,844.30	99.80%	1	1	1	0.01%	1.88%	HYGITSPISLAAPK	K	E	95.00%	3.96	0.477	0	1	0	0	2	1,534.77	19	32	TRUE	
SNU216_PC2_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	2	2	2	0.01%	2.46%	DVEDMELSDVEDDGSK	R	I	95.00%	3.45	0.462	0	1	0	0	2	1,862.69	341	356	TRUE	
SNU216_PC2_03	Novel protein	IPI00384541,IPI00639879	152,879.40	100.00%	2	2	2	0.01%	2.46%	SFNYSPNSSTSEVSSTSASK	K	A	95.00%	4.35	0.0861	0	1	0	0	2	2,146.88	563	582	TRUE	
SNU216_PC2_03	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	2	2	2	0.01%	2.15%	AASPPASASDLIEQQQK	R	R	95.00%	3.15	0.424	0	1	0	0	2	1,820.84	333	349	TRUE	
SNU216_PC2_03	Isoform 1 of Protein FAM40A	IPI00549766	95,579.00	100.00%	2	2	2	0.01%	2.15%	AASPPASASDLIEQQQKR	R	G	95.00%	4.33	0.474	0	0	1	0	2	1,976.94	333	350	TRUE	
SNU216_PC2_03	KH-type splicing regulatory protein	IPI00479786,IPI00759502	73,805.40	100.00%	1	1	1	0.01%	1.83%	VQISPDSGGLPER	K	S	95.00%	2.21	0.255	0	1	0	0	2	1,434.66	178	190	TRUE	
SNU216_PC2_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	3.21%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	4.7	0.437	0	0	1	0	2	3,017.35	1574	1599	TRUE	
SNU216_PC2_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	3.21%	SEDDSAKFDSNEEDSASVFSPSFGLK	K	Q	95.00%	3.42	0.347	0	0	1	0	2	2,875.18	1457	1482	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp686A0439	IPI00448751	73,610.10	99.80%	1	1	1	0.01%	2.00%	SMPVLGSVSSVTK	K	T	95.00%	2.14	0.281	0	1	0	0	2	1,371.66	506	518	TRUE	
SNU216_PC2_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	138,759.20	99.90%	2	2	2	0.01%	1.91%	IEDSEPHIPLIDDTDAEDDAPTK	R	R	95.00%	4.1	0.24	0	0	1	0	2	2,616.12	1190	1212	TRUE	
SNU216_PC2_03	Isoform D of Plasma membrane calcium-transpor	IPI00021695,IPI00216527,IP	138,759.20	99.90%	2	2	2	0.01%	1.91%	IEDSEPHIPLIDDTDAEDDAPTKR	R	N	95.00%	4.8	0.396	0	0	1	0	2	2,772.23	1190	1213	TRUE	
SNU216_PC2_03	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	100.00%	2	3	3	0.02%	4.87%	AVPMAPAPASPGSSNDSSAR	K	S	95.00%	3.32	0.31	0	1	1	0	2	1,949.84	750	769	TRUE	
SNU216_PC2_03	CDNA FLJ14717 fis, clone NT2RP3001239, moder	IPI00045856,IPI00296485	95,254.60	100.00%	2	3	3	0.02%	4.87%	KAPSTSHSGFPPVANGPRSPPSLR	R	C	95.00%	3.21	0.222	0	0	0	1	2	2,524.25	564	587	TRUE	
SNU216_PC2_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	3	3	4	0.03%	4.62%	ERPISLGIFPLPAGDGLLTPDAQK	K	G	95.00%	4.36	0.504	0	0	1	0	2	2,585.34	199	222	TRUE	
SNU216_PC2_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	3	3	4	0.03%	4.62%	SASQSSLDKLDQELK	R	E	95.00%	2.45	0.198	0	1	0	0	2	1,728.81	714	728	TRUE	
SNU216_PC2_03	Isoform 5 of C-jun-amino-terminal kinase-interac	IPI00744288	103,212.60	100.00%	3	3	4	0.03%	4.62%	SASQSSLDKLDQELKEQQK	R	E	95.00%	4.21	0.339	0	0	2	0	2	2,242.06	714	732	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	GNLLHFPSSQGEEEKEKLEGDHTIR	R	Q	95.00%	3.51	0.232	0	0	0	1	2	2,930.37	1060	1084	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	IDEDGENTQIEDTEPMSPVLNSK	R	F	95.00%	5.36	0.477	0	1	1	0	2	2,641.12	536	558	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	KNGSTAVAESVASPQK	R	T	95.00%	2.82	0.273	0	1	0	0	2	1,653.78	1016	1031	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	7.09	0.632	0	0	1	0	2	2,881.31	1107	1132	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	QSQQPMKPISPVKDPVSPASQK	R	M	95.00%	4.11	0.426	0	0	2	0	2	2,457.22	1085	1106	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	RSDSPEIPFQAAAGPSDGLDASSPGNSFVGI	R	V	95.00%	6.56	0.533	0	0	1	0	2	3,282.51	1459	1490	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	SDSPEIPFQAAAGPSDGLDASSPGNSFVGLF	R	V	95.00%	5.21	0.486	0	0	1	0	2	3,126.41	1460	1490	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	SEDMPFSPK	R	A	95.00%	1.92	0.306	0	1	0	0	2	1,117.43	259	267	TRUE	
SNU216_PC2_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	213,572.20	100.00%	9	10	11	0.07%	8.57%	STPFIVPSSPTEQEGR	R	Q	95.00%	2.56	0.237	0	1	0	0	2	1,811.82	372	387	TRUE	
SNU216_PC2_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	1.66%	EKTDDTSGEDNDEKEAVASK	K	G	95.00%	2.58	0.283	0	0	1	0	2	2,327.88	548	567	TRUE	
SNU216_PC2_03	nuclear receptor co-repressor 2	IPI00001735	274,735.30	99.80%	2	2	2	0.01%	1.66%	LEPVSPPSPPHTDPELELVPPR	K	L	95.00%	3.22	0.375	0	0	1	0	2	2,563.19	145	166	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	AAVLSDSEDEEKASAK	K	K	95.00%	2.88	0.416	0	1	1	0	2	1,809.72	394	409	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	EAEDSDSDDNIK	K	R	94.30%	1.83	0.261	0	1	0	0	2	1,497.47	507	518	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	EAEDSDSDDNIKR	K	G	95.00%	2.53	0.332	0	2	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	EKTIASDSEEEAGK	R	E	95.00%	2.74	0.407	0	1	0	0	2	1,653.63	433	446	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	EKTIASDSEEEAGKELSDK	R	K	95.00%	2.99	0.523	0	1	0	0	2	2,225.91	433	451	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	FHSSDSEEEEHKK	K	Q	95.00%	1.72	0.387	0	1	0	0	2	1,828.59	360	372	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	GHHVTDSENDEPLNLNASDSESEELHR	K	Q	95.00%	3.98	0.202	0	0	1	2	2	3,271.23	63	89	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	GPASDSETEDASR	K	H	95.00%	2.35	0.484	0	3	0	0	2	1,401.52	310	322	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	HQASDSENEELPKPR	R	I	95.00%	3.65	0.312	0	1	2	0	2	1,816.79	232	246	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	HQASDSENEEPPKPR	R	M	95.00%	3.11	0.387	0	2	1	0	2	1,800.76	193	207	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	ISDSESEDPPR	R	H	95.00%	2.54	0.435	0	1	0	0	2	1,311.51	247	257	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	KAAVLSDSEDEEK	R	A	95.00%	2.47	0.396	0	1	0	0	2	1,580.61	393	405	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	MDSDEDEKEGEEEK	K	V	95.00%	2.95	0.269	0	2	2	0	2	1,749.60	375	388	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	MDSDEDEKEGEEEKVAK	K	R	89.00%	2.31	0.213	0	1	0	0	2	2,047.81	375	391	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	NQASDSENEELPKPR	R	V	95.00%	3.36	0.344	0	3	2	0	2	1,873.74	284	298	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	QKMDSDEDEKEGEEEK	K	V	95.00%	3.23	0.376	0	1	1	0	2	2,021.75	373	388	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	TIASDSEEEAGK	K	E	95.00%	1.98	0.452	0	1	0	0	2	1,396.49	435	446	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	TIASDSEEEAGKELSDK	K	K	95.00%	3.71	0.381	0	1	1	0	2	1,968.77	435	451	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	TIASDSEEEAGKELSDKK	K	N	95.00%	2.51	0.323	0	1	1	0	2	2,096.87	435	452	TRUE	
SNU216_PC2_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	100.00%	20	29	41	0.27%	23.10%	VSDSESEGPQK	R	G	95.00%	2.65	0.442	0	2	0	0	2	1,242.49	299	309	TRUE	
SNU216_PC2_03	Nardilysin	IPI00243221,IPI00747052	139,288.40	100.00%	1	1	1	0.01%	1.15%	RGSLSNAGDPEIVK	R	S	95.00%	2.9	0.209	0	0	1	0	2	1,522.73	92	105	TRUE	
SNU216_PC2_03	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	1	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.69	0.343	0	0	1	0	2	2,565.01	131	153	TRUE	
SNU216_PC2_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	4	4	0.03%	7.33%	AGQDMGLEHGFEKPLDSAMSAEEDTDVR	R	G	95.00%	5.6	0.406	0	0	1	0	2	3,115.30	300	327	TRUE	
SNU216_PC2_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	4	4	0.03%	7.33%	GAEAFGDSEEDGEDVFEVEK	R	I	95.00%	3.86	0.492	0	1	1	0	2	2,238.86	44	63	TRUE	
SNU216_PC2_03	M-phase phosphoprotein 8	IPI00030408	97,185.20	100.00%	3	4	4	0.03%	7.33%	GLWSTDSAEEDKETK	R	R	95.00%	2.88	0.209	0	1	0	0	2	1,775.74	397	411	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	4	5	0.03%	4.86%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.67	0.468	0	0	1	1	2	2,516.14	103	124	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.80%	2	4	5	0.03%	4.86%	STPSHGSVSSLNSTGSLSPK	R	H	95.00%	4.14	0.445	0	1	2	0	2	2,009.92	238	257	TRUE	
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	ADSDGAKPEPVAMAR	K	S	95.00%	2.12	0.258	0	1	1	0	2	1,594.69	238	252	TRUE	
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	ARGDSEALDEES	R	-	95.00%	2.56	0.275	0	1	0	0	2	1,358.51	664	675	TRUE	
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	GEAERGSGGSSGDELR	R	E	95.00%	1.97	0.32	0	1	0	0	2	1,803.60	360	375	TRUE	
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	GESAEDKEHEEGRDSEEGPR	K	C	95.00%	3.71	0.393	0	0	1	0	2	2,322.91	616	635	TRUE	
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	GSGGSSGDELREDDEPVK	R	K	95.00%	2.96	0.314	0	2	1	0	2	1,993.74	365	382	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	GSGGSSGDELREDDEPVKK	R	R	95.00%	2.5	0.235	0	0	1	0	2	2,121.84	365	383	TRUE	
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	GVMAVTAVTATAASDR	R	M	95.00%	2.26	0.292	0	1	0	0	2	1,600.74	124	139	TRUE	
SNU216_PC2_03	hepatoma-derived growth factor-related protein 2	IPI00419322,IPI00645387	74,730.70	100.00%	8	10	11	0.07%	14.50%	KRSEGFSMDR	R	K	95.00%	2.44	0.405	0	0	1	0	2	1,292.55	452	461	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	100.00%	2	2	2	0.01%	3.52%	QNSSSSDSGGSIVR	R	D	95.00%	3.4	0.507	0	1	0	0	2	1,460.60	659	672	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor kinase substrate	IPI00290337	92,041.00	100.00%	2	2	2	0.01%	3.52%	RKSQMEEVQDELIHR	K	L	95.00%	2.97	0.269	0	0	0	1	2	1,977.92	685	699	TRUE	
SNU216_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	EYVSNDAAQSDDEEKLQSQPTDTDGGR	K	L	95.00%	3.34	0.291	0	0	1	0	2	3,035.24	396	422	TRUE	
SNU216_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	SNSGRELTDEEILASVMIK	R	N	95.00%	4.68	0.326	0	0	1	0	2	2,172.03	344	362	TRUE	
SNU216_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	TKEYVSNDAAQSDDEEKLQSQPTDTDGGR	R	L	95.00%	5.55	0.504	0	0	1	1	2	3,264.38	394	422	TRUE	
SNU216_PC2_03	WD repeat domain 44 protein	IPI00444371,IPI00552345,IP	101,587.90	100.00%	4	5	5	0.03%	6.46%	VGNESPVQELK	K	Q	79.60%	2.09	0.15	0	1	0	0	2	1,279.59	46	56	TRUE	
SNU216_PC2_03	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	117,494.20	99.80%	2	3	3	0.02%	3.79%	ADSEYTDKLQHYTSGHMTPGMK	R	I	95.00%	4.07	0.325	0	0	1	1	2	2,577.08	573	594	TRUE	
SNU216_PC2_03	Isoform 1 of Ephrin type-B receptor 2 precursor	IPI00021275,IPI00219421,IP	117,494.20	99.80%	2	3	3	0.02%	3.79%	FLEDDTSDPTYTSALGGK	R	I	95.00%	3.37	0.404	0	1	0	0	2	1,996.84	770	787	TRUE	
SNU216_PC2_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.90%	2	2	2	0.01%	3.20%	KTESPIKLSPATPSR	K	K	95.00%	3.72	0.279	0	0	1	0	2	1,691.87	660	674	TRUE	
SNU216_PC2_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.90%	2	2	2	0.01%	3.20%	SVAVSDEEEVEEEAER	R	R	95.00%	3.6	0.391	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	6	0.04%	12.40%	DPTSLLGVLQAEADSTSEGLEDAVHSR	K	G	95.00%	6.2	0.435	0	0	1	0	2	2,877.32	600	626	TRUE	
SNU216_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	6	0.04%	12.40%	EHNSMWASLSSPDAEAVEPDFSSIER	R	L	95.00%	4.79	0.477	0	0	1	0	2	2,971.25	46	71	TRUE	
SNU216_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	6	0.04%	12.40%	GARPPAAGPGGDEDEDEEDTAPESALDTSL	R	S	95.00%	6.99	0.548	0	0	2	0	2	3,292.37	627	658	TRUE	
SNU216_PC2_03	hypothetical protein LOC64423 isoform 2	IPI00644591	78,770.80	100.00%	4	5	6	0.04%	12.40%	QDAKDPTSLLGVLQAEADSTSEGLEDAVHS	R	G	95.00%	6.77	0.51	0	0	1	1	2	3,319.53	596	626	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	GSGGLFSPSTAHVPDGALGQR	R	D	95.00%	2.69	0.226	0	0	1	0	2	2,090.97	1023	1043	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	NRSAEEGELAESK	R	S	95.00%	3.22	0.361	0	1	1	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	RDSLGAYASQDANEQGQDLGK	K	R	95.00%	3.81	0.404	0	0	1	0	2	2,302.99	891	911	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	RDSLGAYASQDANEQGQDLGKR	K	D	95.00%	7.26	0.392	0	0	1	0	2	2,459.10	891	912	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	RESAASGLGGLLEEEGAGAGAAQEEVLEPGI	R	D	95.00%	6.52	0.568	0	0	1	0	2	3,090.44	1471	1501	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	SPSQDFSFIEDTEILDSAMYR	R	S	95.00%	5.55	0.564	0	1	1	0	2	2,531.07	1552	1572	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	VPSSDEEVVEEPQSR	R	R	95.00%	4.12	0.396	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	VSGAGFSPSSK	R	M	90.90%	2	0.25	0	1	0	0	2	1,103.48	1132	1142	TRUE	
SNU216_PC2_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	9	11	11	0.07%	8.85%	YESQEPLAGQESPLPLATR	R	E	95.00%	3.52	0.362	0	1	0	0	2	2,166.01	590	608	TRUE	
SNU216_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	AGKEPAKPSPSR	K	D	95.00%	3.28	0.403	0	0	1	0	2	1,304.64	636	647	TRUE	
SNU216_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	RTEGYAAFQEDSSGDEAESPSK	K	M	95.00%	3.1	0.32	0	0	1	0	2	2,520.94	80	101	TRUE	
SNU216_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TEGYAAFQEDSSGDEAESPSK	R	M	95.00%	3.2	0.303	0	1	0	0	2	2,364.84	81	101	TRUE	
SNU216_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TGEPSPPHDILHEPPDVVSDDEKDHGK	R	K	95.00%	4.54	0.375	0	0	0	1	2	3,107.30	43	69	TRUE	
SNU216_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TPSSEEISPTK	R	F	95.00%	2.46	0.419	0	1	0	0	2	1,255.55	26	36	TRUE	
SNU216_PC2_03	RalA-binding protein 1	IPI00009544	75,934.00	100.00%	6	6	6	0.04%	11.90%	TPSSEEISPTKFPGLYR	R	T	95.00%	3.38	0.434	0	1	0	0	2	1,988.94	26	42	TRUE	
SNU216_PC2_03	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	100.00%	1	2	4	0.03%	5.82%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	5.86	0.5	0	0	1	3	2	2,333.13	446	466	TRUE	
SNU216_PC2_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	99.80%	2	2	2	0.01%	1.86%	HHSSSSQSGSSIQRHSPSPR	R	R	95.00%	2.58	0.22	0	0	0	1	2	2,305.95	331	350	TRUE	
SNU216_PC2_03	Isoform 1 of Zinc finger CCCH-type domain-cont	IPI00329547	196,639.60	99.80%	2	2	2	0.01%	1.86%	SLSPSHLTEDR	R	Q	95.00%	2.05	0.319	0	0	1	0	2	1,321.58	875	885	TRUE	
SNU216_PC2_03	oxysterol-binding protein-like protein 5 isoform b	IPI00154388,IPI00220116	91,900.50	99.90%	3	3	3	0.02%	3.53%	ENPEESDTETQDHSR	R	K	93.50%	2.5	0.219	0	0	1	0	2	1,853.68	239	253	TRUE	
SNU216_PC2_03	oxysterol-binding protein-like protein 5 isoform b	IPI00154388,IPI00220116	91,900.50	99.90%	3	3	3	0.02%	3.53%	QTTFLGSPGPR	R	H	82.80%	1.85	0.245	0	1	0	0	2	1,240.57	683	693	TRUE	
SNU216_PC2_03	oxysterol-binding protein-like protein 5 isoform b	IPI00154388,IPI00220116	91,900.50	99.90%	3	3	3	0.02%	3.53%	SERENPEESDTETQDHSR	K	K	95.00%	3.01	0.193	0	0	1	0	2	2,225.86	236	253	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	EIAIVHSDAEK	K	E	95.00%	2.72	0.366	0	1	0	0	2	1,291.59	341	351	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	EIAIVHSDAEKEQEEEEQK	K	Q	95.00%	3.53	0.345	0	0	1	0	2	2,321.02	341	359	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	6.85	0.564	0	0	1	2	2	3,065.37	341	365	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	ESEKQQDSQPEEVMDVLEMVENVK	R	H	95.00%	4.8	0.493	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	QESDPEDDDVK	R	K	95.00%	3.69	0.583	0	1	0	0	2	1,356.48	98	108	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	QESDPEDDDVKKPALQSSVVATSK	R	E	95.00%	4.66	0.478	0	1	2	0	2	2,653.22	98	121	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	QQDSQPEEVMDVLEMVENVK	K	H	95.00%	4.38	0.448	0	1	1	0	2	2,427.05	378	397	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	SLSPGKENVSALDMEK	K	E	95.00%	3.42	0.42	0	3	2	0	2	1,800.81	441	456	TRUE	
SNU216_PC2_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	9	13	18	0.12%	13.10%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	4.72	0.369	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216_PC2_03	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	100.00%	2	2	2	0.01%	5.94%	DTDSDREAGTETGGENNDKEEEEK	K	K	95.00%	3.67	0.468	0	0	1	0	2	2,735.04	338	361	TRUE	
SNU216_PC2_03	enhancer of zeste 2 isoform b	IPI00171252,IPI00376787	81,039.30	100.00%	2	2	2	0.01%	5.94%	ESSIIAPAPAEDVDTPPR	K	K	95.00%	3.55	0.284	0	0	1	0	2	1,944.90	434	451	TRUE	
SNU216_PC2_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.87	0.576	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC2_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	3.65	0.452	0	0	1	0	2	2,778.97	238	262	TRUE	
SNU216_PC2_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.81	0.478	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216_PC2_03	Probable ATP-dependent RNA helicase DDX46	IPI00329791,IPI00657954	117,465.20	100.00%	1	1	2	0.01%	2.71%	AALGLQDSDDEDAAVDIDEQIESMFNSK	K	K	95.00%	6.46	0.533	0	0	2	0	2	3,106.31	797	824	TRUE	
SNU216_PC2_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	4	0.03%	3.81%	GISPVVSEHRK	K	Q	95.00%	2.49	0.406	0	0	1	0	2	1,288.64	781	791	TRUE	
SNU216_PC2_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	4	0.03%	3.81%	QNSPAGNKENIKPNETSPSFSK	R	A	95.00%	2.82	0.307	0	0	2	0	2	2,534.10	755	776	TRUE	
SNU216_PC2_03	Isoform 1 of Ataxin-2	IPI00180154,IPI00455359,IP	105,905.00	100.00%	3	3	4	0.03%	3.81%	TSPSGGTWSSVVSGVPR	R	L	95.00%	3.28	0.469	0	1	0	0	2	1,740.80	665	681	TRUE	
SNU216_PC2_03	hypothetical protein LOC157769	IPI00152671	93,971.90	99.80%	1	1	1	0.01%	4.42%	SPVQEASSATDTDTNSQEDPADTASVSSLSI	R	R	95.00%	6.9	0.0655	0	0	1	0	2	3,801.65	340	376	TRUE	
SNU216_PC2_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	3	3	0.02%	4.94%	RASDDGKLTDPSK	R	T	95.00%	2.59	0.188	0	0	1	0	2	1,469.66	41	53	TRUE	
SNU216_PC2_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	99.80%	2	3	3	0.02%	4.94%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	3.1	0.345	0	1	1	0	2	2,108.97	257	275	TRUE	
SNU216_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	95.00%	6.32	0.0376	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	3.94	0.442	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.04	0.38	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC2_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	5	5	0.03%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	3.24	0.282	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC2_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	NTDVAQSPEAPKQEAPAK	R	K	95.00%	3.48	0.372	0	1	1	0	2	1,960.90	609	626	TRUE	
SNU216_PC2_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	NTDVAQSPEAPKQEAPAKK	R	K	95.00%	3.7	0.291	0	0	1	0	2	2,089.00	609	627	TRUE	
SNU216_PC2_03	Isoform 3 of Ribosome-binding protein 1	IPI00215743	152,713.70	100.00%	3	4	5	0.03%	3.39%	SHVEDGDIAGAPASSPEAPPAEQDPVQLK	K	T	95.00%	5.56	0.528	0	0	2	0	2	2,992.36	1263	1291	TRUE	
SNU216_PC2_03	Cytospin-A	IPI00178072	124,595.60	100.00%	1	1	1	0.01%	1.61%	AQLGINEDHSEGDEKSEK	R	E	95.00%	2.84	0.336	0	1	0	0	2	2,065.87	211	228	TRUE	
SNU216_PC2_03	76 kDa protein	IPI00743778	75,757.70	99.60%	2	2	2	0.01%	6.11%	DSHSSEEDEASSQTDLSQTISK	R	K	91.40%	2.7	0.228	0	0	1	0	2	2,540.96	240	261	TRUE	
SNU216_PC2_03	76 kDa protein	IPI00743778	75,757.70	99.60%	2	2	2	0.01%	6.11%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.59	0.211	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC2_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	6.50%	RYPSSISSSPQK	R	D	94.30%	2.16	0.202	0	1	0	0	2	1,416.65	603	614	TRUE	
SNU216_PC2_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	6.50%	RYPSSISSSPQKDLTQAK	R	N	95.00%	3.65	0.25	0	0	1	0	2	2,073.00	603	620	TRUE	
SNU216_PC2_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	6.50%	SPAVATSTAAPPPPSSPLPSK	K	S	95.00%	4.02	0.165	0	1	1	0	2	2,040.01	441	461	TRUE	
SNU216_PC2_03	Ubiquitin-associated protein 2-like	IPI00029019,IPI00412535,IP	114,761.30	100.00%	4	5	5	0.03%	6.50%	STSAPQMSPGSSDNQSSSPQPAQQK	K	L	95.00%	4.32	0.132	0	1	0	0	2	2,612.09	462	486	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,061.20	99.80%	2	2	2	0.01%	6.72%	EGSPAPLEPEPGAAQPK	R	L	95.00%	3.04	0.333	0	1	0	0	2	1,754.80	396	412	TRUE	
SNU216_PC2_03	Isoform 1 of Forkhead box protein K2	IPI00006029,IPI00220426,IP	69,061.20	99.80%	2	2	2	0.01%	6.72%	SAPASPNHAGVLSAHSSGAQTPESLSR	R	E	95.00%	4.56	0.515	0	0	1	0	2	2,696.24	369	395	TRUE	
SNU216_PC2_03	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	100.00%	2	2	2	0.01%	4.06%	APPAPLAASEVTSNSNSAER	K	R	95.00%	3.53	0.524	0	1	0	0	2	1,961.90	172	190	TRUE	
SNU216_PC2_03	Inner nuclear membrane protein Man1	IPI00032491	99,999.40	100.00%	2	2	2	0.01%	4.06%	ENYSDSEEEDDDDVASSR	R	Q	95.00%	4.06	0.61	0	1	0	0	2	2,141.73	256	273	TRUE	
SNU216_PC2_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	5	5	5	0.03%	5.79%	AQGEPVAGHESPK	R	I	95.00%	2.64	0.473	0	1	0	0	2	1,386.61	789	801	TRUE	
SNU216_PC2_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	5	5	5	0.03%	5.79%	AQGEPVAGHESPKIPYEK	R	Q	95.00%	4.27	0.529	0	1	0	0	2	2,016.94	789	806	TRUE	
SNU216_PC2_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	5	5	5	0.03%	5.79%	DSDQVAQSDGEESPAAEEQLLGEHIK	K	E	95.00%	4.51	0.377	0	0	1	0	2	2,862.23	520	545	TRUE	
SNU216_PC2_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	5	5	5	0.03%	5.79%	DSDQVAQSDGEESPAAEEQLLGEHIKEEK	K	E	95.00%	4.41	0.324	0	0	0	1	2	3,248.41	520	548	TRUE	
SNU216_PC2_03	SEC31L1 protein	IPI00305152,IPI00746182	133,016.80	100.00%	5	5	5	0.03%	5.79%	EQTLSPTITSGLHNIAR	R	S	95.00%	3.95	0.322	0	0	1	0	2	1,917.94	1159	1175	TRUE	
SNU216_PC2_03	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	3	4	5	0.03%	3.72%	DSGNWDTSGSELSEGELEK	K	R	95.00%	3.53	0.392	0	2	0	0	2	2,119.83	908	926	TRUE	
SNU216_PC2_03	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	3	4	5	0.03%	3.72%	DSGNWDTSGSELSEGELEKR	K	R	85.50%	3.12	0.0577	0	1	0	0	2	2,355.90	908	927	TRUE	
SNU216_PC2_03	Isoform 2 of Pre-mRNA-processing factor 40 hon	IPI00337385,IPI00337386,IP	106,909.00	100.00%	3	4	5	0.03%	3.72%	HKSDSPESDAEREK	R	D	95.00%	3.37	0.343	0	0	1	1	2	1,694.70	863	876	TRUE	
SNU216_PC2_03	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	99.80%	1	1	1	0.01%	2.57%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.46	0.373	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	5	5	0.03%	9.30%	KASPEPPDSAEGALK	R	L	95.00%	4.56	0.51	0	1	1	0	2	1,576.73	545	559	TRUE	
SNU216_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	5	5	0.03%	9.30%	NSSSPVSPASVPGQR	R	R	82.70%	2.15	0.173	0	1	0	0	2	1,549.70	656	670	TRUE	
SNU216_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	5	5	0.03%	9.30%	RPGSVSSTDQER	K	E	95.00%	2.33	0.349	0	1	0	0	2	1,398.60	331	342	TRUE	
SNU216_PC2_03	Protein C14orf4	IPI00019205	82,658.10	100.00%	4	5	5	0.03%	9.30%	TTPPESAPQNGPSPMAALMSVADTLGTAH	R	D	95.00%	5.88	0.498	0	0	1	0	2	3,241.49	610	641	TRUE	
SNU216_PC2_03	DNA-repair protein complementing XP-C cells	IPI00156793	105,851.90	99.90%	2	2	2	0.01%	3.41%	SKPSSSEEDEGPGDKQEK	R	A	95.00%	3.38	0.494	0	0	1	0	2	2,173.76	393	410	TRUE	
SNU216_PC2_03	DNA-repair protein complementing XP-C cells	IPI00156793	105,851.90	99.90%	2	2	2	0.01%	3.41%	VIKDEALSDGDDLR	K	D	90.10%	2.02	0.216	0	1	0	0	2	1,625.74	86	99	TRUE	
SNU216_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	9.94%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.66	0.483	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	9.94%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.12	0.4	0	1	1	0	2	1,914.80	480	498	TRUE	
SNU216_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	9.94%	AKEVELVSE	K	-	80.40%	1.99	0.151	0	1	0	0	2	1,083.50	505	513	TRUE	
SNU216_PC2_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	4	5	5	0.03%	9.94%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.11	0.435	0	0	1	0	2	2,718.29	20	42	TRUE	
SNU216_PC2_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	98.50%	1	1	1	0.01%	2.80%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.45	0.283	0	0	1	0	2	2,020.82	45	61	TRUE	
SNU216_PC2_03	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	2	3	4	0.03%	4.40%	GISPIVFDR	R	S	83.30%	1.74	0.213	0	1	0	0	2	1,083.52	306	314	TRUE	
SNU216_PC2_03	Isoform 1 of YTH domain-containing protein 1	IPI00144293	84,700.60	100.00%	2	3	4	0.03%	4.40%	LSSESHHGGSPIHWVLPAGMSAK	R	M	95.00%	4.14	0.416	0	0	1	2	2	2,465.14	415	437	TRUE	
SNU216_PC2_03	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	2	2	2	0.01%	5.25%	TSSAFVGKTPEASPEPK	K	D	95.00%	3.32	0.421	0	1	0	0	2	1,892.81	303	319	TRUE	
SNU216_PC2_03	Isoform 1 of 26S proteasome non-ATPase regulat	IPI00299608	105,839.20	100.00%	2	2	2	0.01%	5.25%	TVGTPIASVPGSTNTGTVPGSEKDSDSMETI	R	T	95.00%	3.79	0.21	0	0	1	0	2	3,388.50	270	302	TRUE	
SNU216_PC2_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.03%	5.27%	FSAVLVEPPPMSLPGAGLSSQELSGGPGDG	K	-	95.00%	2.91	0.259	0	0	1	0	2	3,030.42	805	835	TRUE	
SNU216_PC2_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.03%	5.27%	SGEGEVSGLMR	R	K	95.00%	2.7	0.44	0	1	0	0	2	1,201.49	473	483	TRUE	
SNU216_PC2_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	3	4	4	0.03%	5.27%	SRSGEGEVSGLMR	R	K	95.00%	2.94	0.405	0	1	1	0	2	1,444.63	471	483	TRUE	
SNU216_PC2_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	2	2	0.01%	10.00%	EESDGEYDEFGR	R	K	95.00%	2.79	0.569	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC2_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	2	2	0.01%	10.00%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	3.62	0.405	0	0	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	7	0.05%	6.45%	EQPEMEDANSEK	R	S	95.00%	2.73	0.433	0	1	0	0	2	1,486.54	11	22	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	7	0.05%	6.45%	EQPEMEDANSEKSINEENGEVSEDQSQNK	R	H	95.00%	3.19	0.421	0	0	1	0	2	3,454.32	11	39	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	7	0.05%	6.45%	EVIDASDKEGMSPAK	K	R	92.60%	2.44	0.188	0	1	0	0	2	1,736.69	82	96	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	7	0.05%	6.45%	EVIDASDKEGMSPAKR	K	T	95.00%	3.38	0.354	0	1	0	0	2	1,812.82	82	97	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	7	0.05%	6.45%	KPIKSPSK	K	D	88.80%	1.76	0.217	0	1	0	0	2	964.5229	324	331	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	7	0.05%	6.45%	SPSPDDILER	R	V	95.00%	1.83	0.28	0	1	0	0	2	1,208.52	578	587	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase PRP4 homolog	IPI00013721	116,978.90	100.00%	7	7	7	0.05%	6.45%	TRSPSPDDILER	R	V	95.00%	2.27	0.269	0	1	0	0	2	1,545.63	576	587	TRUE	
SNU216_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.59%	FLSHSTDSLNK	K	I	95.00%	2.41	0.167	0	1	0	0	2	1,328.59	1929	1939	TRUE	
SNU216_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.59%	NSWIQIIQDTINTLNRDEDEGIPSENEEEKK	R	M	95.00%	3.82	0.165	0	0	1	0	2	3,737.72	2326	2356	TRUE	
SNU216_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.59%	RAETFGGFDSHQMNASK	R	G	95.00%	3.52	0.217	0	0	1	0	2	1,962.82	2468	2484	TRUE	
SNU216_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.59%	SGSLDSELSVSPK	K	R	95.00%	2.51	0.277	0	1	0	0	2	1,385.62	2722	2734	TRUE	
SNU216_PC2_03	A-kinase anchor protein 13 isoform 1	IPI00065931	307,843.70	100.00%	5	5	5	0.03%	2.59%	SGSLDSELSVSPKR	K	N	95.00%	2.58	0.317	0	1	0	0	2	1,541.72	2722	2735	TRUE	
SNU216_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	4	4	0.03%	5.22%	AAKPGPAEAPSPTASPSGDASPPATAPYDPI	R	V	95.00%	4.31	0.141	0	0	1	0	2	3,011.38	1094	1124	TRUE	
SNU216_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	4	4	0.03%	5.22%	EYSPPYAPSHQQYPPSHATPLPK	R	K	95.00%	3.44	0.335	0	0	1	1	2	2,672.22	157	179	TRUE	
SNU216_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00187011	140,259.60	100.00%	3	4	4	0.03%	5.22%	TGSGSPFAGNSPAR	K	E	95.00%	2.16	0.224	0	1	0	0	2	1,465.55	1265	1278	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	99.80%	2	2	2	0.01%	3.39%	ASQSRPNSSALETLGGEK	K	L	95.00%	4.44	0.0335	0	1	0	0	2	1,911.88	447	464	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase 10	IPI00304742	112,750.80	99.80%	2	2	2	0.01%	3.39%	QVAEQGGDLSPAANR	K	S	95.00%	2.61	0.309	0	1	0	0	2	1,592.71	429	443	TRUE	
SNU216_PC2_03	CLN3 protein	IPI00010906	19,287.30	99.80%	2	2	3	0.02%	8.84%	RFSDSEGEETVPEPR	R	L	95.00%	2.47	0.29	0	2	0	0	2	1,894.73	10	24	TRUE	
SNU216_PC2_03	CLN3 protein	IPI00010906	19,287.30	99.80%	2	2	3	0.02%	8.84%	RRFSDSEGEETVPEPR	R	L	95.00%	3.51	0.336	0	0	1	0	2	1,970.86	9	24	TRUE	
SNU216_PC2_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	RVNDAEPGSPEAPQGK	R	R	95.00%	2.78	0.362	0	1	0	0	2	1,731.77	75	90	TRUE	
SNU216_PC2_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	99.80%	2	2	2	0.01%	2.40%	VNDAEPGSPEAPQGK	R	R	95.00%	3.35	0.458	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216_PC2_03	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	2	2	0.01%	4.05%	DLSTSPKPSPIPSPVLGR	K	K	95.00%	2.65	0.293	0	0	1	0	2	1,927.99	389	406	TRUE	
SNU216_PC2_03	EHBP1 protein	IPI00433194	132,325.70	99.80%	2	2	2	0.01%	4.05%	EVQTPQYLNPFDEPEAFVTIKDSPPQSTK	K	R	95.00%	5.8	0.46	0	0	1	0	2	3,385.59	278	306	TRUE	
SNU216_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	3	4	4	0.03%	4.54%	DKASPEPEKDFSEK	K	A	95.00%	3.17	0.341	0	1	1	0	2	1,686.73	684	697	TRUE	
SNU216_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	3	4	4	0.03%	4.54%	SPMSTNSSVHTGSDVEQDAEKK	R	A	90.30%	2.85	0.161	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC2_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	3	4	4	0.03%	4.54%	TPPSTTVGSHSPPETPVLTR	K	S	95.00%	3.15	0.26	0	0	1	0	2	2,141.03	765	784	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	AASPSPQSVR	K	R	95.00%	1.97	0.32	0	2	0	0	2	1,159.45	745	754	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	APQTSSSPPPVRR	R	G	95.00%	2.35	0.265	0	1	0	0	2	1,459.71	699	711	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	EKTPELPEPSVK	K	V	95.00%	3.01	0.43	0	1	1	0	2	1,433.69	218	229	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	HRPSPPATPPPK	R	T	95.00%	2.95	0.374	0	1	4	0	2	1,361.67	394	405	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	KEKTPELPEPSVK	K	V	95.00%	2.47	0.24	0	0	1	0	2	1,561.79	217	229	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	KETESEAEDNLDDLEK	K	H	95.00%	3.7	0.368	0	2	2	0	2	1,944.80	879	894	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	KPPAPPSPVQSQSPSTNWSPAVPVK	K	K	95.00%	4.48	0.472	0	0	1	0	2	2,663.32	772	796	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	7.32	0.156	0	0	3	1	2	2,791.42	772	797	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	KVELSESEEDKGGK	R	M	95.00%	3.01	0.341	0	1	1	0	2	1,614.73	454	467	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	RESPSPAPKPR	K	K	92.10%	1.97	0.234	0	1	0	0	2	1,381.60	443	453	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	SVSGSPEPAAK	R	K	95.00%	2.28	0.424	0	1	0	0	2	1,109.49	761	771	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	TASPPPPPK	R	R	95.00%	1.81	0.383	0	1	0	0	2	1,051.43	623	631	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	TPELPEPSVK	K	V	95.00%	1.99	0.262	0	1	0	0	2	1,176.56	220	229	TRUE	
SNU216_PC2_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	14	21	29	0.19%	16.60%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.22	0.502	0	1	1	1	2	1,977.99	247	263	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Serine/threonine-protein kinase SRPK2	IPI00333420,IPI00396412	79,030.50	100.00%	1	1	1	0.01%	1.74%	TVSASSTGDLPK	R	A	93.80%	2.25	0.186	0	1	0	0	2	1,242.56	503	514	TRUE	
SNU216_PC2_03	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.90%	3	4	4	0.03%	4.29%	RPLSSSHEASEGQAK	K	D	82.00%	1.7	0.285	0	1	0	0	2	1,663.74	173	187	TRUE	
SNU216_PC2_03	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.90%	3	4	4	0.03%	4.29%	SLPITIEMLK	R	V	87.00%	1.9	0.227	0	1	0	0	2	1,224.63	464	473	TRUE	
SNU216_PC2_03	PHACTR4 protein	IPI00217851,IPI00432436,IP	78,213.50	99.90%	3	4	4	0.03%	4.29%	TRSLPITIEMLK	R	V	95.00%	3.09	0.3	0	1	1	0	2	1,481.78	462	473	TRUE	
SNU216_PC2_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	99.60%	2	2	2	0.01%	1.42%	LTPPESQSPLHWLADLAEQK	K	A	84.40%	2.73	0.202	0	0	1	0	2	2,340.13	2000	2019	TRUE	
SNU216_PC2_03	Isoform 1 of Probable JmjC domain-containing hi	IPI00384202	284,523.70	99.60%	2	2	2	0.01%	1.42%	TSPLVSQNNEQGSTLR	R	D	95.00%	3.43	0.373	0	1	0	0	2	1,810.83	2052	2067	TRUE	
SNU216_PC2_03	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	2	2	2	0.01%	3.56%	EGETQGVAFEHESPADFQNSQSPVQDQDK	R	S	95.00%	3.86	0.359	0	0	1	0	2	3,364.33	341	369	TRUE	
SNU216_PC2_03	RNA-binding protein 6	IPI00297723	128,619.00	100.00%	2	2	2	0.01%	3.56%	EKLQSFDSPER	R	K	95.00%	2.57	0.257	0	0	1	0	2	1,415.62	1018	1028	TRUE	
SNU216_PC2_03	Probable ATP-dependent RNA helicase DDX10	IPI00297900	100,891.30	99.80%	2	2	2	0.01%	4.11%	APSLTNDEVEEFR	R	A	95.00%	2.74	0.426	0	1	0	0	2	1,586.67	537	549	TRUE	
SNU216_PC2_03	Probable ATP-dependent RNA helicase DDX10	IPI00297900	100,891.30	99.80%	2	2	2	0.01%	4.11%	QDNDTGNEEQEEEEDDEEEMEEK	R	L	95.00%	3.94	0.376	0	0	1	0	2	2,879.97	573	595	TRUE	
SNU216_PC2_03	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.90%	2	3	3	0.02%	2.60%	AHFNAMFQPSSPTR	R	R	95.00%	4.14	0.491	0	1	1	0	2	1,670.71	894	907	TRUE	
SNU216_PC2_03	Isoform 1 of General transcription factor 3C polyp	IPI00016861	102,017.30	99.90%	2	3	3	0.02%	2.60%	RPGFSPTSHR	R	L	91.80%	1.91	0.218	0	0	1	0	2	1,221.55	908	917	TRUE	
SNU216_PC2_03	HSPC121	IPI00008998	44,424.70	100.00%	2	2	4	0.03%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.76	0.199	0	0	0	1	2	2,901.33	99	121	TRUE	
SNU216_PC2_03	HSPC121	IPI00008998	44,424.70	100.00%	2	2	4	0.03%	6.17%	WLDESDAEMELR	R	A	95.00%	2.61	0.302	0	3	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	SPDEATAADQESEDDLSASR	K	T	95.00%	5.44	0.576	0	1	1	0	2	2,173.84	878	897	TRUE	
SNU216_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	SSSPAPEFLASSPPDNK	K	S	95.00%	3.29	0.377	0	1	0	0	2	1,810.79	861	877	TRUE	
SNU216_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	SSSPAPEFLASSPPDNKSPDEATAADQESED	K	T	95.00%	6.13	0.0614	0	0	1	0	2	3,885.65	861	897	TRUE	
SNU216_PC2_03	Isoform 1 of FERM, RhoGEF and pleckstrin domai	IPI00024773,IPI00746455	118,635.90	100.00%	4	5	5	0.03%	4.98%	VSAGEPGSHPSPAPR	K	R	95.00%	3.72	0.502	0	1	0	0	2	1,525.68	417	431	TRUE	
SNU216_PC2_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	2	2	2	0.01%	4.11%	SPGSNSKVPEIEVTVEGPNNNNPQTSAVR	R	T	95.00%	4.87	0.354	0	0	1	0	2	3,101.45	633	661	TRUE	
SNU216_PC2_03	Isoform 1 of General transcription factor II-I	IPI00054042,IPI00217449,IP	107,971.40	100.00%	2	2	2	0.01%	4.11%	TNTPVKEDWNVR	R	I	95.00%	2.42	0.413	0	1	0	0	2	1,538.70	515	526	TRUE	
SNU216_PC2_03	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.80%	2	2	2	0.01%	2.76%	EREDSGDAEAHAFK	R	S	95.00%	3.46	0.357	0	0	1	0	2	1,641.65	275	288	TRUE	
SNU216_PC2_03	Isoform 1 of Bromodomain-containing protein 7	IPI00001707,IPI00647008	74,268.80	99.80%	2	2	2	0.01%	2.76%	EREDSGDAEAHAFKSPSK	R	E	95.00%	2.86	0.361	0	0	1	0	2	2,040.87	275	292	TRUE	
SNU216_PC2_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	10	0.07%	3.54%	SPSPEPIYNSEGK	R	R	95.00%	2.52	0.4	0	1	0	0	2	1,564.60	204	216	TRUE	
SNU216_PC2_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	10	0.07%	3.54%	SPSPEPIYNSEGK	R	R	95.00%	3.66	0.335	0	0	3	0	2	2,926.25	191	216	TRUE	
SNU216_PC2_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	3	4	10	0.07%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	L	95.00%	3.27	0.316	0	0	3	3	2	3,082.36	191	217	TRUE	
SNU216_PC2_03	Isoform 1 of Roundabout homolog 1 precursor	IPI00219798,IPI00418121,IP	180,927.80	100.00%	1	1	1	0.01%	0.91%	KVPSFTFTPTVTYQR	R	G	95.00%	2.89	0.379	0	1	0	0	2	1,851.90	937	951	TRUE	
SNU216_PC2_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	3.08	0.382	0	2	2	0	2	1,673.69	221	235	TRUE	
SNU216_PC2_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.5	0.23	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216_PC2_03	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	2	2	0.01%	3.86%	DGEQSPNVSLMQR	R	M	95.00%	2.56	0.274	0	1	0	0	2	1,540.65	332	344	TRUE	
SNU216_PC2_03	IQ motif and WD repeats 1 isoform a	IPI00157836,IPI00164246,IP	98,424.30	99.80%	2	2	2	0.01%	3.86%	DSALQDTDDSDDDPVLIPGAR	R	Y	95.00%	3.27	0.389	0	0	1	0	2	2,374.93	668	688	TRUE	
SNU216_PC2_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	4	6	0.04%	1.79%	AEDSDSEPEPEDNVR	K	L	95.00%	2.56	0.268	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC2_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	4	6	0.04%	1.79%	KAEDSDSEPEPEDNVR	R	L	95.00%	4.13	0.457	0	3	0	0	2	1,896.75	495	510	TRUE	
SNU216_PC2_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	3	4	6	0.04%	1.79%	RKAEDSDSEPEPEDNVR	K	L	95.00%	3.44	0.448	0	1	1	0	2	2,132.82	494	510	TRUE	
SNU216_PC2_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.80%	2	2	2	0.01%	1.32%	VASPSQGQVGSSSPK	R	R	95.00%	2.6	0.289	0	1	0	0	2	1,495.68	325	339	TRUE	
SNU216_PC2_03	Isoform Long of Plakophilin-4	IPI00021076,IPI00334400,IP	127,145.30	99.80%	2	2	2	0.01%	1.32%	VASPSQGQVGSSSPKR	R	S	95.00%	3.22	0.303	0	1	0	0	2	1,651.78	325	340	TRUE	
SNU216_PC2_03	Isoform 1 of Probable nucleolar complex protein	IPI00022613,IPI00743803	91,388.00	100.00%	2	2	2	0.01%	3.15%	FGEYNSNMSPEEK	R	M	95.00%	2.51	0.347	0	1	0	0	2	1,611.60	88	100	TRUE	
SNU216_PC2_03	Isoform 1 of Probable nucleolar complex protein	IPI00022613,IPI00743803	91,388.00	100.00%	2	2	2	0.01%	3.15%	HNDIVDSDSDAEDR	K	G	95.00%	2.4	0.293	0	1	0	0	2	1,747.58	140	153	TRUE	
SNU216_PC2_03	Isoform 1 of A kinase anchor protein 1, mitochon	IPI00022585,IPI00158627	62,921.10	99.30%	1	1	1	0.01%	2.33%	DKAITPPLPESTVPFSNGVLK	R	G	86.20%	2.52	0.199	0	0	1	0	2	2,290.17	529	549	TRUE	
SNU216_PC2_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	3	3	0.02%	6.97%	ESESEAKVDGETASDSESR	K	A	95.00%	2.53	0.19	0	1	0	0	2	2,092.82	20	38	TRUE	
SNU216_PC2_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	100.00%	2	3	3	0.02%	6.97%	VAHEPVAPPEDKESESEAK	R	V	95.00%	5.73	0.463	0	1	1	0	2	2,128.94	8	26	TRUE	
SNU216_PC2_03	Staphylococcal nuclease domain-containing prote	IPI00140420	101,998.50	100.00%	1	1	1	0.01%	2.75%	KVNVTVDYIRPASPATETVPAFSER	K	T	87.00%	4.61	0.0662	0	0	1	0	2	2,827.40	414	438	TRUE	
SNU216_PC2_03	Isoform 1 of DNA	IPI00031519	189,570.80	99.90%	1	1	1	0.01%	1.13%	EADDDEEVDDNIPEMPSPK	K	K	95.00%	3.54	0.47	0	1	0	0	2	2,224.85	760	778	TRUE	
SNU216_PC2_03	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	100.00%	2	2	2	0.01%	5.70%	GSIDREDGSLQGPIGNQHIYQPVGKPDPAA	R	K	95.00%	3.91	0.241	0	0	0	1	2	3,518.71	842	874	TRUE	
SNU216_PC2_03	Isoform 1 of Focal adhesion kinase 1	IPI00012885,IPI00413961,IP	119,236.20	100.00%	2	2	2	0.01%	5.70%	QATVSWDSGGSDEAPPKPSRPGYPSPR	R	S	95.00%	3.77	0.301	0	0	0	1	2	2,906.31	698	724	TRUE	
SNU216_PC2_03	OTTHUMP00000022614	IPI00385729,IPI00477436,IP	74,832.20	99.80%	1	1	1	0.01%	3.98%	RADDFPVRDDPSDVTDEDEGPAEPPPPPK	R	L	95.00%	4.65	0.419	0	0	1	0	2	3,320.37	542	570	TRUE	
SNU216_PC2_03	NOL1/NOP2/Sun domain family 2 protein	IPI00306369	86,472.80	100.00%	1	1	1	0.01%	2.61%	ESTQLSPADLTEGKPTDPSK	R	L	95.00%	3.49	0.26	0	0	1	0	2	2,181.00	451	470	TRUE	
SNU216_PC2_03	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	NESEDNKFSDDSDDDFVQPR	R	K	95.00%	2.96	0.306	0	0	1	0	2	2,518.89	983	1002	TRUE	
SNU216_PC2_03	Isoform Short of Transcription intermediary factor	IPI00005184,IPI00184317	113,018.20	99.80%	2	2	2	0.01%	3.74%	SEWLDPSQKSPLHVGETR	K	K	95.00%	2.78	0.344	0	0	1	0	2	2,146.00	768	785	TRUE	
SNU216_PC2_03	Putative RNA methyltransferase NCOA6IP	IPI00291376	96,717.20	100.00%	3	3	3	0.02%	7.49%	DRPHASGTDGDESEEDPPEHKPSK	K	L	95.00%	2.5	0.231	0	0	0	1	2	2,777.07	400	423	TRUE	
SNU216_PC2_03	Putative RNA methyltransferase NCOA6IP	IPI00291376	96,717.20	100.00%	3	3	3	0.02%	7.49%	EYEEDDILASDDPSSIEQYENTR	K	T	95.00%	3.5	0.273	0	0	1	0	2	2,798.12	145	167	TRUE	
SNU216_PC2_03	Putative RNA methyltransferase NCOA6IP	IPI00291376	96,717.20	100.00%	3	3	3	0.02%	7.49%	GIGLDESELDSEAELMR	K	S	95.00%	3.45	0.321	0	1	0	0	2	1,943.83	79	95	TRUE	
SNU216_PC2_03	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	2	2	2	0.01%	1.03%	GSGTASDDEFENLR	R	I	95.00%	2.76	0.311	0	1	0	0	2	1,577.61	1893	1906	TRUE	
SNU216_PC2_03	Isoform 2 of HECT, UBA and WWE domain-contai	IPI00445401,IPI00456919,IP	481,019.20	100.00%	2	2	2	0.01%	1.03%	REESPMDVDQPSPSAQDTQSIASDGTPQGI	R	E	95.00%	6.27	0.121	0	0	1	0	2	3,367.43	3796	3826	TRUE	
SNU216_PC2_03	Isoform 2 of Nuclear factor NF-kappa-B p100 sut	IPI00411715	44,253.60	99.80%	1	1	1	0.01%	7.44%	ASDGSFSLPLKPVISQPIHDSKSPGASNLK	R	I	95.00%	4.75	0.407	0	0	0	1	2	3,157.59	200	229	TRUE	
SNU216_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	3	4	4	0.03%	2.17%	AVVSPPKFVFGSESVK	K	S	95.00%	2.9	0.488	0	0	1	0	2	1,757.89	2507	2522	TRUE	
SNU216_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	3	4	4	0.03%	2.17%	NLFASFPTEESSINYTFKTPEK	K	A	95.00%	3.5	0.317	0	0	1	0	2	2,630.21	2595	2616	TRUE	
SNU216_PC2_03	Ran-binding protein 2	IPI00221325	358,198.20	100.00%	3	4	4	0.03%	2.17%	VGEDEDGSDEEVVHNEDIHFEPIVSLPEVEV	K	S	95.00%	4.39	0.422	0	0	1	1	2	3,670.63	2893	2924	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 1	IPI00304379	88,209.30	99.80%	1	1	1	0.01%	3.82%	REDFQDISVPVQEDELSKVEESSEISPEPK	R	T	95.00%	3.77	0.266	0	0	0	1	2	3,525.62	450	479	TRUE	
SNU216_PC2_03	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.19%	EAALPPVSPLK	R	A	95.00%	2.3	0.241	0	1	0	0	2	1,201.62	1225	1235	TRUE	
SNU216_PC2_03	Isoform B of Eukaryotic translation initiation factc	IPI00479262	175,622.30	100.00%	2	2	2	0.01%	2.19%	ITKPGSIDSNNQLFAPGGRLSWGK	K	G	95.00%	4.47	0.36	0	0	0	1	2	2,623.30	1073	1096	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	AHLSENELEALEK	R	N	95.00%	2.55	0.284	0	1	0	0	2	1,562.71	859	871	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	AHLSENELEALEKNDMEQMK	R	Y	95.00%	4.69	0.282	0	0	1	0	2	2,439.06	859	878	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	GLVAAYSGESDSEEEQER	R	G	95.00%	4.25	0.437	0	2	0	0	2	2,035.81	792	809	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp686E2459	IPI00375731	110,340.00	100.00%	4	4	5	0.03%	5.13%	HRHSPTGPPGFPR	R	D	95.00%	3.04	0.297	0	0	1	0	2	1,522.71	151	163	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	EISDDEAEEEK	K	G	95.00%	3.03	0.435	1	1	0	0	2	1,373.50	223	233	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	EISDDEAEEEKGEK	K	E	95.00%	3.72	0.47	0	1	1	0	2	1,687.66	223	236	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	EKEISDDEAEEEK	R	G	95.00%	2.44	0.35	0	2	2	0	2	1,630.64	221	233	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	EKEISDDEAEEEKGEK	R	E	95.00%	3.92	0.465	0	1	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	EREKEISDDEAEEEK	K	G	95.00%	2.79	0.345	0	1	1	0	2	1,915.78	219	233	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	IEDVGSDEEDDSGK	K	D	95.00%	3.52	0.499	1	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.71	0.466	0	3	1	0	2	1,817.70	249	264	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	8	17	25	0.16%	4.84%	IEDVGSDEEDDSGKDKK	K	K	95.00%	4.04	0.368	0	3	3	1	2	1,945.79	249	265	TRUE	
SNU216_PC2_03	Putative rRNA methyltransferase 3	IPI00217686	96,577.50	100.00%	2	3	3	0.02%	5.19%	ALDISLSSGEEDEGDEEDSTAGTTK	K	Q	95.00%	4.5	0.494	0	1	1	0	2	2,716.03	329	353	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Putative rRNA methyltransferase 3	IPI00217686	96,577.50	100.00%	2	3	3	0.02%	5.19%	GTEASSGTEAATGLEGEEK	K	D	95.00%	3.09	0.422	0	1	0	0	2	1,903.78	594	612	TRUE	
SNU216_PC2_03	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	3	3	0.02%	7.47%	ELEHNAEETYGENDENTDDKNNDGEEQEV	R	D	95.00%	5.6	0.518	0	0	1	0	2	3,602.40	632	661	TRUE	
SNU216_PC2_03	golgi phosphoprotein 4	IPI00004962	81,877.50	100.00%	2	3	3	0.02%	7.47%	GREEHYEEEEEEEEDGAAVAEK	K	S	95.00%	3.94	0.325	0	1	1	0	2	2,644.02	668	689	TRUE	
SNU216_PC2_03	Isoform 1 of Ran-binding protein 3	IPI00026337,IPI00456728,IP	60,209.90	99.80%	1	1	1	0.01%	2.82%	VLSPPKLNEVSSDANR	R	E	95.00%	3.16	0.294	0	0	1	0	2	1,805.88	331	346	TRUE	
SNU216_PC2_03	CD2-associated protein	IPI00412771	71,454.00	99.80%	1	1	1	0.01%	2.03%	FNGGHSPTHSPEK	R	I	95.00%	2.36	0.323	0	1	0	0	2	1,474.61	505	517	TRUE	
SNU216_PC2_03	Isoform 1 of Eukaryotic translation initiation factc	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	ALENGDADEPSFSDPEDFVDDVSEEELLGD'	R	D	95.00%	4.27	0.404	0	0	1	0	2	3,675.56	142	174	TRUE	
SNU216_PC2_03	Isoform 1 of Eukaryotic translation initiation factc	IPI00396370,IPI00719752,IP	99,040.70	100.00%	2	3	3	0.02%	6.27%	SDSRAQAVSEDAGGNEGR	R	A	95.00%	3.41	0.458	0	1	1	0	2	1,885.77	117	134	TRUE	
SNU216_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	8.55%	AAVVTSPPPTTAPHK	R	E	95.00%	2.62	0.358	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	8.55%	EKSPPDQPAVPHPPPSTPIK	K	L	94.00%	2.46	0.22	0	0	1	0	2	2,199.09	598	617	TRUE	
SNU216_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	8.55%	SPGSPVGEGTGSPPK	R	W	95.00%	3.22	0.483	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216_PC2_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	100.00%	4	4	4	0.03%	8.55%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.8	0.445	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC2_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	5.55%	AGTFIAPPVYSNITPYQSHLRSPVR	K	L	95.00%	4.51	0.267	0	0	0	1	2	2,851.43	615	639	TRUE	
SNU216_PC2_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	5.55%	RASQEANLLTLAQK	R	A	95.00%	3.75	0.23	0	0	1	0	2	1,622.83	459	472	TRUE	
SNU216_PC2_03	hypothetical protein LOC91748	IPI00302594	114,989.30	100.00%	3	3	3	0.02%	5.55%	SHESNAPGSAGGQASEKPR	R	E	95.00%	3.97	0.465	0	0	1	0	2	1,946.84	988	1006	TRUE	
SNU216_PC2_03	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	2	2	2	0.01%	4.81%	SESELIDELSEDFDR	R	S	95.00%	3.22	0.389	0	1	0	0	2	1,863.75	342	356	TRUE	
SNU216_PC2_03	calpastatin isoform b	IPI00413492,IPI00465148	74,069.30	100.00%	2	2	2	0.01%	4.81%	SLTPAVPVESKPDKPSGK	K	S	95.00%	2.95	0.353	0	0	1	0	2	1,916.97	111	128	TRUE	
SNU216_PC2_03	Echinoderm microtubule-associated protein-like 4	IPI00001466	108,904.20	100.00%	1	2	3	0.02%	1.63%	ASPSPQPSSQPLQIHR	R	Q	95.00%	4.12	0.408	0	1	2	0	2	1,809.86	143	158	TRUE	
SNU216_PC2_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	99.80%	2	2	2	0.01%	1.46%	ALQHTESPSETNKPHSK	K	S	95.00%	3.04	0.324	0	0	0	1	2	1,970.90	94	110	TRUE	
SNU216_PC2_03	Thyroid receptor-interacting protein 12	IPI00032342	220,438.10	99.80%	2	2	2	0.01%	1.46%	SESPPAELPSLR	R	R	95.00%	1.97	0.29	0	1	0	0	2	1,362.63	310	321	TRUE	
SNU216_PC2_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.70%	2	2	2	0.01%	7.99%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.35	0.407	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC2_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.70%	2	2	2	0.01%	7.99%	SPVSTRPLPSASQK	R	A	94.50%	2.53	0.2	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	5	5	0.03%	6.96%	KRTPNETTSVLEPK	K	K	95.00%	2.77	0.265	0	0	1	0	2	1,679.84	483	496	TRUE	
SNU216_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	5	5	0.03%	6.96%	QRSPIALPVKQEPPQIDAVK	R	R	95.00%	3.8	0.394	0	0	1	1	2	2,294.23	209	228	TRUE	
SNU216_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00165995	92,560.40	100.00%	3	5	5	0.03%	6.96%	SKFDSDEEEEDTENVEAASSGK	R	V	95.00%	5.14	0.531	0	1	1	0	2	2,482.96	286	307	TRUE	
SNU216_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	6	6	0.04%	10.10%	ENHGQADHSPSMTATHFPR	R	V	95.00%	3.75	0.288	0	0	1	1	2	2,199.90	254	272	TRUE	
SNU216_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	6	6	0.04%	10.10%	ERTESEVPPRPASPK	K	V	95.00%	2.37	0.413	0	1	0	0	2	1,759.84	532	546	TRUE	
SNU216_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	6	6	0.04%	10.10%	NSGSSQGLGGSPGSHSHTTMANK	K	V	95.00%	3.48	0.272	0	0	1	0	2	2,278.95	165	187	TRUE	
SNU216_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	6	6	0.04%	10.10%	SPPETAAPVEDMAR	R	R	95.00%	2.58	0.362	0	1	0	0	2	1,550.66	550	563	TRUE	
SNU216_PC2_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	5	6	6	0.04%	10.10%	TESEVPPRPASPK	R	V	95.00%	3.27	0.447	0	1	0	0	2	1,474.69	534	546	TRUE	
SNU216_PC2_03	Isoform Beta of ATP-dependent DNA helicase Q5	IPI00185769	108,859.20	99.80%	2	2	2	0.01%	3.73%	GEVPGGSAHYGGPSPEKK	R	A	95.00%	2.48	0.315	0	1	0	0	2	1,833.82	714	731	TRUE	
SNU216_PC2_03	Isoform Beta of ATP-dependent DNA helicase Q5	IPI00185769	108,859.20	99.80%	2	2	2	0.01%	3.73%	YDEGSGGSGDEGRDEAHKR	R	E	95.00%	2.93	0.301	0	0	1	0	2	2,181.79	484	502	TRUE	
SNU216_PC2_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	99.90%	2	2	3	0.02%	3.15%	HLLTDLPLPPELPGGDLSPPDSPEPK	R	A	95.00%	4.04	0.3	0	0	2	0	2	2,891.35	664	689	TRUE	
SNU216_PC2_03	Cell division cycle 2-related protein kinase 7	IPI00021175	164,159.20	99.90%	2	2	3	0.02%	3.15%	HSSISPVRLPLNSSLGAELSR	R	K	95.00%	3.32	0.376	0	0	1	0	2	2,380.14	381	401	TRUE	
SNU216_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	2	2	0.01%	5.90%	DVDVSEDSPPPLPER	K	T	95.00%	3.01	0.342	0	1	0	0	2	1,731.75	666	680	TRUE	
SNU216_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289082	88,121.60	99.80%	2	2	2	0.01%	5.90%	IADGVNEINTENMISSIEPEKQDSPPPKPPR	K	T	95.00%	5.4	0.449	0	0	0	1	2	3,482.65	309	339	TRUE	
SNU216_PC2_03	Isoform 1 of Peroxisome proliferator-activated rec	IPI00427522	168,441.60	99.80%	1	1	1	0.01%	1.52%	AKSPISSGSGGSHMSGTSSSSGMK	K	S	95.00%	3.52	0.409	0	0	1	0	2	2,291.96	1221	1244	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.70%	2	2	2	0.01%	1.52%	SYSSPDITQAIQEEEK	R	R	88.30%	3.58	0.0219	0	1	0	0	2	1,904.82	716	731	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 8	IPI00030915	127,527.40	99.70%	2	2	2	0.01%	1.52%	SYSSPDITQAIQEEEKR	R	K	93.40%	3.7	0.0356	0	1	0	0	2	2,060.92	716	732	TRUE	
SNU216_PC2_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	DLGHPVEEEDELESGDQEDEDDSEDPGK	K	D	95.00%	5.81	0.527	0	0	1	0	2	3,323.24	929	957	TRUE	
SNU216_PC2_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	DLGHPVEEEDELESGDQEDEDDSEDPGKD	K	-	95.00%	6.1	0.562	0	0	1	0	2	3,916.52	929	962	TRUE	
SNU216_PC2_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	LKDLGHPVEEEDELESGDQEDEDDSEDPG	K	D	95.00%	5.62	0.533	0	0	1	1	2	3,564.42	927	957	TRUE	
SNU216_PC2_03	General vesicular transport factor p115	IPI00743314	107,909.70	100.00%	4	6	6	0.04%	3.74%	LKDLGHPVEEEDELESGDQEDEDDSEDPG	K	-	95.00%	6.8	0.602	0	0	1	1	2	4,157.70	927	962	TRUE	
SNU216_PC2_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	QSVDKVTSPTK	K	-	91.40%	2.25	0.199	0	1	0	0	2	1,269.61	521	531	TRUE	
SNU216_PC2_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.74	0.173	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC2_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	3	4	4	0.03%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.08	0.223	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	6.55	0.473	0	0	2	0	2	3,217.28	668	695	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	ETPHSPGVEDAPIAK	R	V	95.00%	2.92	0.401	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEK	R	N	95.00%	5.75	0.533	0	0	1	0	2	3,126.40	223	250	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.91	0.501	0	0	1	1	2	3,612.62	223	254	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	LRSPPEALVQGR	R	Y	95.00%	3.42	0.312	0	0	1	2	2	1,402.72	130	141	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.99	0.46	0	1	3	1	2	1,980.95	350	366	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.35	0.514	0	0	3	2	2	3,432.41	666	695	TRUE	
SNU216_PC2_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	8	13	21	0.14%	16.50%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	3.7	0.408	0	0	2	0	2	2,105.04	588	606	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	ANSPEKPPEAGAAHKPR	K	A	95.00%	3.96	0.501	0	0	1	1	2	1,836.88	210	226	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSK	K	R	95.00%	2.91	0.303	0	1	0	0	2	1,490.73	234	246	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp434K1815	IPI00069309	70,861.00	100.00%	3	5	5	0.03%	4.79%	RPDDVPLSLSPSKR	K	A	95.00%	2.82	0.311	0	1	1	0	2	1,646.83	234	247	TRUE	
SNU216_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	7	12	0.08%	5.22%	FEDEDSDDVPR	K	K	95.00%	2.29	0.279	0	1	0	0	2	1,403.50	698	708	TRUE	
SNU216_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	7	12	0.08%	5.22%	LGASNSPGQPNSVK	K	R	95.00%	2.49	0.302	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	7	12	0.08%	5.22%	LGASNSPGQPNSVKR	K	K	95.00%	3.04	0.308	0	1	1	0	2	1,591.76	672	686	TRUE	
SNU216_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	7	12	0.08%	5.22%	QEPESEEEEEEKQEK	K	E	95.00%	3.14	0.462	0	3	1	0	2	1,956.76	579	593	TRUE	
SNU216_PC2_03	RNA binding motif protein 25	IPI00004273	100,189.10	100.00%	5	7	12	0.08%	5.22%	QEPESEEEEEEKQEKEEK	K	R	95.00%	4.06	0.442	0	0	4	0	2	2,342.94	579	596	TRUE	
SNU216_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	148,858.30	100.00%	7	8	11	0.07%	7.83%	ALGGEDSENEEELGDEAMMALDQSLASLFA	K	L	95.00%	7.22	0.634	0	0	2	0	2	3,607.53	769	801	TRUE	
SNU216_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	148,858.30	100.00%	7	8	11	0.07%	7.83%	DPAQPMSPGEATQSGAR	R	P	95.00%	3.22	0.442	0	1	0	0	2	1,779.74	5	21	TRUE	
SNU216_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	148,858.30	100.00%	7	8	11	0.07%	7.83%	DPAQPMSPGEATQSGARPADR	R	Y	95.00%	2.99	0.298	0	0	1	0	2	2,218.96	5	25	TRUE	
SNU216_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	148,858.30	100.00%	7	8	11	0.07%	7.83%	EIPSATQSPISK	K	K	95.00%	2.54	0.298	0	1	0	0	2	1,337.64	1156	1167	TRUE	
SNU216_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	148,858.30	100.00%	7	8	11	0.07%	7.83%	KNQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	3.78	0.361	0	0	2	0	2	2,300.10	1254	1275	TRUE	
SNU216_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	148,858.30	100.00%	7	8	11	0.07%	7.83%	NQKPSQVNGAPGSPTEPAGQK	K	Q	95.00%	4.07	0.436	0	1	2	0	2	2,172.01	1255	1275	TRUE	
SNU216_PC2_03	Isoform 1 of Myb-binding protein 1A	IPI00005024,IPI00607584	148,858.30	100.00%	7	8	11	0.07%	7.83%	SPAPGAPTRSPSTPAK	K	S	95.00%	2.77	0.466	0	1	0	0	2	1,601.77	1232	1247	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	AEGEPQEESPLKSK	K	S	95.00%	2.83	0.355	0	1	0	0	2	1,608.72	169	182	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	AEGEWEDQEALDVFSDKESGK	R	Q	95.00%	4.45	0.428	0	1	0	0	2	2,513.00	371	391	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	DLFDYSPPLHK	K	N	92.20%	2.2	0.194	0	1	0	0	2	1,411.63	507	517	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	ETQSPEQVKSEK	K	L	95.00%	3.41	0.465	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.25	0.603	0	3	0	0	2	2,001.69	394	409	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	FNDSEGDDTEETEDYRQFR	K	K	95.00%	3.45	0.318	0	0	1	0	2	2,432.92	394	412	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.81	0.46	0	0	4	1	2	2,726.13	369	391	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	KAEGEPQEESPLK	K	S	95.00%	3.64	0.39	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	KAEGEPQEESPLKSK	K	S	95.00%	4.43	0.534	0	1	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	KETQSPEQVKSEK	K	L	95.00%	3.02	0.297	0	1	1	0	2	1,597.75	492	504	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	LKDLFDYSPPLHK	K	N	95.00%	2.61	0.234	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	NTPSQHSHSIQHSPER	K	S	95.00%	2.99	0.339	0	1	1	0	2	1,921.83	256	271	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.63	0.504	0	1	2	0	2	2,257.84	392	409	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	4.59	0.462	0	0	1	0	2	2,903.23	181	204	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	SSATSGDIWPGLSAYDNSPR	K	S	95.00%	4.54	0.484	0	1	1	0	2	2,160.92	205	224	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	YSPSQNSPIHHIPSR	R	R	95.00%	3.07	0.352	0	0	1	1	2	1,799.82	284	298	TRUE	
SNU216_PC2_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	17	24	30	0.20%	17.30%	YSPSQNSPIHHIPSRR	R	S	95.00%	3.46	0.374	0	0	0	1	2	1,955.92	284	299	TRUE	
SNU216_PC2_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQK	K	G	95.00%	3.04	0.433	0	1	0	0	2	1,473.75	596	608	TRUE	
SNU216_PC2_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	2	2	0.01%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	3.54	0.2	0	0	0	1	2	3,011.63	596	623	TRUE	
SNU216_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	4	4	0.03%	10.40%	ETSVSKEDTDHEEK	K	A	95.00%	2.54	0.237	0	0	1	0	2	1,713.69	114	127	TRUE	
SNU216_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	4	4	0.03%	10.40%	ETSVSKEDTDHEEKASNEDVTK	K	A	86.70%	3.32	0.141	0	0	0	1	2	2,558.08	114	135	TRUE	
SNU216_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	4	4	0.03%	10.40%	QSNASSDVEVEEK	K	E	95.00%	3.31	0.301	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216_PC2_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	4	4	4	0.03%	10.40%	TGVTSTSDSEEEGDDQEGEK	K	K	95.00%	3.91	0.0545	0	1	0	0	2	2,259.77	267	286	TRUE	
SNU216_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	2	2	2	0.01%	5.22%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	6.04	0.0181	0	1	0	0	2	2,518.19	149	170	TRUE	
SNU216_PC2_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	2	2	2	0.01%	5.22%	SPGAPGPLTLK	R	E	95.00%	1.92	0.427	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216_PC2_03	Isoform 1 of Dynamin-2	IPI00033022,IPI00181352,IP	98,024.70	100.00%	1	1	1	0.01%	4.48%	EALNIIGDISTSTVSTPVPPPVDDTWLQSASS	K	R	94.20%	7.34	-0.0026	0	0	1	0	2	4,181.01	731	769	TRUE	
SNU216_PC2_03	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	41,802.00	99.80%	2	3	3	0.02%	3.67%	ELQQAELPNRSPGFGIK	R	K	95.00%	3.03	0.172	0	0	1	0	2	1,963.96	316	332	TRUE	
SNU216_PC2_03	Huntingtin interacting protein C, isoform 1	IPI00386110,IPI00465345,IP	41,802.00	99.80%	2	3	3	0.02%	3.67%	GSPSSHLLGADHGLR	R	K	95.00%	3.48	0.414	0	1	1	0	2	1,583.73	257	271	TRUE	
SNU216_PC2_03	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.80%	2	2	2	0.01%	6.73%	TDGSISGDRQPVTVADYISR	R	A	95.00%	2.82	0.205	0	0	1	0	2	2,296.98	598	617	TRUE	
SNU216_PC2_03	Fragile X mental retardation syndrome-related pr	IPI00016250	77,072.40	99.80%	2	2	2	0.01%	6.73%	TVMDGGLESDGPNMTENGLEDESRPQR	R	R	95.00%	4.28	0.308	0	0	1	0	2	3,014.25	558	584	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	3	0.02%	7.72%	NHSVNEEEQEEQGEGSEDEWEQVGPR	K	N	95.00%	4.88	0.623	0	1	1	0	2	3,107.21	566	591	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 10	IPI00291946	87,692.40	100.00%	2	3	3	0.02%	7.72%	SWASLFHDSKPSSSSPVAYVETKYSPPAISPL	K	Q	85.50%	5.86	0.0225	0	0	0	1	2	3,958.92	346	381	TRUE	
SNU216_PC2_03	Isoform 1 of Connector enhancer of kinase suppr	IPI00299824,IPI00451417	78,790.30	99.80%	2	2	3	0.02%	4.72%	KIPIPETPPQTPPQVLDSPHQR	K	S	95.00%	3.47	0.226	0	0	0	1	2	2,715.23	276	297	TRUE	
SNU216_PC2_03	Isoform 1 of Connector enhancer of kinase suppr	IPI00299824,IPI00451417	78,790.30	99.80%	2	2	3	0.02%	4.72%	SPSLSLAPLSPR	R	A	95.00%	2.37	0.357	0	2	0	0	2	1,304.66	298	309	TRUE	
SNU216_PC2_03	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	3	0.02%	6.13%	GLVAAYSGDSDNEEELVER	R	L	95.00%	4.69	0.533	0	1	0	0	2	2,132.90	615	633	TRUE	
SNU216_PC2_03	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	3	0.02%	6.13%	GLVAAYSGDSDNEEELVERLESEEEK	R	L	95.00%	4.66	0.453	0	0	1	0	2	2,977.28	615	640	TRUE	
SNU216_PC2_03	RNA-binding protein 5	IPI00005036	92,156.10	100.00%	3	3	3	0.02%	6.13%	SEDGYHSDGDYGEHDYRHDISDER	R	E	95.00%	3.94	0.423	0	0	0	1	2	2,934.09	72	95	TRUE	
SNU216_PC2_03	KIAA0082	IPI00166153	95,324.00	100.00%	1	1	1	0.01%	1.92%	ASTTSLSGSDSETEGK	K	Q	95.00%	2.6	0.294	0	1	0	0	2	1,636.66	45	60	TRUE	
SNU216_PC2_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	5	7	0.05%	5.57%	MSSPEDDSDTKR	K	L	95.00%	2.36	0.405	0	3	0	0	2	1,527.51	382	393	TRUE	
SNU216_PC2_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	5	7	0.05%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDR	K	K	95.00%	6.12	0.343	0	0	1	0	2	2,928.28	227	252	TRUE	IPI00005648
SNU216_PC2_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	5	7	0.05%	5.57%	SEPVKEESSELEQPFAQDTSSVGPDRK	K	L	95.00%	6.95	0.499	0	0	1	0	2	3,056.37	227	253	TRUE	IPI00005648
SNU216_PC2_03	103 kDa protein	IPI00646058	102,769.00	100.00%	4	5	7	0.05%	5.57%	SVVSFDKVKEPR	R	K	95.00%	2.59	0.345	0	1	1	0	2	1,470.74	601	612	TRUE	
SNU216_PC2_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	3	3	0.02%	4.25%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	5.95	0.54	0	0	1	1	2	3,538.48	736	766	TRUE	
SNU216_PC2_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	100.00%	2	3	3	0.02%	4.25%	SHILEDDENSVDISMLK	R	T	95.00%	4.59	0.53	0	1	0	0	2	2,024.89	251	267	TRUE	
SNU216_PC2_03	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	P	95.00%	4.82	0.628	0	0	1	0	2	3,332.21	541	570	TRUE	
SNU216_PC2_03	UNC93 homolog B1	IPI00008490	66,633.10	99.80%	2	3	3	0.02%	6.70%	YLEEDNSDESDAEGEHGDGAEEEAPPAGPR	R	R	95.00%	3.94	0.362	0	0	1	1	2	4,263.69	541	580	TRUE	
SNU216_PC2_03	Zinc finger protein 592	IPI00022460	137,553.70	99.80%	2	2	2	0.01%	4.50%	HGLTSGSASPPPPALPLYPDPVR	K	L	95.00%	4.88	0.393	0	0	1	0	2	2,406.19	683	705	TRUE	
SNU216_PC2_03	Zinc finger protein 592	IPI00022460	137,553.70	99.80%	2	2	2	0.01%	4.50%	RLLGPAPEDDGGHNDHSQPQASQDQDSH	R	-	95.00%	4.81	0.35	0	0	0	1	2	3,713.62	1234	1267	TRUE	
SNU216_PC2_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	1.97%	GHKHEDGTQSDSEDPLAK	K	A	82.80%	2.94	0.189	0	0	1	0	2	2,030.85	281	298	TRUE	
SNU216_PC2_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	1.97%	HEDGTQSDSEDPLAK	K	A	95.00%	2.76	0.411	0	1	0	0	2	1,708.67	284	298	TRUE	
SNU216_PC2_03	KIAA0284 protein	IPI00180625	163,628.60	100.00%	3	3	3	0.02%	1.97%	RRSPQEGPTWSR	R	G	95.00%	2.99	0.216	0	0	1	0	2	1,536.71	700	711	TRUE	
SNU216_PC2_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.03%	6.35%	ALAEEASEEELPSDVDLNDPYFAEEVK	K	Q	95.00%	4.05	0.489	0	0	2	0	2	3,089.34	651	677	TRUE	
SNU216_PC2_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.03%	6.35%	DGTSPEEEIEIER	K	Q	95.00%	2.48	0.443	0	1	0	0	2	1,583.65	691	703	TRUE	
SNU216_PC2_03	ABT1-associated protein	IPI00024167	98,800.70	100.00%	3	3	4	0.03%	6.35%	TLDSGTSEIVKSPR	R	I	95.00%	3.16	0.379	0	1	0	0	2	1,569.75	187	200	TRUE	
SNU216_PC2_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	HEHPPNPPVSPGK	R	T	95.00%	2.89	0.344	0	0	1	0	2	1,472.67	664	676	TRUE	
SNU216_PC2_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	MESSFGSPSKQESSESLPK	K	E	95.00%	4.14	0.237	0	0	1	0	2	2,121.90	471	489	TRUE	
SNU216_PC2_03	activating transcription factor 7 interacting protei	IPI00419693	136,392.90	100.00%	3	3	3	0.02%	2.60%	RHEHPPNPPVSPGK	K	T	95.00%	2.62	0.242	0	0	1	0	2	1,628.77	663	676	TRUE	
SNU216_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	7	7	0.05%	10.40%	DRSSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	3.2	0.32	0	0	1	1	2	2,755.34	361	384	TRUE	
SNU216_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	7	7	0.05%	10.40%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	4.27	0.454	0	1	1	0	2	2,253.98	444	462	TRUE	
SNU216_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	7	7	0.05%	10.40%	SNPKSPQKPIVR	R	V	95.00%	2.55	0.195	0	0	1	0	2	1,430.75	147	158	TRUE	
SNU216_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	7	7	0.05%	10.40%	SRWSGSHQFEQLSGSILWMAPEVIR	K	M	95.00%	6.27	0.458	0	0	1	0	2	2,981.41	602	626	TRUE	
SNU216_PC2_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	100.00%	5	7	7	0.05%	10.40%	SSSAPNVHINTIEPVNIDDLIR	R	D	95.00%	4.36	0.358	0	0	1	0	2	2,484.21	363	384	TRUE	
SNU216_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	117,269.90	100.00%	2	2	2	0.01%	2.28%	QTELFAHFIQPSAQKSPTSPLNMK	K	L	95.00%	5.87	0.471	0	0	1	0	2	2,780.35	80	103	TRUE	
SNU216_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00216046,IPI00552298,IP	117,269.90	100.00%	2	2	2	0.01%	2.28%	SPTSPLNMK	K	L	95.00%	1.95	0.361	0	1	0	0	2	1,054.46	95	103	TRUE	
SNU216_PC2_03	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	3	3	0.02%	2.78%	LKGNKHDDGTQSDSENAGAHR	R	R	95.00%	2.49	0.39	0	0	1	1	2	2,317.00	369	389	TRUE	
SNU216_PC2_03	KARP-1-binding protein	IPI00186194	175,439.10	99.80%	2	3	3	0.02%	2.78%	QGSFTIEKPSPNIPIELIPHINK	R	Q	95.00%	3.45	0.163	0	0	1	0	2	2,652.38	837	859	TRUE	
SNU216_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	9	13	0.09%	11.60%	KPGPPLSPEIR	R	S	95.00%	2.17	0.38	0	0	1	0	2	1,270.66	421	431	TRUE	
SNU216_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	9	13	0.09%	11.60%	KPSGSPDLWKLSPDQR	R	K	95.00%	2.8	0.339	0	1	2	0	2	1,970.88	441	456	TRUE	
SNU216_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	9	13	0.09%	11.60%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.56	0.429	0	0	3	1	2	2,526.21	280	301	TRUE	
SNU216_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	9	13	0.09%	11.60%	KTSPASLDFPESQK	R	S	95.00%	3.27	0.484	0	1	1	0	2	1,614.74	457	470	TRUE	
SNU216_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	9	13	0.09%	11.60%	LAPVPSPEPQKPAPVSPESVK	K	A	95.00%	4.79	0.531	0	0	2	0	2	2,314.11	199	219	TRUE	
SNU216_PC2_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	6	9	13	0.09%	11.60%	TAPTLSPEHWK	K	A	95.00%	2.68	0.3	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216_PC2_03	sarcolemma associated protein	IPI00030531	93,205.10	99.80%	1	1	1	0.01%	1.48%	ESDFSDTLSPSK	K	E	95.00%	2.5	0.284	0	1	0	0	2	1,392.56	427	438	TRUE	
SNU216_PC2_03	Isoform 1 of RalBP1-associated Eps domain-conta	IPI00337530,IPI00337532	80,769.20	99.60%	1	1	1	0.01%	2.02%	MTPSKIHMQEMELKR	R	T	95.00%	3.29	0.273	0	0	0	1	2	1,938.90	406	420	TRUE	
SNU216_PC2_03	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	WVEENIPSSFTDVALPVLVDSDEEIMTR	K	S	95.00%	5.14	0.167	0	0	1	0	2	3,271.51	515	542	TRUE	
SNU216_PC2_03	CDNA FLJ14681 fis, clone NT2RP2004270, weakly	IPI00064382	63,625.30	99.80%	2	2	2	0.01%	10.30%	YAFMPLIDDSDDEIEEFMVTSENLTEGIK	R	L	95.00%	5.21	0.497	0	0	1	0	2	3,431.48	461	489	TRUE	
SNU216_PC2_03	Kinase-like protein	IPI00102059	89,631.90	100.00%	2	3	3	0.02%	6.68%	DVHAASSPGMGGAAASWAGWAVTGVSSI	K	L	95.00%	4.75	0.606	0	0	1	0	2	2,996.36	553	583	TRUE	
SNU216_PC2_03	Kinase-like protein	IPI00102059	89,631.90	100.00%	2	3	3	0.02%	6.68%	PSTQPRPDSWGEDNWEGLETDSR	R	Q	95.00%	4.47	0.459	0	1	1	0	2	2,739.13	746	768	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	2	2	0.01%	1.40%	RDSDGVDGFEAEGK	R	K	95.00%	3.58	0.445	0	1	0	0	2	1,561.62	1052	1065	TRUE	
SNU216_PC2_03	zinc finger RNA binding protein	IPI00333858	117,011.80	100.00%	2	2	2	0.01%	1.40%	RRDSDGVDGFEAEGK	R	K	95.00%	2.9	0.28	0	0	1	0	2	1,717.72	1051	1065	TRUE	
SNU216_PC2_03	Importin beta-3	IPI00329200	126,524.70	100.00%	1	2	2	0.01%	3.47%	TASIKPEVALLDTQDMENMSDDDGWEFVN	K	T	95.00%	5.69	0.528	0	0	1	1	2	4,423.96	651	689	TRUE	
SNU216_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.80%	2	3	4	0.03%	5.32%	IEIIQPLLDMAAGTSNAAPVAENVTNNEGSI	K	V	95.00%	6.55	0.433	0	0	2	1	2	3,734.84	125	160	TRUE	
SNU216_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00181702,IPI00397794	123,642.50	99.80%	2	3	4	0.03%	5.32%	KPENEVAQNGGAETSHTEPVSPIPK	K	P	95.00%	3.52	0.386	0	0	1	0	2	2,696.26	636	660	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	18	0.12%	5.94%	DGDSYDPYDFSDTEEEMPQVHTPK	K	T	95.00%	5.42	0.481	0	2	2	0	2	2,882.10	701	724	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	18	0.12%	5.94%	KRSEDESETEDEEEK	K	S	95.00%	3.45	0.326	0	1	1	0	2	1,919.74	666	680	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	18	0.12%	5.94%	RSEDESETEDEEEK	K	S	95.00%	4.13	0.398	0	2	0	0	2	1,791.64	667	680	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	18	0.12%	5.94%	RSEDESETEDEEEKSQEDQEQK	K	R	95.00%	2.99	0.313	0	0	1	0	2	2,844.03	667	688	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	18	0.12%	5.94%	SEDESETEDEEEK	R	S	95.00%	2.21	0.572	0	2	0	0	2	1,715.51	668	680	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	18	0.12%	5.94%	SEDESETEDEEEKSQEDQEQK	R	R	95.00%	5.66	0.551	0	1	2	0	2	2,607.96	668	688	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM3	IPI00013214	90,982.60	100.00%	7	11	18	0.12%	5.94%	SEDESETEDEEEKSQEDQEQKR	R	K	95.00%	5.16	0.546	0	0	3	1	2	2,764.06	668	689	TRUE	
SNU216_PC2_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	7	8	0.05%	9.17%	AAKLSEGSQPAEEEEDQETPSR	R	N	95.00%	4.37	0.427	0	0	1	0	2	2,468.05	236	257	TRUE	
SNU216_PC2_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	7	8	0.05%	9.17%	AESPAEKVPEESVLPLVQK	K	S	95.00%	4.01	0.386	0	0	1	0	2	2,130.07	488	506	TRUE	
SNU216_PC2_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	7	8	0.05%	9.17%	GVPAGNSDTEGGQPGR	K	K	95.00%	2.45	0.286	0	1	0	0	2	1,578.65	832	847	TRUE	
SNU216_PC2_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	7	8	0.05%	9.17%	SLIPDIKPLAGQEAVVDLHADDSRISEDETER	K	N	95.00%	5.9	0.436	0	0	0	1	2	3,598.73	873	904	TRUE	
SNU216_PC2_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	7	8	0.05%	9.17%	SLSPGVSR	K	D	95.00%	1.34	0.381	0	1	0	0	2	962.3744	655	662	TRUE	
SNU216_PC2_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	7	8	0.05%	9.17%	SSSISEEKGDSDDEKPR	K	K	95.00%	3.25	0.483	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC2_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	100.00%	7	7	8	0.05%	9.17%	TAQVPSPPR	R	G	95.00%	2.29	0.412	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC2_03	Major vault protein	IPI00000105	99,194.80	100.00%	1	1	1	0.01%	3.59%	VASGPSPGEGISPQSAQAPQAPGDNHVVP	R	-	95.00%	4.83	0.391	0	0	1	0	2	3,199.55	861	892	TRUE	
SNU216_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	12	0.08%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHK	K	R	95.00%	5.57	0.455	0	0	4	0	2	3,291.30	348	375	TRUE	
SNU216_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	12	0.08%	12.40%	GDMSDEDDENEFFDAPEIITMPENLGHKR	K	T	95.00%	5.55	0.41	0	0	1	1	2	3,431.41	348	376	TRUE	
SNU216_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	12	0.08%	12.40%	MLAESDESGDEESVSQTDK	K	T	95.00%	3.59	0.465	0	1	0	0	2	2,216.78	186	204	TRUE	
SNU216_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	12	0.08%	12.40%	MLAESDESGDEESVSQTDKTELQNTLR	K	T	95.00%	4.81	0.442	0	0	3	0	2	3,172.29	186	212	TRUE	
SNU216_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	12	0.08%	12.40%	SLSELESLKLPAESNEK	R	I	95.00%	2.63	0.314	0	1	0	0	2	1,953.94	238	254	TRUE	
SNU216_PC2_03	Oxysterol-binding protein 1	IPI00024971	89,422.40	100.00%	6	7	12	0.08%	12.40%	TGSNISGASSDISLDEQYKHQLEETKK	R	E	95.00%	3.67	0.214	0	0	0	1	2	3,045.41	377	403	TRUE	
SNU216_PC2_03	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.80%	2	2	2	0.01%	4.36%	ARGSPHFQHAEVR	R	I	95.00%	2.54	0.328	0	0	1	0	2	1,571.72	233	245	TRUE	
SNU216_PC2_03	Isoform 2 of Angiomotin-like protein 2	IPI00032236,IPI00478030	85,821.60	99.80%	2	2	2	0.01%	4.36%	QAGAPGGSSGSGGSPELSALR	R	L	95.00%	3.52	0.0709	0	1	0	0	2	1,922.86	527	547	TRUE	
SNU216_PC2_03	Meningioma-expressed antigen 5s splice variant	IPI00465449,IPI00477231	102,917.50	100.00%	1	2	2	0.01%	3.40%	LENEGSDEDIETDVLYSPQMALK	K	L	95.00%	5.77	0.554	0	1	1	0	2	2,676.16	359	381	TRUE	
SNU216_PC2_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	5	0.03%	6.79%	HSTSPSLDSEYNEELNEDDSQSDEKDQDAII	R	K	95.00%	6.69	0.438	0	0	0	1	2	4,265.74	1084	1120	TRUE	
SNU216_PC2_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	5	0.03%	6.79%	IIYDSDSESEETLQVK	R	N	91.60%	3.95	0.004	0	2	0	0	2	1,935.85	65	80	TRUE	
SNU216_PC2_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	100.00%	3	3	5	0.03%	6.79%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	5.5	0.515	0	0	2	0	2	2,798.45	152	176	TRUE	
SNU216_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.03%	3.07%	EKEVDGLLTSEPMGSPVSSK	K	T	95.00%	4.35	0.0915	0	1	0	0	2	2,170.00	580	599	TRUE	
SNU216_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.03%	3.07%	EVDGLLTSEPMGSPVSSK	K	T	95.00%	2.54	0.234	0	1	1	0	2	1,912.86	582	599	TRUE	
SNU216_PC2_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	100.00%	3	4	4	0.03%	3.07%	QGSGRESPSLASR	R	E	95.00%	2.3	0.312	0	1	0	0	2	1,411.63	333	345	TRUE	
SNU216_PC2_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	100.00%	3	3	3	0.02%	5.24%	VTPQEEADSDVGEEPDSENTPQK	K	A	95.00%	4.04	0.428	0	1	0	0	2	2,581.05	120	142	TRUE	
SNU216_PC2_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	100.00%	3	3	3	0.02%	5.24%	VTPQEEADSDVGEEPDSENTPQKADK	K	D	95.00%	4.59	0.293	0	0	1	0	2	2,895.21	120	145	TRUE	
SNU216_PC2_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00384357,IPI00413785	79,401.80	100.00%	3	3	3	0.02%	5.24%	VTPQEEADSDVGEEPDSENTPQKADKDAGI	K	L	95.00%	6.61	0.544	0	0	0	1	2	4,084.79	120	157	TRUE	
SNU216_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	6.14%	AYTPVVVTLWYR	K	A	95.00%	2.67	0.287	0	1	0	0	2	1,547.77	593	604	TRUE	
SNU216_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	6.14%	GTSPRPPEGGLGYSQLGDDDLK	K	E	95.00%	3.49	0.251	0	0	1	0	2	2,339.06	750	771	TRUE	
SNU216_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	6.14%	RDSLEEGELR	K	D	95.00%	2.41	0.268	0	1	1	0	2	1,283.56	45	54	TRUE	
SNU216_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	6.14%	RDSLEEGELRDHR	K	M	91.20%	2.11	0.209	0	0	0	1	2	1,691.75	45	57	TRUE	
SNU216_PC2_03	Isoform SV1 of PITSLRE serine/threonine-protein I	IPI00071185,IPI00071188,IP	92,709.00	100.00%	5	6	6	0.04%	6.14%	RGTSPRPPEGGLGYSQLGDDDLK	K	E	79.60%	2.75	0.228	0	0	1	0	2	2,495.16	749	771	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.20%	2	2	2	0.01%	2.71%	APSPPLSQVFQTR	R	A	95.00%	2.02	0.28	0	1	0	0	2	1,507.73	538	550	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 4E nuclear	IPI00291800,IPI00414095,IP	105,551.30	99.20%	2	2	2	0.01%	2.71%	SSPVESLKK	R	E	84.90%	1.69	0.228	0	1	0	0	2	1,054.52	77	85	TRUE	
SNU216_PC2_03	Similar to phospholipase C, beta 3 (Fragment)	IPI00010400,IPI00181283	138,802.70	99.90%	1	1	1	0.01%	1.68%	RPPGPTTSPASTSLSSPGQR	R	D	95.00%	3.72	0.399	0	0	1	0	2	2,060.98	919	938	TRUE	
SNU216_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.03%	5.77%	RYEDDGISDDEIEGK	R	R	95.00%	2.54	0.178	0	1	0	0	2	1,820.72	21	35	TRUE	
SNU216_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.03%	5.77%	SSPGAGPSDHHSASRDER	R	F	95.00%	3.2	0.403	0	0	0	1	2	1,929.78	739	756	TRUE	
SNU216_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.03%	5.77%	TPQRGDEEGLGGEEEEEEEEEEDDSAEEGC	R	L	95.00%	8	0.712	0	0	1	0	2	3,773.42	844	877	TRUE	
SNU216_PC2_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	100.00%	4	4	4	0.03%	5.77%	YEDDGISDDEIEGK	R	R	95.00%	2.31	0.396	0	1	0	0	2	1,664.62	22	35	TRUE	
SNU216_PC2_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	99.80%	2	2	2	0.01%	3.64%	SNMSPHGLPAR	K	S	95.00%	3.11	0.343	0	0	1	0	2	1,246.54	446	456	TRUE	
SNU216_PC2_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	99.80%	2	2	2	0.01%	3.64%	VAPVINNGSPTILGK	K	R	95.00%	2.83	0.329	0	1	0	0	2	1,559.82	568	582	TRUE	
SNU216_PC2_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	6.90%	ADIPVKSSPQAAVPYKK	K	D	95.00%	3.06	0.305	0	0	1	0	2	1,878.97	601	617	TRUE	
SNU216_PC2_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	6.90%	LMHNASDSEVDQDDVVEWK	K	D	95.00%	4.06	0.392	0	1	1	0	2	2,296.94	948	966	TRUE	
SNU216_PC2_03	Activity-dependent neuroprotector	IPI00022215	123,564.30	100.00%	3	4	4	0.03%	6.90%	LSNPQIEWQNSTIDSEDGEQFDNMTDGVA	R	L	95.00%	6.01	0.0926	0	0	0	1	2	4,426.91	1057	1096	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	4	5	5	0.03%	8.93%	FHDTSSPLLISGTSAAELPWAVKPEDK	R	A	95.00%	6.64	0.0462	0	0	1	0	2	2,976.44	103	129	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	4	5	5	0.03%	8.93%	LNDPFQPFPGNDSPK	K	E	95.00%	3.05	0.328	0	1	0	0	2	1,752.76	668	682	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	4	5	5	0.03%	8.93%	NIIGSSPVADFSAIK	K	E	95.00%	2.46	0.29	0	1	0	0	2	1,598.78	319	333	TRUE	
SNU216_PC2_03	Epidermal growth factor receptor substrate 15	IPI00292134,IPI00385325	83,656.90	100.00%	4	5	5	0.03%	8.93%	SSPELLPSGVTDENEVTTAVTEK	R	V	95.00%	4.01	0.235	0	1	1	0	2	2,483.14	428	450	TRUE	
SNU216_PC2_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.92%	GGSISVQVNSIKFDSE	R	-	95.00%	2.79	0.189	0	1	0	0	2	1,746.79	694	709	TRUE	
SNU216_PC2_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.92%	SPAVKPAAAPK	K	Q	95.00%	1.94	0.367	0	1	0	0	2	1,116.58	407	417	TRUE	
SNU216_PC2_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	3	3	3	0.02%	5.92%	VAGGAAPSKPASAKK	K	G	87.10%	2.61	0.182	0	0	1	0	2	1,419.74	507	521	TRUE	
SNU216_PC2_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	1	1	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	95.00%	6.25	0.0482	0	0	1	0	2	3,940.73	145	179	TRUE	
SNU216_PC2_03	Golgi autoantigen, golgin subfamily A member 2	IPI00413895,IPI00478549	111,651.40	100.00%	1	1	1	0.01%	1.00%	NSPGVPTGAK	R	K	81.70%	1.74	0.244	0	1	0	0	2	1,007.46	24	33	TRUE	
SNU216_PC2_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	6	6	6	0.04%	7.56%	ASPSSPGRQDSDEDDGPQR	K	V	95.00%	2.8	0.218	0	0	1	0	2	2,080.82	121	139	TRUE	
SNU216_PC2_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	6	6	6	0.04%	7.56%	HAQRSPEASQTDSPVESPR	R	L	95.00%	4.56	0.437	0	0	1	0	2	2,158.95	348	366	TRUE	
SNU216_PC2_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	6	6	6	0.04%	7.56%	RSPGGGSEANGLALVSGFK	R	R	95.00%	3.16	0.282	0	0	1	0	2	1,883.90	182	200	TRUE	
SNU216_PC2_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	6	6	6	0.04%	7.56%	RSPGGGSEANGLALVSGFKR	R	L	95.00%	4.44	0.505	0	0	1	0	2	2,040.00	182	201	TRUE	
SNU216_PC2_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	6	6	6	0.04%	7.56%	SPGGGSEANGLALVSGFK	R	R	95.00%	3.18	0.376	0	1	0	0	2	1,727.80	183	200	TRUE	
SNU216_PC2_03	tight junction protein 3	IPI00293451,IPI00744036	104,829.50	100.00%	6	6	6	0.04%	7.56%	SSEPVQADESQSPR	R	D	95.00%	2.84	0.335	0	1	0	0	2	1,596.65	878	891	TRUE	
SNU216_PC2_03	Tripartite motif protein 56	IPI00514832	81,487.20	100.00%	2	2	2	0.01%	4.24%	AQTPHEDGGPQPHR	R	G	95.00%	3.55	0.395	0	0	1	0	2	1,606.68	440	453	TRUE	
SNU216_PC2_03	Tripartite motif protein 56	IPI00514832	81,487.20	100.00%	2	2	2	0.01%	4.24%	EPSPALGPNLDGSGLLPR	R	P	95.00%	2.55	0.401	0	1	0	0	2	1,869.91	473	490	TRUE	
SNU216_PC2_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	3	3	0.02%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.05	0.345	0	0	1	0	2	2,439.19	179	201	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	3	3	0.02%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.46	0.368	0	0	1	1	2	2,595.29	178	201	TRUE	
SNU216_PC2_03	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	3	3	0.02%	2.95%	NSLTGEEGQLAR	R	V	95.00%	2.09	0.266	0	1	0	0	2	1,354.60	111	122	TRUE	
SNU216_PC2_03	Sphingosine-1-phosphate phosphatase 1	IPI00306840	49,110.20	99.80%	2	3	3	0.02%	2.95%	RNSLTGEEGQLAR	R	V	95.00%	3	0.297	0	1	1	0	2	1,510.70	110	122	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	AASSDQLRDNSPPPAFKPEPPK	R	A	95.00%	3.53	0.33	0	0	2	0	2	2,429.15	976	997	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	DNSPPPAFKPEPPK	R	A	95.00%	3.09	0.476	0	2	1	0	2	1,600.74	984	997	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	DSQQTLINIPSLNDSDSEIEDISEIESNR	R	S	95.00%	5.03	0.468	0	0	1	0	2	3,341.49	384	412	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	ERPSSREDTPSR	K	L	93.50%	2.04	0.321	0	1	0	0	2	1,496.65	437	448	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	GSYGSDAEEEEYR	R	Q	95.00%	2.83	0.564	0	1	0	0	2	1,571.55	1155	1167	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.98	0.259	0	0	1	1	2	2,509.02	1155	1175	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	KVQVAALQASPPLDQDDR	R	A	95.00%	3.99	0.5	0	1	1	0	2	2,030.99	121	138	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	RHQYSDYDYHSSSEK	R	L	95.00%	4.49	0.329	0	2	1	0	2	1,981.77	420	434	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	RHQYSDYDYHSSSEKLK	R	E	93.90%	3.06	0.17	0	0	1	0	2	2,302.92	420	436	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	SFSPEER	R	R	84.30%	1.58	0.237	0	1	0	0	2	931.3557	413	419	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	SIDQDYER	R	A	95.00%	1.77	0.342	1	1	0	0	2	1,105.42	244	251	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	4.78	0.481	0	0	3	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC2_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	13	18	23	0.15%	14.40%	SWEDSPER	R	G	95.00%	1.35	0.275	1	0	0	0	2	1,085.39	170	177	TRUE	
SNU216_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	8	0.05%	16.30%	AEDGATPSPSNETPK	K	K	95.00%	3.7	0.423	0	2	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	8	0.05%	16.30%	AEDGATPSPSNETPKK	K	K	95.00%	3.03	0.429	0	1	0	0	2	1,708.74	137	152	TRUE	
SNU216_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	8	0.05%	16.30%	AEDGATPSPSNETPKKK	K	K	95.00%	2.98	0.298	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	8	0.05%	16.30%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.25	0.489	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC2_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	5	7	8	0.05%	16.30%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.27	0.456	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC2_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	99.80%	1	1	1	0.01%	3.24%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	3.66	0.28	0	0	1	0	2	2,225.01	472	492	TRUE	
SNU216_PC2_03	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	2	3	3	0.02%	1.50%	APLKPYPVSPSDK	K	V	95.00%	3.16	0.498	0	1	1	0	2	1,478.73	1043	1055	TRUE	
SNU216_PC2_03	Isoleucyl-tRNA synthetase, cytoplasmic	IPI00644127	144,962.40	100.00%	2	3	3	0.02%	1.50%	APLKPYPVSPSDKVLIQEK	K	T	95.00%	3.46	0.256	0	0	1	0	2	2,189.16	1043	1061	TRUE	
SNU216_PC2_03	Centaurin-beta 2	IPI00014264	88,030.10	100.00%	1	1	1	0.01%	2.06%	KSSPSTGSLDSGNESK	K	E	95.00%	4.39	0.0519	0	1	0	0	2	1,660.71	377	392	TRUE	
SNU216_PC2_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	DYDEEEQGYDSEKEK	R	K	95.00%	3.42	0.312	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC2_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	5.58%	SKTPPKSYSTAR	R	R	95.00%	2.11	0.37	0	0	1	0	2	1,402.67	263	274	TRUE	
SNU216_PC2_03	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.80%	2	2	2	0.01%	4.99%	EDVEVAESPLR	R	V	95.00%	2.84	0.338	0	1	0	0	2	1,323.58	510	520	TRUE	
SNU216_PC2_03	Nuclear pore complex protein Nup88	IPI00001738	83,544.10	99.80%	2	2	2	0.01%	4.99%	NQSPTEAEKPASSSLPSSPPPQLLTR	K	N	95.00%	3.22	0.275	0	0	1	0	2	2,799.36	33	58	TRUE	
SNU216_PC2_03	CDA02	IPI00012462	67,852.50	99.00%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.22	0.411	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216_PC2_03	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTK	K	R	95.00%	3.63	0.201	0	0	1	0	2	2,971.13	299	323	TRUE	
SNU216_PC2_03	Protein C22orf19	IPI00299417	78,537.80	99.80%	2	2	2	0.01%	3.81%	ALFKPPEDSQDDESDSDAEEEQTTKR	K	R	95.00%	3.78	0.353	0	0	1	0	2	3,127.23	299	324	TRUE	
SNU216_PC2_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	19	0.12%	8.95%	AEEPPSQLDQDTQVQDMDEGSDDEEEGQI	K	V	95.00%	5.82	0.399	0	0	1	0	2	3,329.28	339	367	TRUE	
SNU216_PC2_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	19	0.12%	8.95%	EKQSDDEVYAPGLDIESSLK	R	Q	95.00%	4.78	0.494	0	1	1	0	2	2,303.03	448	467	TRUE	
SNU216_PC2_03	Splicing factor 3 subunit 1	IPI00017451	88,886.10	100.00%	3	5	19	0.12%	8.95%	FGESEEVEMEVESDEEDDKQEK	K	A	95.00%	6.06	0.436	0	1	15	0	2	2,697.03	317	338	TRUE	
SNU216_PC2_03	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	99.80%	2	3	3	0.02%	3.43%	SGGGDLTLGLEPSEEEAPR	R	S	95.00%	3.24	0.396	0	1	0	0	2	1,993.88	1024	1042	TRUE	
SNU216_PC2_03	Receptor tyrosine-protein kinase erbB-2 precursor	IPI00300384,IPI00654851	134,855.70	99.80%	2	3	3	0.02%	3.43%	SPLAPSEGAGSDVFDGDLGMGAAK	R	G	95.00%	4.31	0.558	0	1	1	0	2	2,329.01	1043	1066	TRUE	
SNU216_PC2_03	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.80%	2	2	2	0.01%	3.05%	AVTTVTQSTPVPGPSVPPPEELQVSPGPR	R	Q	95.00%	3.79	0.423	0	0	1	0	2	3,004.50	1414	1442	TRUE	
SNU216_PC2_03	Isoform 1 of Host cell factor	IPI00019848,IPI00219326	201,951.20	99.80%	2	2	2	0.01%	3.05%	GTNVMVTHYFLPPDDAVPSDDDLGTVPDY	K	K	95.00%	6.25	0.511	0	0	1	0	2	3,713.67	1751	1783	TRUE	
SNU216_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	99.80%	2	2	2	0.01%	4.18%	MSGFIYQGK	R	L	95.00%	1.72	0.343	0	1	0	0	2	1,110.47	339	347	TRUE	
SNU216_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	99.80%	2	2	2	0.01%	4.18%	SGTLKSPPKGFDTTAINK	K	S	95.00%	3.71	0.441	0	0	1	0	2	1,941.97	74	91	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	6	6	0.04%	3.01%	EGPEPPEEVPPPTTPPVPK	K	V	95.00%	2.51	0.282	0	1	0	0	2	2,073.98	597	615	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	6	6	0.04%	3.01%	ERGTPPVDPK	R	L	84.40%	2.26	0.153	0	1	0	0	2	1,175.55	779	788	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	6	6	0.04%	3.01%	ERSDSGGSSSEPFDR	R	H	91.00%	2.69	0.129	0	1	0	0	2	1,692.65	757	771	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	6	6	0.04%	3.01%	LKFSDEEDGRDSDEEGAEGHR	K	D	95.00%	3.05	0.331	0	0	1	1	2	2,537.95	339	359	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT2	IPI00010700,IPI00084746,IP	228,863.10	100.00%	5	6	6	0.04%	3.01%	SDSGGSSSEPFDR	R	H	95.00%	2.45	0.363	0	1	0	0	2	1,407.51	759	771	TRUE	
SNU216_PC2_03	LKB1 interacting protein	IPI00170934	121,345.00	100.00%	3	3	3	0.02%	6.73%	AKNSPPQAPSTR	R	D	95.00%	2.14	0.34	0	1	0	0	2	1,333.63	769	780	TRUE	
SNU216_PC2_03	LKB1 interacting protein	IPI00170934	121,345.00	100.00%	3	3	3	0.02%	6.73%	SHLEPSGNPLPATPTTSAPSAPPASSQGPDT	R	G	90.00%	6.67	0.0074	0	0	0	1	2	4,365.04	446	488	TRUE	
SNU216_PC2_03	LKB1 interacting protein	IPI00170934	121,345.00	100.00%	3	3	3	0.02%	6.73%	SPRPTGSDLLPGAPILSLR	R	F	95.00%	3.03	0.343	0	0	1	0	2	2,027.07	610	628	TRUE	
SNU216_PC2_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	3.92%	AHAWPSPYK	R	D	95.00%	1.9	0.252	0	1	0	0	2	1,136.49	340	348	TRUE	
SNU216_PC2_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	100.00%	2	3	3	0.02%	3.92%	AHAWPSPYKDYEVK	R	K	95.00%	3.02	0.313	0	1	1	0	2	1,770.79	340	353	TRUE	
SNU216_PC2_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	5	8	0.05%	4.81%	DLFDLNSSEEDDTEGFSER	K	G	95.00%	4.31	0.599	0	2	1	0	2	2,284.88	666	684	TRUE	
SNU216_PC2_03	Nucleolar complex protein 2 homolog	IPI00411886	84,907.10	100.00%	2	5	8	0.05%	4.81%	EAARSPDKPGGSPSASR	R	R	95.00%	3.6	0.393	0	2	2	1	2	1,749.79	45	61	TRUE	
SNU216_PC2_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	8.41%	AGGLDWPEATEVSPSR	R	T	95.00%	2.93	0.312	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC2_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	8.41%	LSSGFDDIDLPSAVK	R	Y	95.00%	2.37	0.244	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216_PC2_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	8.41%	NVTGILWNLSSSDHLK	K	D	95.00%	2.88	0.242	0	0	1	0	2	1,863.90	422	437	TRUE	
SNU216_PC2_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	4	4	0.03%	8.41%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	4.2	0.336	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.80%	2	3	3	0.02%	3.53%	HQSFGAAVLSR	R	E	95.00%	2.83	0.221	0	1	1	0	2	1,252.58	105	115	TRUE	
SNU216_PC2_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.80%	2	3	3	0.02%	3.53%	SSSVPHPFQVTLLR	R	N	95.00%	2.53	0.375	0	0	1	0	2	1,647.83	576	589	TRUE	
SNU216_PC2_03	Isoform 2 of Rho-GTPase-activating protein 12	IPI00217418,IPI00328279,IP	90,875.90	99.80%	2	4	5	0.03%	5.15%	ATTPPNQGRPDSPVYANLQELK	R	I	95.00%	3.08	0.262	0	1	1	0	2	2,556.15	229	250	TRUE	
SNU216_PC2_03	Isoform 2 of Rho-GTPase-activating protein 12	IPI00217418,IPI00328279,IP	90,875.90	99.80%	2	4	5	0.03%	5.15%	IHQDSESGDELSSSSTEQIR	R	A	95.00%	3.24	0.258	0	1	2	0	2	2,284.96	209	228	TRUE	
SNU216_PC2_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	2	3	3	0.02%	3.37%	GSGSQSSVPSVDQFTGVGIR	R	V	95.00%	3.36	0.0987	0	0	1	0	2	2,044.93	1080	1099	TRUE	
SNU216_PC2_03	Structural maintenance of chromosome 3	IPI00219420	141,547.10	100.00%	2	3	3	0.02%	3.37%	KGDVEGSQSQDEGEGSGESER	K	G	95.00%	4.91	0.472	0	1	1	0	2	2,246.87	1059	1079	TRUE	
SNU216_PC2_03	Isoform 1 of Protein KIAA1914	IPI00181905,IPI00455138	93,895.20	99.80%	1	2	2	0.01%	2.08%	KFSEPNTYIDGLPSQDR	R	Q	95.00%	3.11	0.254	0	1	1	0	2	2,046.92	510	526	TRUE	
SNU216_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.05%	13.20%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	3.88	0.354	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.05%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.92	0.55	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.05%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4.56	0.191	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216_PC2_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	4	7	8	0.05%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.43	0.611	0	0	1	2	2	3,735.89	46	80	TRUE	
SNU216_PC2_03	Kinesin-like protein KIF23	IPI00293884	98,106.10	99.80%	1	2	2	0.01%	2.45%	SVSPSPVPLLFQPDQNAPPIR	R	L	95.00%	4.48	0.541	0	1	1	0	2	2,339.18	682	702	TRUE	
SNU216_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	4	6	17	0.11%	11.60%	EVEEDSEDEEMSEDEEDDSSGEEVVIPQKK	K	G	95.00%	3.81	0.355	0	0	3	0	2	3,521.37	23	52	TRUE	
SNU216_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	4	6	17	0.11%	11.60%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	7.4	0.75	0	0	6	2	2	4,199.41	119	153	TRUE	
SNU216_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	4	6	17	0.11%	11.60%	KVVVSPTKK	K	V	95.00%	2.34	0.31	0	1	0	0	2	1,065.61	63	71	TRUE	
SNU216_PC2_03	74 kDa protein	IPI00604517	74,428.20	100.00%	4	6	17	0.11%	11.60%	MAPPPKEVEEDSEDEEMSEDEEDDSSGEEV	K	G	95.00%	4.39	0.389	0	0	2	3	2	4,142.70	17	52	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	99.80%	2	3	3	0.02%	10.00%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	2.82	0.197	0	0	1	0	2	2,490.05	106	126	TRUE	
SNU216_PC2_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	99.80%	2	3	3	0.02%	10.00%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	5.97	0.595	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216_PC2_03	KIAA0433 protein (Fragment)	IPI00021701,IPI00178375	138,110.20	99.80%	1	1	1	0.01%	1.59%	HFFHHADEDDEEEDDSPPER	R	Q	95.00%	3.14	0.237	0	0	1	0	2	2,532.92	23	42	TRUE	
SNU216_PC2_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	3	0.02%	3.00%	QGAIYHGLATLLNQPSPMMQR	K	I	89.40%	3.76	0.121	0	0	1	0	2	2,406.15	1091	1111	TRUE	
SNU216_PC2_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	3	0.02%	3.00%	SQDADSPGSSGAPENLTFK	K	E	95.00%	3.59	0.478	0	1	0	0	2	1,987.83	1784	1802	TRUE	
SNU216_PC2_03	Isoform 5 of Afadin	IPI00759546	207,792.60	100.00%	3	3	3	0.02%	3.00%	SSPNVANQPPSPGGK	R	S	95.00%	3.15	0.317	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	3.49%	AEEEHLSSSGGLAK	R	N	95.00%	2.65	0.198	0	1	0	0	2	1,494.65	349	362	TRUE	
SNU216_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	3.49%	ATSFEESER	R	K	90.20%	1.91	0.247	0	1	0	0	2	1,135.43	947	955	TRUE	
SNU216_PC2_03	PTPL1-associated RhoGAP 1	IPI00152011	142,068.10	100.00%	3	3	3	0.02%	3.49%	HLNSSQPSGFGPANSLEDVVR	K	L	95.00%	5.04	0.52	0	0	1	0	2	2,291.05	485	505	TRUE	
SNU216_PC2_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.90%	2	2	2	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	3.51	0.356	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216_PC2_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	99.90%	2	2	2	0.01%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	3.46	0.179	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216_PC2_03	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	3	3	0.02%	3.78%	LIHTLDDRTQLWASEPGTPPLPTSLPSQNPIL	K	N	95.00%	4.95	0.188	0	0	0	1	2	3,715.91	527	559	TRUE	
SNU216_PC2_03	Isoform B of Arsenite-resistance protein 2	IPI00220038,IPI00337663,IP	100,279.00	100.00%	2	3	3	0.02%	3.78%	TQLWASEPGTPPLPTSLPSQNPILK	R	N	95.00%	3.83	0.37	0	1	1	0	2	2,752.40	535	559	TRUE	
SNU216_PC2_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	3	0.02%	5.57%	GFENVIHDKLPLQESEEEER	K	E	82.80%	2.92	0.135	0	0	1	0	2	2,478.12	143	162	TRUE	
SNU216_PC2_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	3	0.02%	5.57%	GFENVIHDKLPLQESEEEEREER	K	S	95.00%	3.2	0.29	0	0	0	1	2	2,892.31	143	165	TRUE	
SNU216_PC2_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	3	0.02%	5.57%	VIGQDHDFSESSEEEAPAEASSGALR	R	S	95.00%	3.23	0.187	0	0	1	0	2	2,878.15	399	424	TRUE	
SNU216_PC2_03	Gephyrin	IPI00016006,IPI00184477	83,448.60	100.00%	1	2	3	0.02%	3.80%	VKEVHDELEDLPSPPPPLSPPPTTSPHK	K	Q	95.00%	3.93	0.321	0	0	1	2	2	3,200.50	176	203	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	DKEVSDDEAEEK	R	E	95.00%	3.4	0.326	1	1	0	0	2	1,473.56	349	360	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	DKEVSDDEAEEKEDK	R	E	90.30%	3.31	0.109	0	1	1	0	2	1,845.73	349	363	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	EEKESEDKPEIEDVGSDEEEEK	K	K	95.00%	5.33	0.404	0	1	1	0	2	2,659.07	370	391	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	ERDKEVSDDEAEEK	K	E	95.00%	3.46	0.309	0	1	1	0	2	1,758.71	347	360	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	3.85	0.423	0	2	1	0	2	2,272.89	373	391	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.99	0.41	0	1	0	0	2	2,400.98	373	392	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	EVSDDEAEEKEDK	K	E	95.00%	3.58	0.469	0	1	0	0	2	1,602.61	351	363	TRUE	
SNU216_PC2_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	8	13	14	0.09%	5.15%	EVSDDEAEEKEDKEEEK	K	E	95.00%	2.81	0.188	0	0	1	0	2	2,117.83	351	367	TRUE	
SNU216_PC2_03	Isoform 2 of La-related protein 4	IPI00043638,IPI00395347,IP	67,280.00	99.80%	1	1	1	0.01%	1.65%	EQYVPPRSPK	K	-	95.00%	2.15	0.241	0	1	0	0	2	1,280.60	596	605	TRUE	
SNU216_PC2_03	Aspartyl/asparaginyl beta-hydroxylase	IPI00294834	86,005.80	100.00%	1	1	1	0.01%	3.29%	SSGNSSSSGSGSGSTSAGSSSPGAR	K	R	95.00%	4.7	0.0514	0	1	0	0	2	2,182.85	9	33	TRUE	
SNU216_PC2_03	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	3	3	3	0.02%	1.85%	EDENDASDDEDDDEK	R	R	95.00%	4.09	0.687	0	1	0	0	2	1,820.55	256	270	TRUE	
SNU216_PC2_03	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	3	3	3	0.02%	1.85%	EDENDASDDEDDDEKR	R	R	95.00%	3.24	0.507	0	1	0	0	2	1,976.65	256	271	TRUE	
SNU216_PC2_03	Isoform A of GC-rich sequence DNA-binding fact	IPI00001364,IPI00069267	93,173.30	100.00%	3	3	3	0.02%	1.85%	EDENDASDDEDDDEKRR	R	I	95.00%	2.79	0.385	0	0	1	0	2	2,132.75	256	272	TRUE	
SNU216_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	99.80%	2	3	3	0.02%	8.16%	ITFITSFGGSDEEAAAAAAAAAAASGVTTGKP	K	N	95.00%	6.21	0.407	0	0	1	1	2	4,099.98	311	354	TRUE	
SNU216_PC2_03	Isoform 1 of Splicing factor, arginine/serine-rich 1	IPI00013107,IPI00432061	64,408.50	99.80%	2	3	3	0.02%	8.16%	RDSPTYDPYKR	R	S	95.00%	2.76	0.427	0	0	1	0	2	1,477.65	277	287	TRUE	
SNU216_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	7	10	0.07%	6.05%	AQAVSEEEEEEEGK	K	S	95.00%	3.28	0.477	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	7	10	0.07%	6.05%	AQAVSEEEEEEEGKSSSPK	K	K	95.00%	4.2	0.37	0	2	1	0	2	2,129.88	78	96	TRUE	
SNU216_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	7	10	0.07%	6.05%	KAQAVSEEEEEEEGK	R	S	95.00%	3.45	0.45	0	1	1	0	2	1,771.73	77	91	TRUE	
SNU216_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	7	10	0.07%	6.05%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	4.46	0.453	0	0	2	0	2	2,257.97	77	96	TRUE	
SNU216_PC2_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	100.00%	5	7	10	0.07%	6.05%	SPGKAEAESDALPDDTVIESEALPSDIAAEAR	R	A	95.00%	4.55	0.487	0	0	2	0	2	3,334.52	287	318	TRUE	
SNU216_PC2_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	2	3	3	0.02%	1.48%	ITPPAAKPGSPQAK	R	S	95.00%	2.64	0.334	0	1	1	0	2	1,442.74	669	682	TRUE	
SNU216_PC2_03	nucleoporin 214kDa	IPI00643352	213,619.00	100.00%	2	3	3	0.02%	1.48%	SPGSTPTTPTSSQAPQK	K	L	95.00%	3.45	0.478	0	1	0	0	2	1,751.79	430	446	TRUE	
SNU216_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.93%	GFEEEHKDSDDDSSDDEQEK	K	K	95.00%	3.03	0.679	0	1	1	0	2	2,580.79	423	442	TRUE	
SNU216_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.93%	SRGSDSPAADVEIEYVTEEPEIYEPNFIFFK	R	R	87.40%	6.46	0.002	0	0	1	0	2	3,658.65	357	387	TRUE	
SNU216_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.93%	SSLGQSASETEEDTVSVSK	R	K	95.00%	3.6	0.0917	0	2	0	0	2	2,020.86	302	320	TRUE	
SNU216_PC2_03	splicing factor 3B subunit 2	IPI00221106	100,229.40	100.00%	4	5	6	0.04%	7.93%	SSLGQSASETEEDTVSVSKK	R	E	95.00%	3.04	0.288	0	0	1	0	2	2,148.95	302	321	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	4	4	0.03%	4.62%	KTVEDEDQDSEEEKDNDSYIK	K	E	95.00%	3.58	0.238	0	0	1	0	2	2,596.05	405	425	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	4	4	0.03%	4.62%	NINMDNDLEVLTSSPTR	K	N	95.00%	2.57	0.2	0	1	0	0	2	1,998.88	538	554	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 16	IPI00001780,IPI00428464	93,499.80	100.00%	3	4	4	0.03%	4.62%	TVEDEDQDSEEEKDNDSYIK	K	E	95.00%	3.49	0.346	0	1	1	0	2	2,467.95	406	425	TRUE	
SNU216_PC2_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	99.80%	2	2	2	0.01%	1.97%	GRPPAEKLSPNPPNLTK	R	K	95.00%	3.14	0.212	0	0	1	0	2	1,895.97	1476	1492	TRUE	
SNU216_PC2_03	SMARCA4 isoform 2	IPI00029822,IPI00293426	188,152.60	99.80%	2	2	2	0.01%	1.97%	KRDSDAGSSTPTTSTR	R	S	95.00%	2.53	0.311	0	0	1	0	2	1,746.77	1446	1461	TRUE	
SNU216_PC2_03	Isoform 1 of Protein KIAA0690	IPI00101186,IPI00294794	132,711.90	99.80%	1	2	2	0.01%	1.70%	GDSIEEILADSDEEEDNEEEER	K	S	95.00%	5.04	0.451	0	1	1	0	2	2,631.99	970	991	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	3.64	0.444	0	0	1	0	2	2,154.95	198	218	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	GGQGDPAVPTQQPADPSTPEQQNSPSGSE	R	R	95.00%	7.3	0.11	0	0	1	0	2	3,473.52	264	296	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	KSTGSPTQETQAPFIAK	K	R	95.00%	3.07	0.299	0	1	0	0	2	1,870.89	67	83	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	QSSPSGSEQLVR	R	R	95.00%	2.36	0.4	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQK	R	R	80.40%	6.09	0.0126	0	0	1	0	2	2,910.17	16	40	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	95.00%	7.45	0.004	0	0	2	0	2	3,066.27	16	41	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	SSTSGDTEEEEEEEVVPFSSDEQK	R	R	95.00%	4.38	0	0	1	0	0	2	2,754.07	17	40	TRUE	
SNU216_PC2_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	8	8	9	0.06%	23.90%	STGSPTQETQAPFIAK	K	R	95.00%	3.32	0.368	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	DLDEEGSEKELHENVLDK	K	E	95.00%	3.84	0.425	0	1	0	0	2	2,178.94	573	590	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	4.85	0.456	0	1	1	0	2	2,345.83	619	636	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	ELHENVLDKELEENDSENSEFEDDGSEK	K	V	95.00%	6.03	0.539	0	0	1	0	2	3,439.33	582	609	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	ESEDDLNKESEEEVGPTK	K	E	95.00%	3.5	0.357	0	1	0	0	2	2,114.87	520	537	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	LFDEEEDSSEKLFDDSDER	K	G	95.00%	3.81	0.355	0	1	2	0	2	2,384.93	706	724	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	LFEDDDSNEKLFDEEEDSSEK	K	L	95.00%	4.72	0.499	0	1	1	0	2	2,600.01	696	716	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	LFEESDDKEDEDADGK	K	E	95.00%	3.87	0.233	0	1	0	0	2	1,921.72	672	687	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	LFEESDDKEDEDADGKEVEDADEK	K	L	95.00%	5.24	0.563	0	1	2	1	2	2,837.11	672	695	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.45	0.373	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	VFDDESDEKEDEEYADEKGLEAADK	K	K	95.00%	6.31	0.472	0	0	1	0	2	2,956.18	637	661	TRUE	
SNU216_PC2_03	HIV TAT specific factor 1	IPI00013788	85,854.60	100.00%	11	18	20	0.13%	21.20%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	2.8	0.314	0	0	1	1	2	3,440.26	610	636	TRUE	
SNU216_PC2_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	AKPAMPQDSVPSPR	K	S	95.00%	3.7	0.537	0	1	1	0	2	1,560.72	470	483	TRUE	
SNU216_PC2_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	KAKPAMPQDSVPSPR	K	S	95.00%	4.55	0.458	0	0	1	0	2	1,688.82	469	483	TRUE	
SNU216_PC2_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	PAMPQDSVPSPR	K	S	95.00%	2.28	0.314	0	1	0	0	2	1,361.59	472	483	TRUE	
SNU216_PC2_03	ATP-citrate synthase	IPI00021290,IPI00640847	120,828.80	100.00%	4	5	5	0.03%	2.09%	TASFSESR	R	A	95.00%	1.71	0.377	0	1	0	0	2	964.3771	453	460	TRUE	
SNU216_PC2_03	Splicing factor, arginine/serine-rich 8	IPI00290094	104,823.30	99.80%	1	1	1	0.01%	2.21%	GVSQEKEAQISSAIVSSVQSK	R	I	95.00%	3.9	0.281	0	0	1	0	2	2,242.10	907	927	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	3	3	0.02%	1.87%	TAFYNEDDSEEEQR	R	Q	95.00%	2.75	0.342	0	1	0	0	2	1,812.66	1775	1788	TRUE	
SNU216_PC2_03	pleckstrin homology domain interacting protein	IPI00291916	206,692.20	99.80%	2	3	3	0.02%	1.87%	VLSDSEDEEKDADVPGTSTR	K	K	95.00%	3.42	0.476	0	1	1	0	2	2,309.91	1279	1298	TRUE	
SNU216_PC2_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.03%	11.50%	ATVTPSPVKGK	K	G	84.40%	2.14	0.209	0	1	0	0	2	1,164.60	176	186	TRUE	
SNU216_PC2_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.03%	11.50%	LKATVTPSPVKGK	R	G	95.00%	2.35	0.224	0	0	1	0	2	1,405.78	174	186	TRUE	
SNU216_PC2_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	3	3	4	0.03%	11.50%	NSQEDSEDSEDKDVK	K	T	95.00%	3.13	0.335	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216_PC2_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	3	0.02%	6.06%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.87	0.419	0	0	2	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC2_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	2	2	3	0.02%	6.06%	SSTPLPTISSSAENTR	R	Q	95.00%	2.88	0.141	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216_PC2_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	1	2	3	0.02%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.93	0.409	0	1	2	0	2	1,694.76	90	103	TRUE	
SNU216_PC2_03	Ubiquitin-activating enzyme E1	IPI00645078	117,850.30	100.00%	1	1	1	0.01%	1.23%	ATLPSPDKLPGFK	K	M	89.40%	1.85	0.266	0	1	0	0	2	1,450.73	831	843	TRUE	
SNU216_PC2_03	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	1	2	2	0.01%	1.99%	QTPMASSPRPK	K	M	95.00%	2.23	0.335	0	1	1	0	2	1,279.59	150	160	TRUE	
SNU216_PC2_03	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	1	1	1	0.01%	2.37%	EESDDEAAVEEEEEEKKPK	K	T	95.00%	5.01	0.485	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.05%	8.02%	DQSPPPSPPPSYHPPPPPTK	K	K	95.00%	3.71	0.218	0	1	2	0	2	2,279.98	667	686	TRUE	
SNU216_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.05%	8.02%	GLAGPPASPGK	K	A	95.00%	1.93	0.314	0	1	0	0	2	1,031.49	538	548	TRUE	
SNU216_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.05%	8.02%	GSPSGGSTAEASDTLSIR	R	S	95.00%	3.41	0.562	0	1	0	0	2	1,772.77	403	420	TRUE	
SNU216_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.05%	8.02%	KLQLERPVSPETQADLQR	R	N	95.00%	3.98	0.491	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC2_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	100.00%	5	6	7	0.05%	8.02%	KPSVGVPPPASPSYPR	R	A	95.00%	3.24	0.308	0	0	1	0	2	1,715.85	969	984	TRUE	
SNU216_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	6.35%	DRTPPLLYR	R	D	95.00%	2.49	0.379	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	6.35%	GGSREYDTGGGSSSSR	R	L	95.00%	1.78	0.292	0	1	0	0	2	1,639.63	107	122	TRUE	
SNU216_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	6.35%	LLLERPSPIRDR	R	R	83.60%	2.14	0.212	0	0	1	0	2	1,544.83	694	705	TRUE	
SNU216_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	6.35%	SLSPGGAALGYR	R	D	95.00%	2.62	0.284	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216_PC2_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	100.00%	5	6	6	0.04%	6.35%	TTAPTEGKSPLKK	R	E	95.00%	2.81	0.259	0	1	1	0	2	1,437.74	733	745	TRUE	
SNU216_PC2_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	4.32	0.44	0	0	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC2_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	YRSPYSGPK	R	F	91.10%	1.91	0.204	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC2_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	5.01	0.51	0	0	1	1	2	3,923.85	419	453	TRUE	
SNU216_PC2_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.5	0.437	0	0	1	1	2	2,581.18	462	485	TRUE	
SNU216_PC2_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	5	5	0.03%	8.81%	NSQKHSPTSEPTPPGDALPPVSSPHTHR	R	G	95.00%	4.51	0.125	0	0	0	1	2	3,038.41	458	485	TRUE	
SNU216_PC2_03	Isoform 2 of Plakophilin-2	IPI00005264,IPI00219688	92,741.60	99.80%	2	2	2	0.01%	4.88%	RAHLTVGQAAAGGSGNLLTER	R	S	95.00%	3.07	0.359	0	0	1	0	2	2,159.07	316	336	TRUE	
SNU216_PC2_03	Isoform 2 of Plakophilin-2	IPI00005264,IPI00219688	92,741.60	99.80%	2	2	2	0.01%	4.88%	TSSVPEYVYNLHLVENDFVGGR	R	S	95.00%	3.93	0.313	0	0	1	0	2	2,575.19	80	101	TRUE	
SNU216_PC2_03	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	99.70%	2	2	2	0.01%	3.22%	IHSPIPDMSK	K	F	95.00%	2.03	0.34	0	1	0	0	2	1,204.54	663	672	TRUE	
SNU216_PC2_03	Isoform 1 of Zinc finger CCHC domain-containing	IPI00556594	79,376.50	99.70%	2	2	2	0.01%	3.22%	LFPADTSPSTATK	K	I	87.60%	2.21	0.223	0	1	0	0	2	1,415.65	650	662	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	6	7	0.05%	10.00%	EGEETEGSEEDDKENDK	K	T	95.00%	2.7	0.611	0	1	0	0	2	2,099.69	473	489	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	6	7	0.05%	10.00%	EGEETEGSEEDDKENDKTEEMPNDSVLENK	K	S	95.00%	3.71	0.427	0	0	2	1	2	3,586.35	473	502	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	6	7	0.05%	10.00%	SLQENEEEEIGNLELAWDMLDLAK	K	I	95.00%	4.87	0.453	0	1	1	0	2	2,869.29	503	526	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear autoantigenic sperm protein	IPI00179953,IPI00332499	85,235.50	100.00%	4	6	7	0.05%	10.00%	VAQGATEKSPEDKVQIAANEETQER	K	E	95.00%	3.87	0.326	0	0	1	0	2	2,808.31	443	467	TRUE	
SNU216_PC2_03	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	100.00%	3	3	3	0.02%	7.68%	AGSNEDPILAPSGTPPPTIPPDETFGGR	R	V	95.00%	4.58	0.484	0	0	1	0	2	2,870.33	644	671	TRUE	
SNU216_PC2_03	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	100.00%	3	3	3	0.02%	7.68%	EGESPAAGPPPQELVEEEPSAPPTLLEEETED	R	V	95.00%	3.76	0.289	0	0	0	1	2	3,840.68	952	987	TRUE	
SNU216_PC2_03	Proline and glutamic acid rich nuclear protein isol	IPI00178047	110,224.90	100.00%	3	3	3	0.02%	7.68%	GSPDGSLQTGKPSAPK	R	K	95.00%	2.65	0.268	0	1	0	0	2	1,606.75	478	493	TRUE	
SNU216_PC2_03	U3 small nucleolar ribonucleoprotein protein MPF	IPI00012149	78,866.80	100.00%	1	1	1	0.01%	4.41%	KDDNDEEEEDIDFFEDIDSDEDEGGLFGSK	R	K	95.00%	6.58	0.622	0	0	1	0	2	3,533.34	224	253	TRUE	
SNU216_PC2_03	Rho/Rac guanine nucleotide exchange factoR 2	IPI00291316,IPI00412782,IP	111,474.90	99.80%	2	2	2	0.01%	1.02%	ERQELGSPEER	R	L	95.00%	2.41	0.209	0	0	1	0	2	1,409.61	925	935	TRUE	
SNU216_PC2_03	Rho/Rac guanine nucleotide exchange factoR 2	IPI00291316,IPI00412782,IP	111,474.90	99.80%	2	2	2	0.01%	1.02%	QELGSPEER	R	L	95.00%	1.95	0.256	0	1	0	0	2	1,124.46	927	935	TRUE	
SNU216_PC2_03	Kinesin-like protein KIF1C	IPI00179757	123,072.80	99.80%	2	2	2	0.01%	4.35%	EDGGTVGVFSPK	R	K	95.00%	1.93	0.291	0	1	0	0	2	1,272.55	485	496	TRUE	
SNU216_PC2_03	Kinesin-like protein KIF1C	IPI00179757	123,072.80	99.80%	2	2	2	0.01%	4.35%	SNPQHRESWPGMGSGEAPTPLQPPEEVTP	K	R	95.00%	4.28	0.256	0	0	0	1	2	3,922.80	983	1018	TRUE	
SNU216_PC2_03	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	4	6	9	0.06%	2.12%	FDHESSPGTDEDK	K	S	95.00%	2.26	0.29	0	1	0	0	2	1,543.56	740	752	TRUE	
SNU216_PC2_03	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	4	6	9	0.06%	2.12%	FDHESSPGTDEDKSG	K	-	95.00%	2.95	0.44	0	2	0	0	2	1,767.58	740	754	TRUE	
SNU216_PC2_03	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	4	6	9	0.06%	2.12%	KFDHESSPGTDEDK	K	S	95.00%	2.84	0.299	0	1	1	0	2	1,671.65	739	752	TRUE	
SNU216_PC2_03	Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	IPI00006298	88,620.00	100.00%	4	6	9	0.06%	2.12%	KFDHESSPGTDEDKSG	K	-	95.00%	4.49	0.557	0	2	2	0	2	1,815.71	739	754	TRUE	
SNU216_PC2_03	146 kDa protein	IPI00215638,IPI00742905	140,884.40	100.00%	1	1	2	0.01%	3.35%	SEEVPAFGVASPPPLTDTPDTTANAEGDLPT	K	A	95.00%	5.49	0.0803	0	0	0	2	2	4,489.15	77	120	TRUE	
SNU216_PC2_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	99.70%	1	1	1	0.01%	6.15%	RGSSPDVHALLEITEESDAVLVDK	R	S	95.00%	4.05	0.345	0	0	1	0	2	2,740.25	363	386	TRUE	
SNU216_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	4	5	5	0.03%	4.76%	AKNWEDEDFYDSDDDTFLDR	K	T	95.00%	3	0.428	0	0	1	0	2	2,575.98	455	474	TRUE	
SNU216_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	4	5	5	0.03%	4.76%	KMLGEDSDEEEEMDTSER	K	K	95.00%	4.83	0.605	0	1	1	0	2	2,209.82	306	323	TRUE	
SNU216_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	4	5	5	0.03%	4.76%	MLGEDSDEEEEMDTSER	K	K	95.00%	3.28	0.38	0	1	0	0	2	2,081.72	307	323	TRUE	
SNU216_PC2_03	Kanadaptin	IPI00306749	89,016.60	100.00%	4	5	5	0.03%	4.76%	NWEDEDFYDSDDDTFLDR	K	T	95.00%	4.07	0.487	0	1	0	0	2	2,376.85	457	474	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	DSENLASPSEYPENGER	R	F	95.00%	3.37	0.308	0	1	0	0	2	1,973.78	617	633	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	PAPPPQSQSPEVEQLGR	K	V	95.00%	3.18	0.434	0	0	1	0	2	1,896.89	926	942	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	TAPLPPASQTTPLQMALNGKPAPPPQSQSP	K	V	95.00%	5.94	0.402	0	0	0	2	2	3,913.95	906	942	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear pore complex protein Nup9	IPI00006038	187,793.80	100.00%	4	5	6	0.04%	4.05%	YGLQDSDEEEEEHPSK	K	T	95.00%	3.4	0.333	0	1	1	0	2	1,971.75	883	898	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	AALAPAKESPR	R	K	95.00%	2.46	0.316	0	1	0	0	2	1,190.59	821	831	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	KLGAGEGGEASVSPEK	K	T	95.00%	3.22	0.284	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	LGAGEGGEASVSPEK	K	T	95.00%	2.68	0.347	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	SLGNILQAKPTSSPAK	K	G	95.00%	4.07	0.482	0	1	1	0	2	1,691.87	494	509	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	3.39	0.281	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	TSQVGAASAPAKESPR	K	K	95.00%	3.95	0.518	0	1	1	0	2	1,636.77	291	306	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	TSQVGAASAPAKESPRK	K	G	95.00%	3.29	0.381	0	1	0	0	2	1,764.86	291	307	TRUE	
SNU216_PC2_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	8	11	11	0.07%	5.46%	TVANLLSGKSPR	K	K	95.00%	3.18	0.289	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216_PC2_03	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	3	3	0.02%	6.91%	FGDILHVINASDDEWWQAR	K	Q	95.00%	3.24	0.198	0	0	1	0	2	2,352.04	609	627	TRUE	
SNU216_PC2_03	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	3	3	0.02%	6.91%	HVTSNASDSESSYR	Q	G	87.70%	2.47	0.137	0	1	0	0	1	1,619.63	703	716	TRUE	
SNU216_PC2_03	Isoform 2 of Disks large homolog 1	IPI00218729,IPI00552511	103,222.60	100.00%	3	3	3	0.02%	6.91%	YQDEDTPPQEHISPQITNEVIGPELVHVSEK	R	N	95.00%	3.15	0.219	0	0	0	1	2	3,608.68	110	140	TRUE	
SNU216_PC2_03	Nibrin	IPI00299463,IPI00607775	75,970.60	99.80%	1	2	2	0.01%	2.12%	IPNYQLSPTKLPSINK	R	S	95.00%	3.68	0.287	0	1	1	0	2	1,892.99	344	359	TRUE	
SNU216_PC2_03	Condensin complex subunit 3	IPI00106495	114,338.40	99.80%	2	2	2	0.01%	1.38%	LNLAQFLNEDLS	K	-	95.00%	3.13	0.296	0	1	0	0	2	1,456.67	1004	1015	TRUE	
SNU216_PC2_03	Condensin complex subunit 3	IPI00106495	114,338.40	99.80%	2	2	2	0.01%	1.38%	SKLNLAQFLNEDLS	K	-	95.00%	2.85	0.199	0	1	0	0	2	1,671.80	1002	1015	TRUE	
SNU216_PC2_03	Ribosome biogenesis protein BOP1	IPI00028955	83,629.30	100.00%	1	1	2	0.01%	2.14%	IGDEYAEDSSDEEDIR	R	N	95.00%	3.36	0.572	0	2	0	0	2	2,002.68	118	133	TRUE	
SNU216_PC2_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	2	2	2	0.01%	2.52%	LPSPTSPFSSLSQDQAATSK	R	A	95.00%	4.15	0.151	0	1	0	0	2	2,128.98	652	671	TRUE	
SNU216_PC2_03	Isoform 3 of LIM domain only protein 7	IPI00291802	153,687.30	100.00%	2	2	2	0.01%	2.52%	SHSPSASQSGSQLR	R	N	95.00%	2.86	0.448	0	1	0	0	2	1,508.65	1257	1270	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.80%	2	3	3	0.02%	6.31%	NRPLLDFVSMEELNDMDDYDSEDDNDWR	R	R	95.00%	7.56	0.498	0	0	1	1	2	4,052.72	188	220	TRUE	
SNU216_PC2_03	PHD finger protein 14	IPI00454969,IPI00472782	100,083.10	99.80%	2	3	3	0.02%	6.31%	VLSRNSADDEELTNDSLTLSQSK	K	S	95.00%	3.63	0.352	0	0	1	0	2	2,602.19	275	297	TRUE	
SNU216_PC2_03	Kinesin-like protein KIF2	IPI00010368	77,749.80	99.90%	2	2	2	0.01%	9.77%	ARPSQFPEQSSSAQQNGSVSDISPVQAAK	R	K	95.00%	5.39	0.505	0	0	1	0	2	3,081.43	98	126	TRUE	
SNU216_PC2_03	Kinesin-like protein KIF2	IPI00010368	77,749.80	99.90%	2	2	2	0.01%	9.77%	ELTVDPTAAGDVRPIMHHPPNQIDDLETQV	K	D	95.00%	4.82	0.29	0	0	0	1	2	4,243.99	532	569	TRUE	
SNU216_PC2_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3.79	0.409	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC2_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	99.80%	2	2	2	0.01%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.97	0.435	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC2_03	hypothetical protein LOC57703	IPI00177381	105,470.20	99.50%	1	1	1	0.01%	1.87%	HSGSRSDEDRYQNGAER	K	R	90.90%	2.56	0.269	0	0	0	1	2	2,043.83	861	877	TRUE	
SNU216_PC2_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	3	3	3	0.02%	1.74%	KQHYLSSEDEPDDNPDVLDSR	R	I	95.00%	3.16	0.231	0	0	1	0	2	2,619.03	2774	2794	TRUE	
SNU216_PC2_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	3	3	3	0.02%	1.74%	QHYLSSEDEPDDNPDVLDSR	K	I	95.00%	3.42	0.369	0	0	1	0	2	2,490.93	2775	2794	TRUE	
SNU216_PC2_03	family with sequence similarity 44, member A	IPI00386211	330,459.70	100.00%	3	3	3	0.02%	1.74%	SVSDPVEDKKEQESDEEEEEEEEDEPSGATTI	K	S	95.00%	6.85	0.605	0	0	1	0	2	3,718.48	2973	3004	TRUE	
SNU216_PC2_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	5	6	0.04%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	3.77	0.377	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC2_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	5	6	0.04%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	2.93	0.426	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC2_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	3	5	6	0.04%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.01	0.445	0	2	1	0	2	1,894.80	362	377	TRUE	
SNU216_PC2_03	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	3	0.02%	6.27%	LEPVYSPPGSPPPGDPR	R	I	95.00%	2.38	0.321	0	1	0	0	2	1,841.85	338	354	TRUE	
SNU216_PC2_03	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	3	0.02%	6.27%	SAMMQQYELDLR	R	E	95.00%	3.06	0.231	0	0	1	0	2	1,644.62	396	407	TRUE	
SNU216_PC2_03	Isoform 2 of Ribosomal protein S6 kinase alpha-4	IPI00479926	84,885.50	100.00%	3	3	3	0.02%	6.27%	SSPPLRTPDVLESSGPAVR	R	S	95.00%	3.68	0.347	0	0	1	0	2	2,045.01	675	693	TRUE	
SNU216_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	4.91%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	86.40%	5.87	0.0306	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	4.91%	RSSLLSLMTGK	R	K	95.00%	2.81	0.353	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC2_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	4.91%	SPIMADLNLSLPSIPEVASDDER	K	I	95.00%	4.22	0.389	0	0	1	0	2	2,549.18	949	971	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	AAEEQGDDQDSEKSKPAGSDGER	K	R	95.00%	2.56	0.303	0	1	0	0	2	2,486.00	175	197	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	EEDEPEERSGDETPGSEVPGDK	R	A	95.00%	3.28	0.289	0	1	1	0	2	2,467.96	153	174	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	EEDEPEERSGDETPGSEVPGDKAAEEQGDD	R	S	95.00%	3.63	0.326	0	0	0	1	2	3,870.51	153	187	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	REEDEPEERSGDETPGSEVPGDK	K	A	95.00%	3.17	0.35	0	0	1	0	2	2,624.06	152	174	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	SGDETPGSEVPGDK	R	A	95.00%	3.48	0.597	1	3	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	SGDETPGSEVPGDKAAEEQGDDQDSEK	R	S	95.00%	5.31	0.665	0	1	2	0	2	2,857.12	161	187	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	SKSPLPPEEEAK	R	D	95.00%	2.37	0.295	0	1	1	0	2	1,391.65	226	237	TRUE	
SNU216_PC2_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	100.00%	8	13	28	0.18%	11.00%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	6	0.502	0	0	1	13	2	4,198.92	226	261	TRUE	
SNU216_PC2_03	Transcription repressor	IPI00382733	82,672.30	100.00%	1	2	4	0.03%	2.26%	RGSGDTSISIDTEASIR	R	E	95.00%	3.1	0.315	0	2	2	0	2	1,844.84	86	102	TRUE	
SNU216_PC2_03	Isoform 1 of General transcription factor II-I repea	IPI00069694,IPI00454912,IP	106,061.00	99.30%	2	2	2	0.01%	2.09%	DTTKLEPASPPEDTSAEVSR	K	A	95.00%	3.56	0.343	0	0	1	0	2	2,209.99	440	459	TRUE	
SNU216_PC2_03	Isoform 1 of General transcription factor II-I repea	IPI00069694,IPI00454912,IP	106,061.00	99.30%	2	2	2	0.01%	2.09%	LEPASPPEDTSAEVSR	K	A	85.70%	2.16	0.181	0	1	0	0	2	1,764.77	444	459	TRUE	
SNU216_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	8	10	0.07%	3.94%	DGQDAIAQSPEK	K	E	95.00%	2.82	0.407	1	1	0	0	2	1,338.56	281	292	TRUE	
SNU216_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	8	10	0.07%	3.94%	DGQDAIAQSPEKESK	K	D	95.00%	3.98	0.359	0	2	0	0	2	1,682.73	281	295	TRUE	
SNU216_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	8	10	0.07%	3.94%	DGQDAIAQSPEKESKDYEMNANHK	K	D	95.00%	4.48	0.291	0	0	0	1	2	2,785.18	281	304	TRUE	
SNU216_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	8	10	0.07%	3.94%	ISSKSPGHMVILDQTK	R	G	95.00%	4.36	0.533	0	1	2	0	2	1,820.90	549	564	TRUE	
SNU216_PC2_03	modulator of estrogen induced transcription isofc	IPI00019996,IPI00171749	117,151.10	100.00%	5	8	10	0.07%	3.94%	SPGHMVILDQTK	K	G	95.00%	2.81	0.374	0	1	1	0	2	1,405.65	553	564	TRUE	
SNU216_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	99.80%	2	3	3	0.02%	6.40%	KVEAPETNIDKTPK	K	K	95.00%	4.25	0.382	0	0	1	0	2	1,649.81	310	323	TRUE	
SNU216_PC2_03	Zinc finger CCCH-type domain-containing protein	IPI00328306	89,346.10	99.80%	2	3	3	0.02%	6.40%	VESSENVPSPTHPPVVINAADDDEDDDDQI	K	T	95.00%	4.47	0.338	0	0	1	1	2	4,208.71	141	178	TRUE	
SNU216_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	5	5	0.03%	5.51%	HAIMRSPQMVSAIVR	R	T	95.00%	3	0.333	0	0	1	0	2	1,775.88	186	200	TRUE	
SNU216_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	5	5	0.03%	5.51%	RLSVELTSSLFR	K	T	95.00%	2.92	0.375	0	0	1	0	2	1,487.76	673	684	TRUE	
SNU216_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	5	5	0.03%	5.51%	RTSMGGTQQQFVEGVR	R	M	95.00%	2.88	0.239	0	1	1	0	2	1,860.84	550	565	TRUE	
SNU216_PC2_03	Isoform 1 of Beta-catenin	IPI00017292	85,497.00	100.00%	4	5	5	0.03%	5.51%	SPQMVSAIVR	R	T	95.00%	2.1	0.308	0	1	0	0	2	1,167.56	191	200	TRUE	
SNU216_PC2_03	Rab6 GTPase activating protein, GAPCenA	IPI00016702	114,146.20	99.80%	1	1	1	0.01%	1.71%	DVRNSDMHLLDLESMGK	K	S	95.00%	3.48	0.365	0	0	1	0	2	2,039.89	284	300	TRUE	
SNU216_PC2_03	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	4.03	0.361	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216_PC2_03	Protein CASC3	IPI00289491	76,277.90	100.00%	5	6	6	0.04%	12.10%	DPSPEADAPVLGSPEKEEAASEPPAAAPDA/	R	K	95.00%	4.01	0.403	0	0	0	1	2	4,192.96	361	401	TRUE	
SNU216_PC2_03	Protein CASC3	IPI00289491	76,277.90	100.00%	5	6	6	0.04%	12.10%	QSGDGQESTEPVENK	R	V	95.00%	3.38	0.454	0	1	0	0	2	1,684.67	147	161	TRUE	
SNU216_PC2_03	Protein CASC3	IPI00289491	76,277.90	100.00%	5	6	6	0.04%	12.10%	SEANDAVNSSTKEEK	K	G	95.00%	3.51	0.394	0	1	0	0	2	1,688.70	117	131	TRUE	
SNU216_PC2_03	Protein CASC3	IPI00289491	76,277.90	100.00%	5	6	6	0.04%	12.10%	STVTGERQSGDGQESTEPVENK	K	V	95.00%	3.93	0.445	0	1	1	0	2	2,415.03	140	161	TRUE	
SNU216_PC2_03	Protein CASC3	IPI00289491	76,277.90	100.00%	5	6	6	0.04%	12.10%	YGSPPQR	R	D	81.70%	1.41	0.332	0	1	0	0	2	884.3663	263	269	TRUE	
SNU216_PC2_03	Isoform 1 of GRIP1-associated protein 1	IPI00413942,IPI00607628,IP	96,077.50	99.90%	1	1	1	0.01%	1.90%	SGLEELVLSEMNSPSR	R	T	95.00%	3.05	0.279	0	1	0	0	2	1,827.82	642	657	TRUE	
SNU216_PC2_03	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	4	7	0.05%	11.60%	AAPEASSPPASPLQHLLPGK	K	A	95.00%	2.62	0.3	0	1	0	0	2	2,048.02	686	705	TRUE	
SNU216_PC2_03	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	4	7	0.05%	11.60%	GLLAQGLRPESPPPAGPLLNGAPAGESPQPI	R	A	95.00%	4.63	0.479	0	0	3	2	2	3,176.55	655	685	TRUE	
SNU216_PC2_03	Niban-like protein	IPI00456750,IPI00647286	84,138.60	100.00%	3	4	7	0.05%	11.60%	QVVSVVQDEEVGLPFEASPESPPPASPDGV	K	G	95.00%	6.24	0.595	0	0	1	0	2	3,641.73	621	654	TRUE	
SNU216_PC2_03	Deubiquitinating protein VCIP135	IPI00064162	134,322.00	99.80%	2	2	2	0.01%	1.72%	APYSPTTSK	K	E	95.00%	1.78	0.372	0	1	0	0	2	1,031.44	765	773	TRUE	
SNU216_PC2_03	Deubiquitinating protein VCIP135	IPI00064162	134,322.00	99.80%	2	2	2	0.01%	1.72%	DGPSSAPATPTK	R	A	95.00%	1.8	0.274	0	1	0	0	2	1,208.52	753	764	TRUE	
SNU216_PC2_03	Isoform 1 of Cell division cycle 2-like protein kina	IPI00456970	164,928.60	99.80%	1	1	1	0.01%	0.99%	GGDVSPSPYSSSSWR	R	R	95.00%	2.84	0.255	0	1	0	0	2	1,648.66	379	393	TRUE	
SNU216_PC2_03	Zinc finger protein 217	IPI00025310	115,272.80	99.80%	2	2	2	0.01%	3.34%	AGAESPTMSVDGR	R	Q	95.00%	2.48	0.437	0	1	0	0	2	1,357.55	403	415	TRUE	
SNU216_PC2_03	Zinc finger protein 217	IPI00025310	115,272.80	99.80%	2	2	2	0.01%	3.34%	TKADVTPPPDGSTTHNLEVSPK	R	E	95.00%	4.72	0.451	0	0	1	0	2	2,371.12	643	664	TRUE	
SNU216_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	5.2	0.475	0	0	1	0	2	2,428.13	618	639	TRUE	
SNU216_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	GADNDGSGSESGYTTPK	K	K	95.00%	4.32	0.512	0	1	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	NDSWGSFDLR	R	A	95.00%	2.22	0.461	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC2_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	4	0.03%	8.78%	RTSPQVLGSILK	K	S	95.00%	2.83	0.234	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC2_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	5	0.03%	5.02%	EEDFRRPSEEDFR	R	R	92.90%	2.49	0.172	0	0	1	0	2	1,791.73	584	596	TRUE	
SNU216_PC2_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	5	0.03%	5.02%	FPPEDFRHSPEDFR	R	R	95.00%	3.24	0.255	0	0	2	0	2	1,855.78	567	580	TRUE	
SNU216_PC2_03	IMP dehydrogenase/GMP reductase family protei	IPI00217626	89,031.60	100.00%	3	3	5	0.03%	5.02%	SRSPLGFYVHLK	R	N	95.00%	2.95	0.216	0	0	2	0	2	1,483.75	278	289	TRUE	
SNU216_PC2_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	4	0.03%	6.60%	DTEGGPKEEESPV	K	-	95.00%	2.29	0.281	0	1	0	0	2	1,453.57	488	500	TRUE	
SNU216_PC2_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	4	0.03%	6.60%	EEETSIDVAGKPNEVTK	K	A	95.00%	3.32	0.387	0	1	1	0	2	1,925.87	463	479	TRUE	
SNU216_PC2_03	Monocarboxylate transporter 1	IPI00024650	53,960.00	100.00%	3	4	4	0.03%	6.60%	ESKEEETSIDVAGKPNEVTK	K	A	95.00%	3.88	0.397	0	0	1	0	2	2,270.04	460	479	TRUE	
SNU216_PC2_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	99.80%	2	3	3	0.02%	1.82%	ESASPTIPNLDLLEAHTK	R	E	95.00%	3.54	0.311	0	1	1	0	2	2,015.97	536	553	TRUE	
SNU216_PC2_03	PHD finger protein 2	IPI00260388,IPI00376493,IP	120,995.70	99.80%	2	3	3	0.02%	1.82%	SRESASPTIPNLDLLEAHTK	K	E	95.00%	3.3	0.293	0	0	1	0	2	2,259.10	534	553	TRUE	
SNU216_PC2_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	DLSPTLIDNSAAK	R	Q	95.00%	2.49	0.309	0	1	0	0	2	1,424.67	486	498	TRUE	
SNU216_PC2_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	HKFQSQADQDQQASGLQSPPSR	K	D	95.00%	3.1	0.329	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC2_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	100.00%	3	3	3	0.02%	8.45%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	3.56	0.295	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC2_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	4	0.03%	4.33%	ALEEGDGSVSGSSPR	R	S	95.00%	3.5	0.385	0	1	0	0	2	1,527.63	418	432	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	4	0.03%	4.33%	IDENSDKEMEVEESPEK	K	I	95.00%	3.92	0.458	0	1	1	0	2	2,087.84	493	509	TRUE	
SNU216_PC2_03	Formin binding protein 4	IPI00170778	110,063.40	100.00%	3	4	4	0.03%	4.33%	RPILQLSPPGPR	R	G	86.90%	2.06	0.195	0	0	1	0	2	1,410.76	12	23	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	DPLGGLADMFGQMPGSGIGTGPGVIQDRF	R	H	95.00%	4.88	0.427	0	0	1	1	2	3,599.65	366	400	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI(	K	H	95.00%	3.61	0.475	0	0	1	2	2	4,001.82	363	400	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	100.00%	3	5	6	0.04%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.74	0.299	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC2_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.30%	2	2	2	0.01%	7.56%	VEEASPGRPSSVDTLLSPTALIDSILR	R	E	86.50%	5.55	0.0491	0	0	1	0	2	2,903.48	310	336	TRUE	
SNU216_PC2_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	99.30%	2	2	2	0.01%	7.56%	VKEEPPSPPQSPR	R	V	95.00%	2.8	0.389	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216_PC2_03	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	99.80%	2	2	3	0.02%	5.75%	ETPRPEGGSPSPAGTPPQPK	R	R	95.00%	2.94	0.312	0	2	0	0	2	2,146.92	476	495	TRUE	
SNU216_PC2_03	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	99.80%	2	2	3	0.02%	5.75%	GAGAAGLPQPPRESPQLHER	R	E	95.00%	3.41	0.215	0	0	1	0	2	2,148.03	456	475	TRUE	
SNU216_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	7	0.05%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	Q	95.00%	7.64	0.514	0	0	3	1	2	3,353.45	35	69	TRUE	
SNU216_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	7	0.05%	5.61%	GGPEGVAAQAVASAASAGPADAEMEEIFD	K	E	95.00%	6.2	0.483	0	0	1	1	2	3,609.61	35	71	TRUE	
SNU216_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00297211	121,910.80	100.00%	3	5	7	0.05%	5.61%	QTELFAHFIQPAAQKTPTSPLK	K	M	95.00%	5.09	0.474	0	0	1	0	2	2,613.25	98	119	TRUE	
SNU216_PC2_03	smooth muscle cell associated protein-1 isoform	IPI00072534	103,078.90	99.80%	1	2	2	0.01%	1.48%	PATPGASSVEQLRK	R	E	95.00%	3.87	0.4	0	1	1	0	2	1,520.75	13	26	TRUE	
SNU216_PC2_03	Isoform 2 of Pleckstrin homology-like domain fan	IPI00168459,IPI00410259,IP	139,979.00	99.80%	1	2	2	0.01%	1.65%	LQLSDEESVFEEALMSPDTR	K	Y	95.00%	4.45	0.557	0	1	1	0	2	2,376.03	513	532	TRUE	
SNU216_PC2_03	Pre-B-cell leukemia transcription factor interactin	IPI00332106,IPI00645060	77,684.10	99.80%	1	2	2	0.01%	1.92%	ALQAPHSPSKTDGK	R	E	95.00%	2.96	0.448	0	1	1	0	2	1,516.72	8	21	TRUE	
SNU216_PC2_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	3	3	0.02%	4.92%	ALSSGGSITSPPLSPALPK	R	Y	95.00%	2.99	0.319	0	1	0	0	2	1,859.95	17	35	TRUE	
SNU216_PC2_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	3	3	0.02%	4.92%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	83.70%	6.55	0.0119	0	0	1	0	2	3,783.64	362	396	TRUE	
SNU216_PC2_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	100.00%	3	3	3	0.02%	4.92%	WRPHSPDGPR	R	S	95.00%	2.14	0.266	0	1	0	0	2	1,284.56	232	241	TRUE	
SNU216_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	5	0.03%	7.47%	ESAAPASPAPSPAPSPTPAPPQK	K	E	95.00%	2.77	0.323	0	2	1	0	2	2,233.05	538	560	TRUE	
SNU216_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	5	0.03%	7.47%	PAPPQEESPSSEAK	R	S	95.00%	2.31	0.223	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216_PC2_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	5	0.03%	7.47%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.53	0.383	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	8	8	0.05%	6.97%	KPSKEMSSDSEYDSDDDR	K	T	82.60%	2.24	0.211	0	0	1	0	2	2,170.81	582	599	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	8	8	0.05%	6.97%	NKPGPNIESGNEDDDASFK	K	I	95.00%	3.82	0.479	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	8	8	0.05%	6.97%	QSFDDNDSEELEDKDSK	K	S	95.00%	2.91	0.377	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	8	8	0.05%	6.97%	VEMYSGSDDDDDFNKLPK	K	K	95.00%	3.96	0.354	0	1	1	0	2	2,234.82	131	148	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	8	8	0.05%	6.97%	WDGSEEDEDNSK	K	K	95.00%	2.56	0.379	0	1	0	0	2	1,490.50	161	172	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	100.00%	6	8	8	0.05%	6.97%	WDGSEEDEDNSKK	K	I	95.00%	2.31	0.376	0	1	0	0	2	1,618.59	161	173	TRUE	
SNU216_PC2_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	1	1	1	0.01%	1.53%	GRSFAGNLNTYK	R	R	95.00%	3.24	0.31	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216_PC2_03	Acidic 82 kDa protein mRNA	IPI00290410	90,672.40	99.60%	1	1	1	0.01%	3.09%	VTPTKESYTEEIVSEAESHVSGISR	K	I	91.40%	5.33	0.0493	0	0	1	0	2	2,815.30	128	152	TRUE	
SNU216_PC2_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	5	8	0.05%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.66	0.289	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC2_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	5	8	0.05%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.35	0.322	0	3	2	0	2	2,188.85	552	570	TRUE	
SNU216_PC2_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	5	8	0.05%	5.74%	SDAEEDGGTVSQEEEDR	K	K	95.00%	3.55	0.448	0	1	0	0	2	1,932.70	554	570	TRUE	
SNU216_PC2_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	4	5	8	0.05%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	2.67	0.394	0	1	0	0	2	2,285.94	554	573	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	99.30%	2	2	2	0.01%	2.73%	EYDSGDTDEIIAMK	R	K	85.30%	2.15	0.175	0	1	0	0	2	1,746.62	249	262	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar protein 8	IPI00161085,IPI00480054,IP	117,507.90	99.30%	2	2	2	0.01%	2.73%	LQDSSSEEEDVTEETDHR	R	N	95.00%	2.85	0.326	0	0	1	0	2	2,345.77	953	970	TRUE	
SNU216_PC2_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	RRSQSIEQESQEK	R	Q	95.00%	3.18	0.287	0	0	1	0	2	1,684.77	414	426	TRUE	
SNU216_PC2_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	RSQSIEQESQEK	R	Q	88.70%	2.55	0.151	0	1	0	0	2	1,528.66	415	426	TRUE	
SNU216_PC2_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	3	3	3	0.02%	2.38%	SQSIEQESQEK	R	Q	95.00%	2.4	0.414	0	1	0	0	2	1,372.56	416	426	TRUE	
SNU216_PC2_03	Isoform 1 of High-affinity cAMP-specific and IBM	IPI00030976,IPI00182447,IP	93,306.40	99.80%	1	2	2	0.01%	1.45%	RLSGNEYVLSTK	R	N	95.00%	2.68	0.429	0	1	1	0	2	1,446.70	455	466	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	DGLPRTPSRR	K	S	94.60%	2.06	0.23	0	0	1	0	2	1,234.61	1429	1438	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	ELSNSPLRENSFGSPLEFR	K	N	95.00%	3.84	0.347	0	0	1	0	2	2,259.04	1316	1334	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	GEGDAPFSEPGTTSTQRPSSPETATK	R	Q	83.00%	3.44	0.0171	0	1	0	0	2	2,715.18	304	329	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	HASSSPESPKPAPAPGSHR	R	E	95.00%	3.59	0.498	0	0	3	1	2	2,136.83	433	451	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	HGGSPQPLATTPLSQEPVNPPSEASPTR	R	D	95.00%	6.62	0.529	0	0	1	0	2	2,932.38	374	401	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	QGSITSPQANEQSVTPQRR	R	S	95.00%	2.91	0.282	0	0	1	0	2	2,164.01	852	870	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	QPSSPYEDKDKDK	K	K	95.00%	3.31	0.304	0	0	1	0	2	1,616.68	330	342	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	SSSPVTELASR	R	S	82.10%	1.66	0.24	0	1	0	0	2	1,293.51	1101	1111	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	SSTPPGESYFGVSSLQLK	K	G	83.20%	2.34	0.165	0	1	0	0	2	1,963.91	1041	1058	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	THTTALAGRSPSPASGR	K	R	95.00%	2.68	0.293	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	TSPPLLDR	R	A	95.00%	1.49	0.425	0	1	0	0	2	978.4658	2397	2404	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	TVARTPLGQR	K	S	83.20%	1.9	0.205	0	1	0	0	2	1,178.60	1527	1536	TRUE	
SNU216_PC2_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	13	14	16	0.11%	7.74%	VKAQTPPGPSLSGSK	K	S	91.90%	3.05	0.132	0	0	1	0	2	1,533.77	999	1013	TRUE	
SNU216_PC2_03	Calmin	IPI00101942	111,652.50	100.00%	2	2	2	0.01%	2.99%	SNSLPIKK	R	T	94.60%	1.96	0.234	0	1	0	0	2	966.5021	417	424	TRUE	
SNU216_PC2_03	Calmin	IPI00101942	111,652.50	100.00%	2	2	2	0.01%	2.99%	VPSPHETKPDEDAEAFENHAEK	K	L	95.00%	4.41	0.31	0	0	0	1	2	2,557.09	583	604	TRUE	
SNU216_PC2_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00008422,IPI00220119	117,579.40	100.00%	3	3	3	0.02%	5.06%	ANTPDSDITEK	R	T	95.00%	1.86	0.278	0	1	0	0	2	1,350.49	52	62	TRUE	
SNU216_PC2_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00008422,IPI00220119	117,579.40	100.00%	3	3	3	0.02%	5.06%	ANTPDSDITEKTEDSSVPETPDNER	R	K	95.00%	2.92	0.261	0	0	1	0	2	2,907.15	52	76	TRUE	
SNU216_PC2_03	Isoform 2 of SWI/SNF-related matrix-associated a	IPI00008422,IPI00220119	117,579.40	100.00%	3	3	3	0.02%	5.06%	TFNKDTVIIVSEPSEDEESQGLPTMAR	K	R	95.00%	4.74	0.163	0	0	1	0	2	3,153.37	114	140	TRUE	
SNU216_PC2_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	6	8	0.05%	3.20%	PASPTPVIVASHTANKEEK	K	S	95.00%	4.65	0.462	0	0	1	1	2	2,056.01	856	874	TRUE	
SNU216_PC2_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	6	8	0.05%	3.20%	STAQQELDGKPASPTPVIVASHTANK	R	E	95.00%	3.3	0.255	0	0	1	1	2	2,727.34	846	871	TRUE	
SNU216_PC2_03	Coatomer subunit beta'	IPI00220219	102,357.90	100.00%	3	6	8	0.05%	3.20%	STAQQELDGKPASPTPVIVASHTANKEEK	R	S	95.00%	5.1	0.422	0	0	1	3	2	3,113.52	846	874	TRUE	
SNU216_PC2_03	Isoform III of AT-rich interactive domain-containir	IPI00218648	134,869.80	99.20%	2	2	2	0.01%	3.70%	NGTDELDNMNSTER	K	I	95.00%	1.21	0.395	0	0	1	0	2	1,851.55	1103	1116	TRUE	
SNU216_PC2_03	Isoform III of AT-rich interactive domain-containir	IPI00218648	134,869.80	99.20%	2	2	2	0.01%	3.70%	SQEREETESKCDSEGEEDEEDMEPCLTGTK	K	V	83.00%	1.5	0.276	0	0	1	0	2	3,774.29	549	578	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	AEPSEVDMNSPK	K	S	87.40%	2.2	0.162	0	1	0	0	2	1,383.55	62	73	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	EEPSQNDISPK	K	T	92.60%	1.96	0.248	0	1	0	0	2	1,323.55	81	91	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	KAEPSEVDMNSPK	K	S	95.00%	4.06	0.423	0	1	0	0	2	1,511.64	61	73	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	KEEPSQNDISPK	K	T	95.00%	3.63	0.359	0	1	0	0	2	1,451.64	80	91	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	KKAEPSEVDMNSPK	K	S	95.00%	3.93	0.475	0	1	1	0	2	1,639.74	60	73	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	KKEEPSQNDISPK	K	T	95.00%	3.71	0.477	0	2	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	NEEPSEEEIDAPKPK	K	K	95.00%	4	0.461	0	1	1	0	2	1,791.77	117	131	TRUE	
SNU216_PC2_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	100.00%	8	11	12	0.08%	5.75%	VTKNEEPSEEEIDAPKPK	K	K	95.00%	3.63	0.283	0	0	1	0	2	2,119.98	114	131	TRUE	
SNU216_PC2_03	triple functional domain	IPI00657953	346,902.60	99.20%	2	2	2	0.01%	1.29%	GAANASGSSPDAPAK	K	D	95.00%	3.22	0.357	0	1	0	0	2	1,380.58	2421	2435	TRUE	
SNU216_PC2_03	triple functional domain	IPI00657953	346,902.60	99.20%	2	2	2	0.01%	1.29%	LLVRPTSSETPSAAELVSAIEELVK	R	S	84.30%	6.29	0.0006	0	0	1	0	2	2,719.42	1894	1918	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	AVTPVPTK	R	T	95.00%	2.13	0.278	0	2	0	0	2	892.4541	524	531	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	AVTPVPTKTEEVSNLK	R	T	95.00%	2.73	0.33	0	0	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	ESPRPLQLPGAEGPAISDGEEGGGEPGAGG	R	R	95.00%	5.84	0.554	0	0	2	1	2	3,687.61	74	113	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	ETESAPGSPR	K	A	95.00%	1.79	0.287	0	2	0	0	2	1,110.45	514	523	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.3	0.363	0	1	1	0	2	2,052.95	544	561	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	HSSNPPLESHVGWVMDSR	R	E	95.00%	4.52	0.467	0	0	1	0	2	2,114.91	822	839	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	KNTFTAWSDEESDYEIDDRDVNK	R	I	92.10%	4.32	0.107	0	0	1	0	2	2,937.15	620	642	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	NALPPVLTTVNGQSPPEHSAPAK	K	V	95.00%	3.48	0.431	0	0	3	0	2	2,405.19	130	152	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	NTFTAWSDEESDYEIDDR	K	D	95.00%	4.04	0.169	0	2	0	0	2	2,272.86	621	638	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	NTFTAWSDEESDYEIDDRDVNK	K	I	95.00%	4.45	0.374	0	0	2	0	2	2,729.09	621	642	TRUE	
SNU216_PC2_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	11	13	22	0.14%	14.70%	SLPTTVPESPNYR	R	N	95.00%	2.68	0.359	0	3	0	0	2	1,540.70	766	778	TRUE	
SNU216_PC2_03	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.21%	SLHPWYGITPTSSPK	K	T	95.00%	2.98	0.316	0	1	0	0	2	1,750.82	459	473	TRUE	
SNU216_PC2_03	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.21%	SPVPSPGSSSPQLQVK	R	S	95.00%	3.7	0.423	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216_PC2_03	Molecule interacting with Rab13	IPI00174962	93,442.20	100.00%	3	3	3	0.02%	5.21%	VEQMPQASPGLAPR	R	T	95.00%	2.55	0.301	0	1	0	0	2	1,560.72	571	584	TRUE	
SNU216_PC2_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	AATEALGEKSPDSATVSGYDIMK	K	S	95.00%	4.07	0.351	0	0	1	0	2	2,421.09	968	990	TRUE	
SNU216_PC2_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	AEEQQLPPPLSPPSPSTPNHR	K	R	95.00%	4.51	0.423	0	0	2	0	2	2,359.11	279	299	TRUE	
SNU216_PC2_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	DFTNEAPPAPLPDASASPLSPHR	R	R	95.00%	4.52	0.412	0	0	1	0	2	2,467.13	346	368	TRUE	
SNU216_PC2_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	DFTNEAPPAPLPDASASPLSPHRR	R	A	95.00%	3.9	0.327	0	0	1	0	2	2,623.23	346	369	TRUE	
SNU216_PC2_03	myosin phosphatase-Rho interacting protein isofc	IPI00295457	118,105.80	100.00%	5	5	6	0.04%	8.00%	MEVDRSPGLPMSDLK	R	T	84.00%	2.58	0.116	0	1	0	0	2	1,754.79	614	628	TRUE	
SNU216_PC2_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	2	2	0.01%	1.73%	DYDDMSPR	R	R	95.00%	1.56	0.396	1	1	0	0	2	1,078.35	279	286	TRUE	
SNU216_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	5	7	0.05%	4.33%	QEEIDESDDDLDDKPSPIK	R	K	95.00%	4.79	0.315	0	0	1	0	2	2,267.94	714	732	TRUE	
SNU216_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	5	7	0.05%	4.33%	QEEIDESDDDLDDKPSPIKK	R	E	95.00%	3.98	0.444	0	1	2	0	2	2,476.01	714	733	TRUE	
SNU216_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	5	7	0.05%	4.33%	SHPLDLSPNVQSR	K	D	95.00%	2.19	0.227	0	1	0	0	2	1,529.71	1024	1036	TRUE	
SNU216_PC2_03	Isoform 1 of 130-kDa phosphatidylinositol 4,5-bis	IPI00376976,IPI00410303	125,764.00	100.00%	4	5	7	0.05%	4.33%	TLSDPPSPLPHGPPNK	R	G	95.00%	2.76	0.211	0	0	2	0	2	1,733.83	840	855	TRUE	
SNU216_PC2_03	Isoform 1 of Serine/threonine-protein kinase TAO	IPI00002232	116,072.10	99.70%	2	2	2	0.01%	3.20%	AGSLKDPEIAELFFKEDPEK	R	L	95.00%	3.84	0.281	0	0	1	0	2	2,343.12	7	26	TRUE	
SNU216_PC2_03	Isoform 1 of Serine/threonine-protein kinase TAO	IPI00002232	116,072.10	99.70%	2	2	2	0.01%	3.20%	ASDPQSPPQVSR	R	H	93.60%	2.28	0.179	0	1	0	0	2	1,348.59	416	427	TRUE	
SNU216_PC2_03	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	4.61%	AQSSPASATFPVSVQEPPTKPR	R	F	95.00%	4.75	0.494	0	0	1	0	2	2,362.14	630	651	TRUE	
SNU216_PC2_03	Histone deacetylase 4	IPI00010088	119,069.10	99.80%	2	2	2	0.01%	4.61%	TQSAPLPQNAQALQHLVIQQQHQQFLEK	R	H	95.00%	3.55	0.179	0	0	0	1	2	3,303.66	465	492	TRUE	
SNU216_PC2_03	Lupus La protein	IPI00009032	46,839.00	99.80%	2	3	3	0.02%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.22	0.407	0	0	1	1	2	2,405.96	364	384	TRUE	
SNU216_PC2_03	Lupus La protein	IPI00009032	46,839.00	99.80%	2	3	3	0.02%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	3.98	0.278	0	0	0	1	2	2,635.11	362	384	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	7	0.05%	7.98%	AAGARPLTSPESLSR	K	D	95.00%	2.62	0.328	0	1	0	0	2	1,592.78	1067	1081	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	7	0.05%	7.98%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	95.00%	3.7	0.288	0	0	0	1	2	2,865.29	88	118	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	7	0.05%	7.98%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	3.91	0.35	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	7	0.05%	7.98%	ENASPAPGTTAEEAMSR	R	G	95.00%	3.18	0.412	0	0	1	1	2	1,798.73	964	980	TRUE	
SNU216_PC2_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	5	7	7	0.05%	7.98%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	3.69	0.315	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216_PC2_03	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	3	3	0.02%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3	0.261	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216_PC2_03	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	99.80%	2	3	3	0.02%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	5.52	0.564	0	0	1	1	2	2,776.47	327	353	TRUE	
SNU216_PC2_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	4.90%	AIGSTSKPQESPK	R	G	95.00%	2.82	0.405	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC2_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	4.90%	AIGSTSKPQESPKGK	R	R	95.00%	2.85	0.353	0	1	0	0	2	1,594.78	231	245	TRUE	
SNU216_PC2_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	100.00%	3	3	3	0.02%	4.90%	KTPSKPPAQLSPSVPK	K	R	95.00%	2.92	0.336	0	0	1	0	2	1,741.93	256	271	TRUE	
SNU216_PC2_03	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	99.90%	2	3	3	0.02%	1.70%	KVLSPTAAKPSPFEGK	K	T	95.00%	3.4	0.349	0	0	1	0	2	1,736.90	310	325	TRUE	
SNU216_PC2_03	Serine/threonine-protein phosphatase 1 regulator	IPI00298731	99,058.80	99.90%	2	3	3	0.02%	1.70%	VLSPTAAKPSPFEGK	K	T	95.00%	2.9	0.413	0	1	1	0	2	1,608.80	311	325	TRUE	
SNU216_PC2_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	9.67%	GDSLKEPTSIAESSR	R	H	91.50%	2.13	0.208	0	1	0	0	2	1,656.75	325	339	TRUE	
SNU216_PC2_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	9.67%	GVGSPEPGPTAPYLGR	R	S	95.00%	2.82	0.246	0	1	0	0	2	1,634.76	565	580	TRUE	
SNU216_PC2_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	9.67%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.82	0.405	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	6	0.04%	1.45%	KHSPSPPPPTPTESR	R	K	95.00%	4.72	0.507	0	2	3	0	2	1,774.76	326	340	TRUE	
SNU216_PC2_03	SWI/SNF-related matrix-associated actin-depende	IPI00234252,IPI00556118	122,721.10	100.00%	2	3	6	0.04%	1.45%	RKHSPSPPPPTPTESR	K	K	95.00%	4.14	0.406	0	0	1	0	2	1,930.86	325	340	TRUE	
SNU216_PC2_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	4	6	0.04%	10.10%	RVSEVEEEKEPVPQLPSDDTR	R	V	95.00%	4.38	0.433	0	0	1	1	2	2,616.22	446	467	TRUE	
SNU216_PC2_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	4	6	0.04%	10.10%	SANGGSESDGEENIGWSTVNLDEEK	R	Q	95.00%	3.42	0.248	0	0	2	0	2	2,704.09	591	615	TRUE	
SNU216_PC2_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	3	4	6	0.04%	10.10%	VENMDISDEEEGGAPPPGSPQVLEEDEAELI	R	Q	95.00%	6.06	0.499	0	0	2	0	2	3,840.60	468	501	TRUE	
SNU216_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	6	8	10	0.07%	8.85%	DTSENADGQSDENKDDYTIPDEYR	K	I	95.00%	3.03	0.209	0	0	1	0	2	2,857.10	757	780	TRUE	
SNU216_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	6	8	10	0.07%	8.85%	EQEEKSGEDGEKDTK	K	D	86.50%	2.25	0.17	0	1	0	0	2	1,788.72	626	640	TRUE	
SNU216_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	6	8	10	0.07%	8.85%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.71	0.421	0	0	1	2	2	2,598.14	186	207	TRUE	
SNU216_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	6	8	10	0.07%	8.85%	SYSPDGK	R	E	95.00%	1.49	0.384	0	1	0	0	2	833.3078	596	602	TRUE	
SNU216_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	6	8	10	0.07%	8.85%	SYSPDGKESPSDK	R	K	95.00%	2.69	0.389	0	2	0	0	2	1,476.59	596	608	TRUE	
SNU216_PC2_03	Matrin-3	IPI00017297	94,626.70	100.00%	6	8	10	0.07%	8.85%	SYSPDGKESPSDKK	R	S	95.00%	3.14	0.293	0	1	0	1	2	1,604.68	596	609	TRUE	
SNU216_PC2_03	Double-strand-break repair protein rad21 homolc	IPI00006715	71,691.60	100.00%	1	1	1	0.01%	5.23%	EGSAFEDDDMLVSTTTSNLLLESEQSTSNLN	R	I	93.00%	4.9	0.0711	0	0	1	0	2	3,684.60	173	205	TRUE	
SNU216_PC2_03	Isoform 1 of Development and differentiation-enh	IPI00022058	111,653.40	99.80%	2	3	3	0.02%	3.18%	LLHEDLDESDDDMDEK	R	L	95.00%	3.74	0.31	0	1	1	0	2	1,998.75	693	708	TRUE	
SNU216_PC2_03	Isoform 1 of Development and differentiation-enh	IPI00022058	111,653.40	99.80%	2	3	3	0.02%	3.18%	SSSDPPAVHPPLPPLR	R	V	95.00%	2.57	0.232	0	0	1	0	2	1,746.86	820	835	TRUE	
SNU216_PC2_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	2	0.01%	1.71%	KNSLISSLEEEVSILNR	R	Q	95.00%	3.84	0.402	0	0	1	0	2	2,011.01	1223	1239	TRUE	
SNU216_PC2_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	238,274.50	100.00%	2	2	2	0.01%	1.71%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.13	0.41	0	1	0	0	2	2,003.91	1744	1762	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase TAO3	IPI00410485	105,408.50	100.00%	1	1	2	0.01%	2.45%	NGPLNESQEDEEDSEHGTSLNR	R	E	95.00%	5.11	0.517	0	0	2	0	2	2,537.01	318	339	TRUE	
SNU216_PC2_03	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	2	0.01%	1.27%	RSSDGSLSHEEDLAK	K	V	95.00%	3.27	0.277	0	0	1	0	2	1,710.73	237	251	TRUE	
SNU216_PC2_03	Isoform 2 of Liprin-alpha-1	IPI00219754	133,973.30	100.00%	2	2	2	0.01%	1.27%	SSDGSLSHEEDLAK	R	V	95.00%	2.32	0.282	0	1	0	0	2	1,634.60	238	251	TRUE	
SNU216_PC2_03	Sulfate transporter	IPI00032107	81,651.90	99.80%	2	2	2	0.01%	3.65%	DSAEGNDSYPSGIHLELQR	R	E	95.00%	4.17	0.546	0	0	1	0	2	2,167.93	15	33	TRUE	
SNU216_PC2_03	Sulfate transporter	IPI00032107	81,651.90	99.80%	2	2	2	0.01%	3.65%	EQHNVSPRDSAEGNDSYPSGIHLELQR	K	E	95.00%	4.82	0.221	0	0	1	0	2	3,195.35	7	33	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.17%	ERGSQSSDSSSSLSSHR	R	Y	93.10%	2.23	0.244	0	1	0	0	2	1,873.77	1949	1965	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.17%	SHVSSEPYEPISPPQVPVVHEK	R	Q	95.00%	4.71	0.46	0	0	1	0	2	2,522.20	2140	2161	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear receptor corepressor 1	IPI00289344	270,208.40	100.00%	3	3	3	0.02%	2.17%	SPGSISYLPSFFTK	R	L	95.00%	2.69	0.31	0	1	0	0	2	1,610.75	2184	2197	TRUE	
SNU216_PC2_03	Isoform 1 of AF4/FMR2 family member 4	IPI00004344,IPI00383219	98,206.30	99.90%	1	1	1	0.01%	1.63%	SSSPGKPQAVSSLNSSHSR	R	S	95.00%	4.22	0.378	0	0	1	0	2	1,992.91	178	196	TRUE	
SNU216_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.91%	AQKEEEEEEEGSPQEEEEEEEENR	R	A	95.00%	4.39	0.469	0	0	1	0	2	3,130.17	657	681	TRUE	
SNU216_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.91%	ELSPEGPGK	R	E	95.00%	2.01	0.294	0	1	0	0	2	993.4291	1230	1238	TRUE	
SNU216_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.91%	LPLLPPESPGPLR	R	Q	95.00%	2.1	0.275	0	1	0	0	2	1,465.78	846	858	TRUE	
SNU216_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.91%	MVEPENAVTITPLRPEDDYSPR	R	E	85.60%	3.03	0.139	0	0	1	0	2	2,609.20	816	837	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Isoform 1 of LAP4 protein	IPI00425560,IPI00425566	174,933.40	100.00%	5	5	5	0.03%	4.91%	NSLESISSIDR	R	E	95.00%	2.18	0.32	0	1	0	0	2	1,300.58	1219	1229	TRUE	
SNU216_PC2_03	Isoform 4 of Intersectin-1	IPI00220594,IPI00304740	195,535.50	99.80%	1	1	1	0.01%	1.33%	SAFTPATATGSSPSPVLGQGEK	R	V	95.00%	4.59	0.153	0	1	0	0	2	2,170.01	891	912	TRUE	
SNU216_PC2_03	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	4	4	4	0.03%	5.35%	AQEAEAQSEDDDEDTEEEQGEEK	K	E	95.00%	2.73	0.55	0	0	1	0	2	2,770.93	273	295	TRUE	
SNU216_PC2_03	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	4	4	4	0.03%	5.35%	AQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	4.55	0.353	0	0	1	0	2	3,028.06	273	297	TRUE	
SNU216_PC2_03	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	4	4	4	0.03%	5.35%	FAEDEEKSENSSEDGDITDK	R	S	95.00%	2.94	0.396	0	1	0	0	2	2,484.83	310	329	TRUE	
SNU216_PC2_03	Nucleolar protein with MIF4G domain 1	IPI00145593	96,260.90	100.00%	4	4	4	0.03%	5.35%	KAQEAEAQSEDDDEDTEEEQGEEKEK	K	G	95.00%	4.29	0.354	0	0	1	0	2	3,076.19	272	297	TRUE	
SNU216_PC2_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.80%	2	2	2	0.01%	2.10%	AKSLSAMDVEK	R	C	95.00%	2.11	0.344	0	1	0	0	2	1,258.58	603	613	TRUE	
SNU216_PC2_03	Isoform 1 of FYVE, RhoGEF and PH domain-conta	IPI00419100	160,820.20	99.80%	2	2	2	0.01%	2.10%	SLDEADSENKEEVSPLGSK	R	A	95.00%	3.5	0.3	0	0	1	0	2	2,113.92	1197	1215	TRUE	
SNU216_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	5	5	0.03%	6.78%	LRSYEDMIGEEVPSDQYYWAPLAQHER	R	G	95.00%	5.44	0.484	0	0	1	1	2	3,362.48	264	290	TRUE	
SNU216_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	5	5	0.03%	6.78%	SGDLGDMEPLK	R	G	95.00%	2.64	0.357	0	1	0	0	2	1,241.51	860	870	TRUE	
SNU216_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	5	5	0.03%	6.78%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	4.63	0.469	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC2_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	4	5	5	0.03%	6.78%	VGGSSVDLHR	R	F	87.80%	1.82	0.255	0	1	0	0	2	1,106.50	211	220	TRUE	
SNU216_PC2_03	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	KADTTTPTPTAILAPGSPASPPGSLEPK	R	A	95.00%	4.16	0.409	0	0	2	0	2	2,782.39	282	309	TRUE	
SNU216_PC2_03	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEK	K	R	95.00%	3.41	0.202	0	0	1	0	2	3,008.24	622	647	TRUE	
SNU216_PC2_03	BRD2 protein	IPI00014414,IPI00440502,IP	88,097.30	100.00%	3	3	4	0.03%	6.58%	TAPPALPTGYDSEEEEESRPMSYDEKR	K	Q	95.00%	4.56	0.31	0	0	0	1	2	3,164.34	622	648	TRUE	
SNU216_PC2_03	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	3	4	7	0.05%	6.22%	EMDESLANLSEDEYYSEEER	R	N	95.00%	3.73	0.315	0	1	0	0	2	2,517.95	122	141	TRUE	
SNU216_PC2_03	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	3	4	7	0.05%	6.22%	KLPPPPPQAPPEEENESEPEEPSGVEGAAFQ	K	L	95.00%	5.76	0.557	0	0	3	2	2	3,606.63	150	182	TRUE	
SNU216_PC2_03	Isoform 1 of Lysine-specific histone demethylase	IPI00456631	92,903.40	100.00%	3	4	7	0.05%	6.22%	LPPPPPQAPPEEENESEPEEPSGVEGAAFQS	K	L	95.00%	4.13	0.23	0	0	1	0	2	3,478.53	151	182	TRUE	
SNU216_PC2_03	Isoform 2 of Epidermal growth factor receptor kir	IPI00253281,IPI00301250	80,308.90	99.80%	2	3	4	0.03%	5.87%	DRSPAAETPPLQR	R	R	95.00%	2.44	0.26	0	2	1	0	2	1,517.71	180	192	TRUE	
SNU216_PC2_03	Isoform 2 of Epidermal growth factor receptor kir	IPI00253281,IPI00301250	80,308.90	99.80%	2	3	4	0.03%	5.87%	SLNSTPPPPPAPAPAPPPALAR	R	P	95.00%	3.63	0.327	0	0	1	0	2	2,196.12	549	570	TRUE	
SNU216_PC2_03	Isoform 1 of Ubiquitin conjugation factor E4 B	IPI00005715	146,189.50	99.80%	2	2	2	0.01%	2.92%	LAGGQTSQPTTPLTSPQR	R	E	95.00%	3.83	0.447	0	1	0	0	2	1,919.92	17	34	TRUE	
SNU216_PC2_03	Isoform 1 of Ubiquitin conjugation factor E4 B	IPI00005715	146,189.50	99.80%	2	2	2	0.01%	2.92%	TVEDLKNNESQWKDSPLATR	R	H	95.00%	4.57	0.415	0	0	1	0	2	2,411.12	789	808	TRUE	
SNU216_PC2_03	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	2	2	0.01%	7.34%	EAANEAGDSSQDEAEDDVK	R	Q	95.00%	2.99	0.412	0	1	0	0	2	2,139.73	153	171	TRUE	
SNU216_PC2_03	Isoform 1 of DNA-directed RNA polymerases III 8	IPI00220045,IPI00643874	79,898.20	99.80%	2	2	2	0.01%	7.34%	IKEEPVSEEGEEDEEQEAEEEPMDTSPSGLH	R	L	95.00%	5.41	0.454	0	0	0	1	2	3,780.55	497	529	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp686D22141	IPI00464999	128,784.60	99.80%	2	2	2	0.01%	1.44%	APAGPSLEETSVSSPK	K	G	95.00%	3.78	0.466	0	1	0	0	2	1,636.75	630	645	TRUE	
SNU216_PC2_03	Hypothetical protein DKFZp686D22141	IPI00464999	128,784.60	99.80%	2	2	2	0.01%	1.44%	KAPAGPSLEETSVSSPK	K	G	95.00%	3.46	0.445	0	0	1	0	2	1,764.84	629	645	TRUE	
SNU216_PC2_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	99.80%	1	1	1	0.01%	4.45%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	3.5	0.384	0	0	1	0	2	2,205.10	225	244	TRUE	
SNU216_PC2_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.23	0.273	0	0	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC2_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	2	2	0.01%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.02	0.425	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC2_03	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	2	2	2	0.01%	2.91%	GGDSIGETPTPGASKR	R	K	95.00%	2.24	0.305	0	1	0	0	2	1,689.69	319	334	TRUE	
SNU216_PC2_03	Splicing factor 3B subunit 1	IPI00026089	145,820.30	100.00%	2	2	2	0.01%	2.91%	SRWDETPASQMGGSTPVLTPGK	K	T	95.00%	4.61	0.44	0	0	1	0	2	2,382.08	336	357	TRUE	
SNU216_PC2_03	Isoform 1 of Bromodomain adjacent to zinc finge	IPI00069817,IPI00216695,IP	170,907.00	100.00%	1	1	1	0.01%	1.15%	LAEDEGDSEPEAVGQSR	R	G	95.00%	3.75	0.385	0	1	0	0	2	1,868.75	1461	1477	TRUE	
SNU216_PC2_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	5	5	0.03%	12.10%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	4.59	0.534	0	0	1	1	2	3,222.36	68	95	TRUE	
SNU216_PC2_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	5	5	0.03%	12.10%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.23	0.601	0	1	1	0	2	2,073.94	9	28	TRUE	
SNU216_PC2_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	100.00%	3	5	5	0.03%	12.10%	VGGVSPEEHPAPEVSTPFPPLPPEPEGGGEE	K	V	95.00%	3.56	0.193	0	0	1	0	2	3,329.53	480	511	TRUE	
SNU216_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	3	3	3	0.02%	7.13%	DYLLSESEDEGDNDGER	K	K	95.00%	2.94	0.405	0	1	0	0	2	2,102.71	25	41	TRUE	
SNU216_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	3	3	3	0.02%	7.13%	DYLLSESEDEGDNDGERK	K	H	95.00%	3.04	0.44	0	1	0	0	2	2,230.81	25	42	TRUE	
SNU216_PC2_03	Isoform 1 of U3 small nucleolar RNA-associated p	IPI00107113	87,979.40	100.00%	3	3	3	0.02%	7.13%	EAATQEDPEQLPELEAHGVSESEGEERPVAE	K	E	95.00%	5.24	0.265	0	0	0	1	2	4,195.92	386	422	TRUE	
SNU216_PC2_03	Alpha-taxilin	IPI00470779	61,891.20	99.80%	1	1	1	0.01%	2.56%	RPEGPGAQAPSSPR	R	V	95.00%	2.76	0.269	0	1	0	0	2	1,486.68	504	517	TRUE	
SNU216_PC2_03	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	100.00%	2	3	3	0.02%	4.92%	IQQFDDGGSDEEDIWEEK	R	H	95.00%	3.9	0.413	0	1	1	0	2	2,219.87	529	546	TRUE	
SNU216_PC2_03	Isoform 4 of SAPS domain family member 3	IPI00019540,IPI00030624	88,954.30	100.00%	2	3	3	0.02%	4.92%	SSSGSTDSEESTDSEEEDGAK	R	Q	95.00%	3.11	0.463	0	1	0	0	2	2,213.77	558	578	TRUE	
SNU216_PC2_03	Myosin-9	IPI00019502	226,406.30	100.00%	1	1	1	0.01%	1.07%	KGAGDGSDEEVDGKADGAEAK	R	P	95.00%	5.23	0.48	0	0	1	0	2	2,085.86	1936	1956	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	99.80%	2	2	2	0.01%	8.37%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	3.98	0.456	0	0	1	0	2	2,008.94	381	399	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	99.80%	2	2	2	0.01%	8.37%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.26	0.478	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC2_03	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEK	R	N	95.00%	5.54	0.501	0	1	0	0	2	2,474.01	412	432	TRUE	
SNU216_PC2_03	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEKNETEPPK	R	G	95.00%	6.98	0.395	0	0	1	0	2	3,269.39	412	439	TRUE	
SNU216_PC2_03	Isoform 1 of Serologically defined colon cancer ar	IPI00301618	122,974.40	100.00%	3	3	3	0.02%	2.79%	NPYLLSEEEDDDVDGDVNVEKNETEPPKGK	R	K	95.00%	4.22	0.292	0	0	1	0	2	3,454.51	412	441	TRUE	
SNU216_PC2_03	AT rich interactive domain 4B isoform 2	IPI00302917,IPI00328828	137,609.60	99.70%	1	1	1	0.01%	1.47%	RLSKPPFQTNPSPEMVSK	R	L	94.80%	3.16	0.158	0	0	1	0	2	2,123.04	578	595	TRUE	
SNU216_PC2_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	9.64%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	3.25	0.159	0	1	1	0	2	2,027.92	76	93	TRUE	
SNU216_PC2_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	9.64%	GLEDVRPSVESLLDELESSVPSPVPAITVNQ	R	V	95.00%	5.56	0.338	0	0	0	1	2	4,229.03	209	247	TRUE	
SNU216_PC2_03	Isoform 3 of LAS1-like protein	IPI00009917,IPI00641990,IP	83,065.50	100.00%	1	2	2	0.01%	2.81%	MEVGPFSTGQESPTAENAR	R	L	95.00%	3.57	0.291	0	1	1	0	2	2,087.87	606	624	TRUE	
SNU216_PC2_03	Protein deltex 3-like protein	IPI00152503	83,556.20	99.90%	2	3	3	0.02%	2.30%	EGHETPMDIDSDDSK	K	A	95.00%	2.95	0.347	0	0	1	0	2	1,755.64	522	536	TRUE	
SNU216_PC2_03	Protein deltex 3-like protein	IPI00152503	83,556.20	99.90%	2	3	3	0.02%	2.30%	LKEGHETPMDIDSDDSK	K	A	95.00%	3.64	0.483	0	1	1	0	2	1,996.82	520	536	TRUE	
SNU216_PC2_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	4	0.03%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	3.42	0.457	0	2	1	0	2	1,811.70	491	505	TRUE	
SNU216_PC2_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	3	4	0.03%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.8	0.439	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	AEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	4.78	0.549	0	1	1	0	2	2,433.86	225	246	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	AEQGSEEEGEGEEEEEEGGESKADDPYAHL	K	K	95.00%	5.05	0.503	0	0	1	0	2	3,531.37	225	256	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	KAEQGSEEEGEGEEEEEEGGESK	K	A	95.00%	6.1	0.617	0	1	1	0	2	2,561.95	224	246	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	KAEQGSEEEGEGEEEEEEGGESKADDPYAH	K	K	95.00%	5.67	0.558	0	0	1	1	2	3,659.47	224	256	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	KLSVPTSDEEDEVPAPKPR	K	G	95.00%	5.15	0.489	0	2	3	0	2	2,174.04	104	122	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	LSVPTSDEEDEVPAPK	K	P	95.00%	2.45	0.275	0	1	0	0	2	1,872.76	105	120	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	4.83	0.476	0	2	3	0	2	2,045.94	105	122	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	QQPPEPEWIGDGESTSPSDK	K	V	95.00%	2.82	0.194	0	1	0	0	2	2,263.94	7	26	TRUE	
SNU216_PC2_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	100.00%	9	14	20	0.13%	8.87%	QQPPEPEWIGDGESTSPSDKVVK	K	K	95.00%	3.63	0.281	0	0	1	0	2	2,590.17	7	29	TRUE	
SNU216_PC2_03	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	100.00%	2	3	3	0.02%	1.84%	ALVVPEPEPDSDSNQER	K	K	95.00%	4.19	0.377	0	1	1	0	2	1,961.85	126	142	TRUE	
SNU216_PC2_03	Ubiquitin-protein ligase BRE1A	IPI00251559	113,980.40	100.00%	2	3	3	0.02%	1.84%	KALVVPEPEPDSDSNQER	R	K	95.00%	3.53	0.183	0	0	1	0	2	2,089.94	125	142	TRUE	
SNU216_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	13.70%	EESEESEAEPVQR	R	T	95.00%	2.84	0.395	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	13.70%	ESEQESEEEILAQK	K	K	95.00%	3.15	0.315	0	1	0	0	2	1,728.72	222	235	TRUE	
SNU216_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	13.70%	EVSDSEAGGGPQGER	R	K	95.00%	3.42	0.543	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	13.70%	EVSDSEAGGGPQGERK	R	N	95.00%	2.16	0.348	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	13.70%	GEESSEEEEKGYK	R	G	90.90%	1.72	0.27	0	1	0	0	2	1,660.57	156	168	TRUE	
SNU216_PC2_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	6	6	6	0.04%	13.70%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.69	0.322	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC2_03	hypothetical protein LOC84081 isoform 1	IPI00030274	66,390.60	99.80%	2	2	2	0.01%	10.40%	KTQQLHPVLQKPSVFGNDSDDDDETSVSE	K	E	95.00%	6.35	0.0717	0	0	0	1	2	3,779.74	15	47	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	hypothetical protein LOC84081 isoform 1	IPI00030274	66,390.60	99.80%	2	2	2	0.01%	10.40%	VEENPDADSDFDAKSSADDEIEETR	K	V	95.00%	2.69	0.319	0	0	1	0	2	3,024.06	240	264	TRUE	
SNU216_PC2_03	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	99.80%	2	2	2	0.01%	2.81%	DMKETIFELEDQVEQHR	K	A	82.30%	3.66	0.128	0	0	1	0	2	2,226.97	579	595	TRUE	
SNU216_PC2_03	spectrin domain with coiled-coils 1 NSP5b3b	IPI00291032,IPI00651629	110,244.40	99.80%	2	2	2	0.01%	2.81%	TSPTPPESATTVK	R	S	80.90%	1.97	0.188	0	1	0	0	2	1,395.64	728	740	TRUE	
SNU216_PC2_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	5	0.03%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.66	0.421	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216_PC2_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	3	5	0.03%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.55	0.213	0	0	2	0	2	2,081.86	488	504	TRUE	
SNU216_PC2_03	hypothetical protein LOC55215	IPI00019447,IPI00477345	102,390.30	100.00%	1	1	1	0.01%	0.79%	TIETSPSLSR	K	M	95.00%	2.4	0.394	0	1	0	0	2	1,170.54	41	50	TRUE	
SNU216_PC2_03	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	4	5	0.03%	7.95%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	D	95.00%	4.3	0.39	0	0	1	0	2	3,015.39	549	580	TRUE	
SNU216_PC2_03	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	4	5	0.03%	7.95%	AESSSGGGTVPSSAGILEQGPSPGDGSPPKF	R	N	95.00%	5.23	0.156	0	0	0	1	2	4,132.98	549	592	TRUE	
SNU216_PC2_03	nadrin isoform 1	IPI00064767	95,437.00	100.00%	3	4	5	0.03%	7.95%	SPSPPTQHTGQPPGQPSAPSQLSAPR	R	R	95.00%	3.89	0.371	0	0	2	1	2	2,687.26	674	699	TRUE	
SNU216_PC2_03	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	100.00%	2	2	2	0.01%	4.88%	ASLEDAPVDDLTR	R	K	95.00%	2.59	0.384	0	1	0	0	2	1,481.65	283	295	TRUE	
SNU216_PC2_03	Isoform 1 of Zinc finger CCCH type antiviral prote	IPI00410067,IPI00410071	101,445.60	100.00%	2	2	2	0.01%	4.88%	FLENGSQEDLLHGNPGSTYLASNSTSAPNV	R	S	95.00%	4.22	0.125	0	0	1	0	2	3,414.53	330	360	TRUE	
SNU216_PC2_03	Golgi phosphoprotein 2	IPI00171411,IPI00759659	46,272.70	100.00%	1	1	1	0.01%	7.07%	LRGEDDYNMDENEAESETDKQAALAGNDI	K	N	95.00%	5.06	0.498	0	0	1	0	2	3,336.36	354	382	TRUE	
SNU216_PC2_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.60%	2	2	2	0.01%	0.94%	GRNDSGEENVPLDLTR	R	E	92.70%	2.31	0.188	0	1	0	0	2	1,851.82	17	32	TRUE	
SNU216_PC2_03	rapamycin-insensitive companion of mTOR	IPI00455500	192,224.40	99.60%	2	2	2	0.01%	0.94%	NDSGEENVPLDLTR	R	E	95.00%	3.2	0.36	0	1	0	0	2	1,638.70	19	32	TRUE	
SNU216_PC2_03	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	111,177.60	99.80%	2	3	3	0.02%	8.23%	SAYQEYDSDSDVPEELKR	K	D	95.00%	3.1	0.289	0	1	1	0	2	2,210.91	552	569	TRUE	
SNU216_PC2_03	Hypothetical protein FLJ20097	IPI00418185,IPI00553067	111,177.60	99.80%	2	3	3	0.02%	8.23%	SPSVSPSKQPVSTSSK	R	T	95.00%	2.38	0.347	0	1	0	0	2	1,682.80	494	509	TRUE	
SNU216_PC2_03	plectin 1 isoform 11	IPI00398779	516,193.30	99.80%	2	2	2	0.01%	1.50%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.99	0.501	0	1	1	0	2	2,438.12	4224	4246	FALSE	IPI00398002,IPI00186711
SNU216_PC2_03	plectin 1 isoform 11	IPI00398779	516,193.30	99.80%	2	2	2	0.01%	1.50%	ARSDEGQLSPATR	R	G	95.00%	3.07	0.357	0	0	1	0	2	1,467.66	575	587	FALSE	IPI00398002,IPI00186711
SNU216_PC2_03	plectin 1 isoform 11	IPI00398779	516,193.30	99.80%	2	2	2	0.01%	1.50%	RTSSEDNLYLAVLR	K	A	95.00%	2.91	0.403	0	0	1	0	2	1,716.83	18	31	TRUE	
SNU216_PC2_03	plectin 1 isoform 11	IPI00398779	516,193.30	99.80%	2	2	2	0.01%	1.50%	SSSVGSSSSYPISPAVSR	R	T	95.00%	4.28	0.0516	0	2	0	0	2	1,834.82	4247	4264	FALSE	IPI00398002,IPI00186711
SNU216_PC2_03	plectin 1 isoform 11	IPI00398779	516,193.30	99.80%	2	2	2	0.01%	1.50%	TSSEDNLYLAVLR	R	A	95.00%	2.96	0.402	0	1	0	0	2	1,560.73	19	31	TRUE	
SNU216_PC2_03	heterogeneous nuclear ribonucleoprotein U isofor	IPI00644079	90,585.20	100.00%	1	1	1	0.01%	3.88%	LQAALDEEAGGRPAMEPGNGSLDLGGDS	K	S	95.00%	4.83	0.353	0	0	1	0	2	3,206.41	38	69	TRUE	
SNU216_PC2_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	2	3	3	0.02%	2.91%	AEAPSSPDVAPAGKEDSPSASGR	K	V	95.00%	4.06	0.346	0	0	1	0	2	2,262.99	1355	1377	TRUE	
SNU216_PC2_03	CTD-binding SR-like protein rA9	IPI00001813	178,610.30	100.00%	2	3	3	0.02%	2.91%	GAVAAEGASDTEREEPTESQGLAAR	R	L	95.00%	4.18	0.384	0	1	1	0	2	2,582.14	907	931	TRUE	
SNU216_PC2_03	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.60%	2	4	5	0.03%	5.30%	EQSSDLTPSGDVSPVKPLSR	R	S	95.00%	3.69	0.439	0	1	2	0	2	2,179.03	365	384	TRUE	
SNU216_PC2_03	Isoform 1 of DGCR8 protein	IPI00165970,IPI00549380	86,046.30	99.60%	2	4	5	0.03%	5.30%	YGGDSDHPSDGETSVQPMMTK	K	I	92.90%	3.47	0.0537	0	1	1	0	2	2,398.86	267	287	TRUE	
SNU216_PC2_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	1	1	1	0.01%	9.17%	GNAEGSSDEEGKLVIDEPAKEK	K	N	93.70%	2.62	0.189	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC2_03	Isoform 1 of Mediator of DNA damage checkpoir	IPI00552897,IPI00641106	226,660.80	100.00%	1	1	1	0.01%	1.05%	AIPGDQHPESPVHTEPMGIQGR	R	G	95.00%	3.54	0.284	0	0	1	0	2	2,433.10	784	805	TRUE	
SNU216_PC2_03	Isoform 1 of LAP2 protein	IPI00438286,IPI00438287,IP	152,234.00	100.00%	1	1	1	0.01%	1.56%	HIVNHDDVFEESEELSSDEEMK	K	M	95.00%	4.62	0.506	0	0	1	0	2	2,778.05	587	608	TRUE	
SNU216_PC2_03	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ALSSDSILSPAPDAR	R	A	95.00%	3.09	0.397	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216_PC2_03	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ASTPDWVSEGPQPGLR	R	R	95.00%	2.69	0.366	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216_PC2_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.18%	KLSLGQYDNDAGGQLPFSK	R	C	95.00%	3.52	0.248	0	0	1	0	2	2,117.99	774	792	TRUE	
SNU216_PC2_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.18%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	4.77	0.381	0	0	1	0	2	3,031.34	330	356	TRUE	
SNU216_PC2_03	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	2	3	5	0.03%	3.81%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	3.53	0.333	0	1	3	0	2	2,929.08	432	455	TRUE	
SNU216_PC2_03	Structure-specific recognition protein 1	IPI00005154	81,077.60	100.00%	2	3	5	0.03%	3.81%	GLKEGMNPSYDEYADSDEDQHDAYLER	R	M	95.00%	3.98	0.355	0	0	0	1	2	3,227.28	429	455	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	AQGSDEDKLQNSDDDEK	R	M	95.00%	3.72	0.509	0	2	0	0	2	2,053.73	168	184	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	IYSSDSDEGSEEDKAQR	R	L	95.00%	3.06	0.323	0	1	0	0	2	1,995.78	605	621	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	KLTSDEEGEPSGK	K	R	95.00%	2.69	0.53	0	2	0	0	2	1,536.59	627	639	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	KLTSDEEGEPSGKR	K	K	95.00%	2.42	0.431	0	1	0	0	2	1,692.69	627	640	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	KYVISDEEEEDDD	K	-	95.00%	2.43	0.384	0	1	0	0	2	1,665.61	654	666	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	LTSDEEGEPSGKR	K	K	95.00%	2.05	0.363	0	1	0	0	2	1,484.63	628	640	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	MQNTDDEERPQLSDDER	K	Q	95.00%	2.65	0.382	0	1	0	0	2	2,237.81	185	201	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	NAIASDSEADSDTEVPK	K	D	95.00%	3.42	0.376	0	2	0	0	2	1,828.75	290	306	TRUE	
SNU216_PC2_03	Hypothetical protein LEO1	IPI00103090	75,405.30	100.00%	9	9	12	0.08%	16.80%	SDQSDDEKIQNSDDEER	K	A	95.00%	2.16	0.255	0	1	0	0	2	2,169.75	151	167	TRUE	
SNU216_PC2_03	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	2	0.01%	3.86%	ESENSGDSGYPSEK	R	R	95.00%	3.07	0.452	0	1	0	0	2	1,565.56	434	447	TRUE	
SNU216_PC2_03	Elongation factor 2 kinase	IPI00011689	82,173.90	100.00%	2	2	2	0.01%	3.86%	KYESDEDSLGSSGR	R	V	95.00%	2.68	0.255	0	1	0	0	2	1,689.60	467	480	TRUE	
SNU216_PC2_03	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	2	3	3	0.02%	4.12%	ELPSLSPAPDTGLSPSKR	R	T	95.00%	3.69	0.368	0	0	1	0	2	1,931.95	253	270	TRUE	
SNU216_PC2_03	Isoform 2 of Phosphatidylinositol 4-kinase beta	IPI00165547	89,809.00	100.00%	2	3	3	0.02%	4.12%	TASNPKVENEDEPVR	R	L	95.00%	3.04	0.34	0	1	1	0	2	1,764.78	292	306	TRUE	
SNU216_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	7	9	0.06%	10.00%	EAPASPLRPLYPQISPLK	K	I	95.00%	3.3	0.287	0	0	1	0	2	2,266.09	45	63	TRUE	
SNU216_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	7	9	0.06%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	2.74	0.371	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	7	9	0.06%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	95.00%	4.06	0.157	0	0	1	1	2	3,383.68	36	63	TRUE	
SNU216_PC2_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	100.00%	4	7	9	0.06%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	2.98	0.389	0	2	2	0	2	1,585.72	253	267	TRUE	
SNU216_PC2_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	7	8	0.05%	8.13%	GEDSAEETEAKPAVVAPAPVVEAVSTPSAAI	K	Q	95.00%	6.38	0.497	0	0	1	1	2	4,118.93	479	519	TRUE	
SNU216_PC2_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	7	8	0.05%	8.13%	PMEEDGEEKSPSK	R	K	95.00%	2.82	0.504	0	1	0	0	2	1,542.60	373	385	TRUE	
SNU216_PC2_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	7	8	0.05%	8.13%	RPMEEDGEEKSPSK	K	K	95.00%	4.36	0.382	0	1	2	1	2	1,698.70	372	385	TRUE	
SNU216_PC2_03	Isoform 4 of Interleukin enhancer-binding factor :	IPI00418313	95,808.40	100.00%	4	7	8	0.05%	8.13%	VLQDMGLPTGAEGRDSSK	K	G	95.00%	3.76	0.393	0	1	0	0	2	1,940.88	461	478	TRUE	
SNU216_PC2_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	5	5	0.03%	4.87%	GDLSDVEEEEEEEMDVDEATGAVK	R	K	95.00%	3.83	0.481	0	1	1	0	2	2,705.05	829	852	TRUE	
SNU216_PC2_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	5	5	0.03%	4.87%	GDLSDVEEEEEEEMDVDEATGAVKK	R	H	95.00%	5.35	0.412	0	0	1	0	2	2,833.15	829	853	TRUE	
SNU216_PC2_03	Paired amphipathic helix protein Sin3a	IPI00170596	145,176.40	100.00%	3	5	5	0.03%	4.87%	SPPVQPHTPVTISLGTAPSLQNNQPVEFNH	R	I	95.00%	4.97	0.361	0	0	1	1	2	4,089.02	277	313	TRUE	
SNU216_PC2_03	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	3	4	0.03%	5.69%	RPWRPEEAVEDPDEEDEDNTSEAENGFSLE	K	L	95.00%	3.86	0.263	0	0	1	1	2	4,068.73	14	47	TRUE	
SNU216_PC2_03	CCAAT/enhancer-binding protein zeta	IPI00306723	120,992.20	100.00%	2	3	4	0.03%	5.69%	SQLDDHPESDDEENFIDANDDEDMEK	R	F	95.00%	4.83	0.537	0	0	2	0	2	3,148.14	621	646	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	4.63	0.35	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	GSPTSAYPER	K	K	95.00%	1.9	0.39	0	1	0	0	2	1,144.47	869	878	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	HGSDPAFAPGPR	K	G	95.00%	2.65	0.413	0	1	1	0	2	1,288.55	521	532	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	KGSPTPGFSTR	R	R	95.00%	2.42	0.279	0	0	1	0	2	1,214.56	879	889	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	LDYVPSSASR	R	E	95.00%	2.13	0.415	0	0	1	0	2	1,174.51	508	517	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	RGSLTLTISGESPK	R	A	93.50%	2.56	0.153	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	RGSPTTGFIEQK	R	G	95.00%	2.43	0.271	0	1	1	0	2	1,400.66	890	901	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	RGSPVPPVPERR	R	S	95.00%	3.67	0.305	0	0	1	0	2	1,426.73	912	923	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	RLSLGQGDSTEAATEER	R	G	95.00%	3.32	0.301	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	RMEDEGGFPVPQENGQPESPRR	R	L	93.70%	3.22	0.173	0	0	1	0	2	2,592.13	980	1001	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	RSQSSSQGDNPLAPGYLPPHYK	R	E	95.00%	3.31	0.265	0	0	2	0	2	2,639.07	4	25	TRUE	
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	SSPVPPVPER	R	R	91.50%	2.08	0.212	0	1	0	0	2	1,144.54	924	933	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	13	15	16	0.11%	17.60%	VPAAFPTKVPVPGPGSGGNGPER	R	E	95.00%	4.02	0.492	0	0	1	0	2	2,268.12	632	654	TRUE	
SNU216_PC2_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	1	1	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.6	0.393	0	0	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC2_03	Isoform 1 of Protein FAM62A	IPI00022143	122,859.10	100.00%	1	1	1	0.01%	1.45%	HLSPYATLTVGDSSHK	K	T	95.00%	3.49	0.382	0	0	1	0	2	1,792.83	818	833	TRUE	
SNU216_PC2_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	3	3	0.02%	4.20%	AGAEDDEEKGEGTPR	K	E	95.00%	3.43	0.569	0	1	0	0	2	1,640.64	150	164	TRUE	
SNU216_PC2_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	3	3	0.02%	4.20%	GPSQEEEDNHSDEEDR	R	A	95.00%	4.18	0.575	0	1	0	0	2	1,952.68	57	72	TRUE	
SNU216_PC2_03	Conserved nuclear protein NHN1	IPI00328929	106,379.80	100.00%	3	3	3	0.02%	4.20%	LGVSVSPSR	K	A	83.20%	1.76	0.209	0	1	0	0	2	981.4765	529	537	TRUE	
SNU216_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	8	9	0.06%	10.30%	ARHDSPDLAPNVTYSLPR	R	T	95.00%	3.64	0.232	0	0	1	0	2	2,088.99	267	284	TRUE	
SNU216_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	8	9	0.06%	10.30%	ARHDSPDPSPPR	R	R	95.00%	2.7	0.213	0	0	1	0	2	1,491.58	193	204	TRUE	
SNU216_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	8	9	0.06%	10.30%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.76	0.374	0	1	1	0	2	1,861.85	269	284	TRUE	
SNU216_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	8	9	0.06%	10.30%	HDSPDPSPPR	R	R	95.00%	2.07	0.292	0	2	0	0	2	1,264.44	195	204	TRUE	
SNU216_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	8	9	0.06%	10.30%	HDTPDPSPLR	R	G	95.00%	2.64	0.389	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	8	9	0.06%	10.30%	VRHDSPDPSPPRR	R	A	93.90%	2.49	0.206	0	0	0	1	2	1,675.71	218	230	TRUE	
SNU216_PC2_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	7	8	9	0.06%	10.30%	YEYDPDISPPR	K	K	95.00%	2.22	0.247	0	1	0	0	2	1,431.58	318	328	TRUE	
SNU216_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	5	5	0.03%	10.80%	KVDEGAGDSAAVASGGAQTLALAGSPAPSI	R	A	95.00%	7.61	0.568	0	0	1	1	2	3,054.45	460	492	TRUE	
SNU216_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	5	5	0.03%	10.80%	KVEEEGSPGDPDHEASTQGR	R	T	95.00%	4.53	0.538	0	1	1	0	2	2,204.91	309	328	TRUE	
SNU216_PC2_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	3	5	5	0.03%	10.80%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.53	0.415	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216_PC2_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.87%	NYAESDHSEDEDNDNNSATAEESTKK	K	N	95.00%	2.97	0.197	0	0	1	0	2	3,060.09	49	74	TRUE	
SNU216_PC2_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.87%	TSPINEDIR	R	S	89.50%	1.83	0.215	0	1	0	0	2	1,124.50	599	607	TRUE	
SNU216_PC2_03	Isoform 1 of Arginine-glutamic acid dipeptide rep	IPI00185027	172,425.10	100.00%	3	3	3	0.02%	2.87%	VASDTEEADR	K	T	95.00%	1.96	0.376	0	1	0	0	2	1,172.45	654	663	TRUE	
SNU216_PC2_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	4	5	0.03%	1.15%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	4.99	0.501	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC2_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	4	5	0.03%	1.15%	ARSDEGQLSPATR	R	G	95.00%	3.07	0.357	0	0	1	0	2	1,467.66	712	724	TRUE	IPI00398002,IPI00398779
SNU216_PC2_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	3	4	5	0.03%	1.15%	SSSVGSSSSYPISPAVSR	R	T	95.00%	4.28	0.0516	0	2	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC2_03	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	2	2	2	0.01%	5.92%	EVEEDLDELYDSLEMYNPSDSGPEMEETESI	R	L	95.00%	6.62	0.0354	0	0	1	0	2	4,425.89	361	398	TRUE	
SNU216_PC2_03	Isoform 1 of Phosphofurin acidic cluster sorting p	IPI00376229,IPI00456262	109,343.80	100.00%	2	2	2	0.01%	5.92%	TDLQGSASPSKVEGVHTPR	K	Q	95.00%	3.35	0.353	0	0	1	0	2	2,045.97	488	506	TRUE	
SNU216_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.91%	GSVPLSSSPPATHFPDETEITNPVPK	K	K	95.00%	2.89	0.249	0	0	1	0	2	2,784.31	1467	1492	TRUE	
SNU216_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.91%	IKNENTEGSPQEDGVELEGLK	K	Q	95.00%	3.67	0.426	0	0	1	0	2	2,366.08	1320	1340	TRUE	
SNU216_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.91%	SVVSDLEADDVK	K	G	95.00%	2.16	0.288	0	1	0	0	2	1,356.59	1455	1466	TRUE	
SNU216_PC2_03	Isoform 3 of DNA topoisomerase 2-alpha	IPI00218753,IPI00218754,IP	182,687.40	100.00%	4	4	4	0.03%	4.91%	VPDEEENEESDNEKETEK	K	S	95.00%	4.19	0.464	0	1	0	0	2	2,229.86	1178	1195	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	V	95.00%	2.96	0.459	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216_PC2_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	4.78	0.447	0	0	1	0	2	3,054.38	478	503	TRUE	
SNU216_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	5.07%	DPSASPGDAGEQAIR	R	Q	95.00%	2.26	0.265	0	1	0	0	2	1,550.65	286	300	TRUE	
SNU216_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	5.07%	GQGSSPVAMQK	K	A	95.00%	2.02	0.329	0	1	0	0	2	1,169.50	342	352	TRUE	
SNU216_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	5.07%	GWLRDPSASPGDAGEQAIR	K	Q	95.00%	2.77	0.207	0	1	0	0	2	2,062.93	282	300	TRUE	
SNU216_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	5.07%	MTGLVDEAIDTKSLLDASEEAIKK	K	D	95.00%	3.67	0.246	0	0	1	1	2	2,657.30	709	732	TRUE	
SNU216_PC2_03	Isoform 1 of Vinculin	IPI00291175,IPI00307162	123,801.30	100.00%	5	6	6	0.04%	5.07%	SLLDASEEAIKK	K	D	95.00%	1.8	0.283	0	1	0	0	2	1,383.68	721	732	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM6	IPI00031517	92,890.60	100.00%	1	1	1	0.01%	1.83%	EIESEIDSEEELINK	K	K	95.00%	3.94	0.237	0	1	0	0	2	1,856.81	755	769	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.72%	DSALAEAPEGLSPAPPAR	R	S	95.00%	2.91	0.371	0	1	0	0	2	1,828.85	845	862	TRUE	
SNU216_PC2_03	Ubiquitin carboxyl-terminal hydrolase 42	IPI00375124	145,548.80	99.80%	2	2	2	0.01%	2.72%	HAPEHHPGHGDRLSPGER	R	R	95.00%	2.69	0.255	0	0	0	1	2	2,065.91	994	1011	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	3	4	5	0.03%	2.96%	QNPEQSADEDAEK	K	N	95.00%	3.4	0.425	0	1	0	0	2	1,540.58	161	173	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	3	4	5	0.03%	2.96%	QPLLLSEDEEDTK	K	R	95.00%	2.51	0.281	0	1	0	0	2	1,596.70	34	46	TRUE	
SNU216_PC2_03	Eukaryotic translation initiation factor 3 subunit 8	IPI00016910	105,347.20	100.00%	3	4	5	0.03%	2.96%	QPLLLSEDEEDTKR	K	V	95.00%	3.78	0.21	0	2	1	0	2	1,752.81	34	47	TRUE	
SNU216_PC2_03	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	3.55%	APVHFVEPLSPTGVAGHR	K	K	95.00%	3.54	0.302	0	0	1	0	2	1,950.96	793	810	TRUE	
SNU216_PC2_03	Calmodulin regulated spectrin-associated protein	IPI00395444	146,547.80	99.80%	2	2	2	0.01%	3.55%	EQSPSQHGKDPASLLASELVQLHMQLEEK	R	R	95.00%	6.22	0.434	0	0	0	1	2	3,309.58	582	610	TRUE	
SNU216_PC2_03	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	ATLDEEDLVDSLSEGDAYPNGLQVNFHSPR	R	S	95.00%	4.25	0.323	0	0	1	0	2	3,368.50	21	50	TRUE	
SNU216_PC2_03	Isoform B of Endothelin-converting enzyme 1	IPI00002478,IPI00216760,IP	87,023.80	100.00%	2	3	3	0.02%	4.03%	RATLDEEDLVDSLSEGDAYPNGLQVNFHSP	K	S	95.00%	7.4	0.533	0	0	1	1	2	3,524.60	20	50	TRUE	
SNU216_PC2_03	DEAH (Asp-Glu-Ala-His) box polypeptide 36	IPI00027415,IPI00217760	114,779.80	100.00%	1	1	1	0.01%	0.69%	FQDGYYS	R	-	89.90%	1.47	0.17	1	0	0	0	2	959.3183	1002	1008	TRUE	
SNU216_PC2_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	3	3	3	0.02%	3.71%	RNSVERPAEPVAGAATPSLVEQQK	R	M	95.00%	6.15	0.58	0	0	1	0	2	2,614.30	1454	1477	TRUE	
SNU216_PC2_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	3	3	3	0.02%	3.71%	SKHDSSAPDPAPDSADEVMPEAVPEVASEF	K	T	95.00%	6.22	0.536	0	0	0	1	2	4,403.92	885	926	TRUE	
SNU216_PC2_03	Isoform 4 of Death-inducer obliterator 1	IPI00619921	243,873.80	100.00%	3	3	3	0.02%	3.71%	SSSPAGETEGDREPQAR	R	P	95.00%	2.44	0.239	0	0	1	0	2	1,853.77	1712	1728	TRUE	
SNU216_PC2_03	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	2	2	2	0.01%	2.80%	GHSAQIAKPIRPGQHPAASPTHPSAIR	R	G	95.00%	3.88	0.438	0	0	0	1	2	2,862.46	915	941	TRUE	
SNU216_PC2_03	Kinesin heavy chain	IPI00012837,IPI00472558	109,686.30	100.00%	2	2	2	0.01%	2.80%	PIRPGQHPAASPTHPSAIR	K	G	95.00%	3.22	0.441	0	0	0	1	2	2,070.04	923	941	TRUE	
SNU216_PC2_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	4	4	4	0.03%	3.66%	GDDDEESDEEAVK	K	K	95.00%	3.04	0.306	0	1	0	0	2	1,517.52	613	625	TRUE	
SNU216_PC2_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	4	4	4	0.03%	3.66%	GDDDEESDEEAVKK	K	T	95.00%	2.85	0.157	0	1	0	0	2	1,645.61	613	626	TRUE	
SNU216_PC2_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	4	4	4	0.03%	3.66%	IKWDEQTSNTKGDDDEESDEEAVK	R	K	95.00%	3.57	0.397	0	0	1	0	2	2,848.17	602	625	TRUE	
SNU216_PC2_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00005861,IPI00377152	77,530.70	100.00%	4	4	4	0.03%	3.66%	WDEQTSNTKGDDDEESDEEAVKK	K	T	93.00%	3.18	0.15	0	0	1	0	2	2,735.08	604	626	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	AIPVSPSAVEEDEDEDGHTVVATAR	K	G	95.00%	4.2	0.534	0	0	1	0	2	2,674.19	1613	1637	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	ATLLNVPDLSDSIHSANASER	R	D	95.00%	4.2	0.357	0	0	0	3	2	2,290.07	266	286	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	DDISEIQSLASDHSGR	R	S	93.50%	3.03	0.175	0	0	1	0	2	1,809.77	287	302	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	HTSDYEDTDTEGGAYTDQELDETLNDEVGT	R	S	95.00%	7.72	0.156	0	0	1	0	2	4,251.75	839	876	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	ISKPGAVSTPVKHADDHTPK	R	T	95.00%	3.36	0.333	0	0	0	1	2	2,165.08	346	365	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	KVQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	4.08	0.355	0	0	1	2	2	3,651.55	111	140	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	SVASSQPAKPTK	R	V	95.00%	1.95	0.277	0	2	0	0	2	1,440.56	175	186	TRUE	
SNU216_PC2_03	Isoform Long of Tight junction protein ZO-1	IPI00216219	195,460.40	100.00%	8	9	14	0.09%	9.27%	VQIPVSRPDPEPVSDNEEDSYDEEIHDPR	K	S	95.00%	5.09	0.425	0	0	2	0	2	3,443.49	112	140	TRUE	
SNU216_PC2_03	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	99.80%	2	2	2	0.01%	6.57%	ARSMDSSDLSDGAVTLQEYLELKK	R	A	95.00%	5.85	0.517	0	0	1	0	2	2,736.28	408	431	TRUE	
SNU216_PC2_03	Isoform 1 of ARF GTPase-activating protein GIT1	IPI00384861	84,342.40	99.80%	2	2	2	0.01%	6.57%	SQSDLDDQHDYDSVASDEDTDQEPLR	R	S	95.00%	4.79	0.152	0	0	1	0	2	3,060.19	373	398	TRUE	
SNU216_PC2_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	3.68%	IGSDPLAYEPK	R	E	95.00%	1.93	0.302	0	1	0	0	2	1,269.58	205	215	TRUE	
SNU216_PC2_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	3.68%	INNYLTVPAHKLDSPTMSR	K	A	95.00%	4.62	0.444	0	0	1	0	2	2,237.08	184	202	TRUE	
SNU216_PC2_03	Sodium/hydrogen exchanger 1	IPI00020060,IPI00641616,IP	36,165.30	100.00%	3	3	3	0.02%	3.68%	LDSPTMSR	K	A	95.00%	1.6	0.298	0	1	0	0	2	986.4014	195	202	TRUE	
SNU216_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	100.00%	3	3	3	0.02%	6.02%	GSLAPQDSDSEVSQNR	K	S	95.00%	2.66	0.419	0	1	0	0	2	1,769.73	418	433	TRUE	
SNU216_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	100.00%	3	3	3	0.02%	6.02%	HSSADNLANEMTYITETEDVFYTYK	R	G	95.00%	5.95	0.591	0	0	1	0	2	3,022.27	393	417	TRUE	
SNU216_PC2_03	Tyrosine-protein phosphatase non-receptor type	IPI00289649,IPI00480052,IP	95,259.60	100.00%	3	3	3	0.02%	6.02%	SLPSRSPPITPNWR	K	S	87.80%	2.71	0.172	0	0	1	0	2	1,687.83	367	380	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	EAASSSSGTQPAPPAPASPWDSKK	K	H	95.00%	4.25	0.315	0	0	1	0	2	2,434.09	531	554	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	EVLYDSEGLSGEER	R	G	95.00%	2.09	0.234	0	1	0	0	2	1,742.66	729	742	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	FDIYDPFHPTDEAYSPPPAPEQK	R	Y	95.00%	4.88	0.353	0	0	1	0	2	2,741.18	225	247	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	GAEETSWSGEER	K	A	89.30%	2.18	0.191	0	1	0	0	2	1,417.53	958	969	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	GPSPAPASSPKR	R	E	91.20%	2.26	0.186	0	1	0	0	2	1,311.55	717	728	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	QRSPSPAPAPAPAAAAGPPTR	R	K	95.00%	3.16	0.336	0	1	1	0	2	2,127.97	496	516	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	QRSPSPAPAPAPAAAAGPPTRK	R	K	93.00%	3.16	0.162	0	0	1	0	2	2,256.07	496	517	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	RRSASPPPATSSSSSSR	R	R	95.00%	3.53	0.366	0	0	1	0	2	1,877.79	610	626	TRUE	
SNU216_PC2_03	Serine arginine-rich pre-mRNA splicing factor SR-	IPI00303343	139,272.90	100.00%	9	10	10	0.07%	9.45%	SASPPPATSSSSSSR	R	R	95.00%	2.4	0.462	0	1	0	0	2	1,565.59	612	626	TRUE	
SNU216_PC2_03	PREDICTED: similar to ELG protein	IPI00740502	30,748.00	99.10%	2	2	2	0.01%	15.30%	AEAPAGPALGLPSPEAESGVDR	K	G	95.00%	4.42	0.507	0	1	0	0	2	2,171.00	13	34	TRUE	
SNU216_PC2_03	PREDICTED: similar to ELG protein	IPI00740502	30,748.00	99.10%	2	2	2	0.01%	15.30%	AEAPAGPALGLPSPEAESGVDRGEPEPMEV	K	S	81.10%	4.7	0.0577	0	0	0	1	2	4,446.12	13	54	TRUE	
SNU216_PC2_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	99.80%	1	2	3	0.02%	3.95%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.1	0.418	0	0	2	1	2	2,450.06	90	113	TRUE	
SNU216_PC2_03	Methionyl-tRNA synthetase	IPI00008240	101,117.50	100.00%	2	2	2	0.01%	3.11%	TSPKPAVVETVTTAK	K	P	95.00%	2.11	0.273	0	1	0	0	2	1,608.82	824	838	TRUE	
SNU216_PC2_03	Methionyl-tRNA synthetase	IPI00008240	101,117.50	100.00%	2	2	2	0.01%	3.11%	TSPKPAVVETVTTAKPQQIQALMDEVTK	K	Q	95.00%	4.63	0.507	0	0	0	1	2	3,090.58	824	851	TRUE	
SNU216_PC2_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	3.92%	RDSLTGSSDLYK	R	R	95.00%	3.57	0.419	0	1	0	0	2	1,421.63	708	719	TRUE	
SNU216_PC2_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	3.92%	RPGQSFHVNSEVNSVLSPR	R	S	95.00%	4.02	0.378	0	0	1	0	2	2,190.05	193	211	TRUE	
SNU216_PC2_03	Pumilio homolog 1	IPI00032355,IPI00551014,IP	126,756.10	100.00%	3	3	3	0.02%	3.92%	SMDELNHDFQALALEGR	R	A	95.00%	2.76	0.255	0	0	1	0	2	2,025.87	124	140	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	6	7	8	0.05%	11.20%	AIPELDAYEAEGLALDDEDVEELTASQR	R	E	95.00%	3.09	0.196	0	0	1	0	2	3,142.40	83	110	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	6	7	8	0.05%	11.20%	DLPPFEDESEGLLGTEGPLEEEEDGEELIGDG	R	D	95.00%	4.61	0.384	0	0	1	0	2	3,912.64	45	79	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	6	7	8	0.05%	11.20%	GLLYDSDEEDEERPAR	R	K	95.00%	3.69	0.504	0	1	2	0	2	1,973.81	134	149	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	6	7	8	0.05%	11.20%	GLLYDSDEEDEERPARK	R	R	94.50%	2.69	0.15	0	1	0	0	2	2,101.91	134	150	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	6	7	8	0.05%	11.20%	GNDPLTSSPGR	R	S	86.40%	1.77	0.231	0	1	0	0	2	1,260.47	20	30	TRUE	
SNU216_PC2_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	6	7	8	0.05%	11.20%	TDALTSSPGR	R	D	95.00%	2.21	0.315	0	1	0	0	2	1,084.47	35	44	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	DNIQPTTE	K	-	90.70%	1.76	0.215	1	0	0	0	2	997.3876	948	955	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	ERSPALKSPLQSVVVR	R	R	95.00%	3.48	0.472	0	1	2	1	2	1,925.96	246	261	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	FSGEEGEIEDDESGTENR	K	E	95.00%	3.29	0.455	0	1	0	0	2	2,079.77	927	944	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	FSGEEGEIEDDESGTENREEKDNIQPTTE	K	-	95.00%	5.17	0.45	0	0	1	0	2	3,364.35	927	955	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	GSFSDTGLGDGK	K	M	95.00%	1.94	0.271	0	1	0	0	2	1,220.48	376	387	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	HGLAHDEMKSPR	K	E	87.80%	2.37	0.165	0	0	1	0	2	1,457.64	689	700	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	HGLAHDEMKSPREPGYK	K	A	95.00%	3.34	0.295	0	0	0	2	2	2,031.91	689	705	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	IDISPSTFR	R	K	95.00%	2.02	0.221	0	1	0	0	2	1,115.51	679	687	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	KHGLAHDEMKSPR	R	E	95.00%	2.74	0.476	0	1	0	0	2	1,585.73	688	700	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	MDSFDEDLAR	R	P	94.90%	2.12	0.198	0	1	0	0	2	1,278.47	573	582	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	MDSFDEDLARPSGLLAQER	R	K	90.90%	2.94	0.15	0	0	1	0	2	2,229.98	573	591	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	SPALKSPLQSVVVR	R	R	95.00%	3.29	0.468	0	1	1	0	2	1,560.85	248	261	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	SPSELFAQHIVTIVHHVK	R	E	86.00%	2.39	0.178	0	0	1	0	2	2,122.08	622	639	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	SPVGKSPPSTGSTYGSSQK	K	E	95.00%	3.93	0.379	0	1	1	0	2	1,931.87	315	333	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	TDSEKPFRGSQSPK	K	R	95.00%	2.49	0.212	0	1	0	0	2	1,723.71	397	410	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	WAHDKFSGEEGEIEDDESGTENR	K	E	95.00%	5.58	0.537	0	0	3	1	2	2,717.06	922	944	TRUE	
SNU216_PC2_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	17	23	27	0.18%	16.60%	WAHDKFSGEEGEIEDDESGTENREEK	K	D	95.00%	5.14	0.395	0	0	1	1	2	3,103.24	922	947	TRUE	
SNU216_PC2_03	Isoform 1 of Nuclear pore complex protein Nup1	IPI00026625,IPI00376609	149,019.90	99.80%	1	1	1	0.01%	0.72%	AAPQSPSVPK	K	K	95.00%	1.84	0.325	0	1	0	0	2	1,061.50	929	938	TRUE	
SNU216_PC2_03	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	99.90%	2	2	2	0.01%	3.03%	KYIEIDSDEEPRGELLSLR	K	D	95.00%	3.17	0.183	0	0	1	0	2	2,342.13	519	537	TRUE	
SNU216_PC2_03	CDNA FLJ10498 fis, clone NT2RP2000328	IPI00018240	72,788.60	99.90%	2	2	2	0.01%	3.03%	YIEIDSDEEPRGELLSLR	K	D	87.10%	2.56	0.196	0	0	1	0	2	2,214.03	520	537	TRUE	
SNU216_PC2_03	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	99.10%	2	2	2	0.01%	3.05%	GGSPQMDDIK	R	V	81.00%	2.03	0.206	0	1	0	0	2	1,127.44	542	551	TRUE	
SNU216_PC2_03	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	99.10%	2	2	2	0.01%	3.05%	GGSPQMDDIKVFQNEVLGTLQR	R	G	95.00%	3.26	0.23	0	0	1	0	2	2,512.19	542	563	TRUE	
SNU216_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	10.30%	ANFDEENAYFEDEEEDSSNVDLPYIPAENSP	R	Q	95.00%	4.48	0.474	0	0	1	0	2	3,886.58	67	99	TRUE	
SNU216_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	10.30%	QQFHSKPVDSDSDDDPLEAFMAEVEDQAA	R	D	95.00%	5.6	0.543	0	0	1	1	2	3,457.45	100	129	TRUE	
SNU216_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	10.30%	RANFDEENAYFEDEEEDSSNVDLPYIPAENS	K	Q	95.00%	6.11	0.552	0	0	1	0	2	4,042.68	66	99	TRUE	
SNU216_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	10.30%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	K	95.00%	4.04	0.465	0	0	1	0	2	3,605.52	163	194	TRUE	
SNU216_PC2_03	DEAD box polypeptide 42 protein	IPI00409671	102,976.90	100.00%	5	7	8	0.05%	10.30%	YMAENPTAGVVQEEEEDNLEYDSDGNPIAI	R	I	95.00%	4.78	0.399	0	0	2	1	2	3,749.61	163	195	TRUE	
SNU216_PC2_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	5	5	0.03%	2.75%	APVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	4.11	0.464	0	1	1	0	2	2,298.08	9	31	TRUE	
SNU216_PC2_03	26S proteasome non-ATPase regulatory subunit 2	IPI00012268	100,202.20	100.00%	2	5	5	0.03%	2.75%	DKAPVQPQQSPAAAPGGTDEKPSGK	K	E	95.00%	4.57	0.544	0	1	1	1	2	2,541.20	7	31	TRUE	
SNU216_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	10	10	0.07%	14.70%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	5.41	0.151	0	0	1	1	2	2,410.09	593	615	TRUE	
SNU216_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	10	10	0.07%	14.70%	AVAEEDNGSIGEETDSSPGR	K	K	95.00%	3.53	0.473	0	1	0	0	2	2,099.84	652	671	TRUE	
SNU216_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	10	10	0.07%	14.70%	DLTHSDSESSLHMSDR	R	Q	95.00%	3.24	0.13	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	10	10	0.07%	14.70%	KAVAEEDNGSIGEETDSSPGR	K	K	95.00%	3.68	0.197	0	1	0	0	2	2,227.94	651	671	TRUE	
SNU216_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	10	10	0.07%	14.70%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	5.18	0.541	0	0	1	1	2	2,350.24	559	580	TRUE	
SNU216_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	10	10	0.07%	14.70%	LPDSPALAK	K	K	87.40%	1.8	0.243	0	1	0	0	2	991.4862	572	580	TRUE	
SNU216_PC2_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	7	10	10	0.07%	14.70%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	4.57	0.0371	0	1	0	0	2	2,001.82	616	634	TRUE	
SNU216_PC2_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	3	3	3	0.02%	2.02%	ALTDDSDENEEEEDAFTDQK	K	I	95.00%	4.65	0.536	0	1	0	0	2	2,251.84	1207	1225	TRUE	
SNU216_PC2_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	3	3	3	0.02%	2.02%	LFDDEASVDEPR	R	R	95.00%	2.2	0.236	0	1	0	0	2	1,472.59	639	650	TRUE	
SNU216_PC2_03	Isoform 2 of InaD-like protein	IPI00170791	173,811.70	100.00%	3	3	3	0.02%	2.02%	RLFDDEASVDEPR	R	R	81.80%	2.56	0.14	0	0	1	0	2	1,628.70	638	650	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.27	0.427	0	4	3	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	FKAEAPLPSPK	K	L	95.00%	2.63	0.239	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	GHYEVTGSDDETGK	K	L	95.00%	2.42	0.471	0	1	1	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5.13	0.534	0	0	1	1	2	2,602.17	2905	2929	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	GKGGVTGSPEASISGSK	K	G	95.00%	3.57	0.166	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	ISAPNVDFNLEGPK	K	V	95.00%	2.91	0.563	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	ISMQDVDLSLGSPK	K	L	95.00%	3.08	0.347	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	ISMSEVDLNVAAPK	R	V	95.00%	2.6	0.285	0	1	0	0	2	1,553.73	322	335	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	SKGHYEVTGSDDETGK	K	L	95.00%	3.43	0.5	0	1	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	5	0.322	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	95.00%	5.29	0.0695	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216_PC2_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	17	22	0.14%	5.71%	VSVGAPDLSLEASEGSIKLPK	K	M	95.00%	3.47	0.269	0	0	1	0	2	2,177.11	2456	2476	TRUE	
SNU216_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	4	4	0.03%	20.00%	AGLGSPERPPK	R	T	95.00%	2.44	0.323	0	1	0	0	2	1,188.58	54	64	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	4	4	0.03%	20.00%	LGGLRPESPESLTSVSR	R	T	95.00%	2.82	0.283	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	4	4	0.03%	20.00%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	3.58	0.27	0	0	1	0	2	2,463.07	72	94	TRUE	
SNU216_PC2_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	4	4	4	0.03%	20.00%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	2.84	0.221	0	0	1	0	2	2,681.14	95	115	TRUE	
SNU216_PC2_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	5	0.03%	2.81%	LEDSEVRSVASNQSEMEFSSLQDMPK	K	E	95.00%	5.01	0.132	0	0	1	0	2	3,103.27	670	695	TRUE	
SNU216_PC2_03	Isoform 1 of Protein KIAA1967	IPI00182757	103,031.30	100.00%	2	3	5	0.03%	2.81%	SVASNQSEMEFSSLQDMPK	R	E	95.00%	4.12	0.499	0	3	1	0	2	2,194.90	677	695	TRUE	
SNU216_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	AFVEDSEDEDGAGEGGSSLLQK	R	R	95.00%	3.91	0.46	0	1	1	0	2	2,319.95	172	193	TRUE	
SNU216_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHK	R	K	95.00%	6.55	0.451	0	0	1	0	2	2,991.38	621	648	TRUE	
SNU216_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	QLPALDGSLMGPESPPAQEEEAPVSPHKKP.	R	R	95.00%	4.78	0.398	0	0	0	1	2	3,720.74	621	654	TRUE	
SNU216_PC2_03	hypothetical protein LOC65095 isoform 1	IPI00186139,IPI00255778	83,253.20	100.00%	4	6	6	0.04%	10.00%	YVDEENSDGETSNHR	K	L	95.00%	3.64	0.491	0	1	1	0	2	1,831.68	136	150	TRUE	
SNU216_PC2_03	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	3	3	0.02%	2.01%	EGDELEDNGKNFYESDDDQKEK	K	T	95.00%	3.25	0.452	0	1	1	0	2	2,684.05	262	283	TRUE	
SNU216_PC2_03	Isoform 1 of AP-3 complex subunit beta-1	IPI00021129	121,354.00	100.00%	2	3	3	0.02%	2.01%	NFYESDDDQKEK	K	T	95.00%	2.38	0.228	0	1	0	0	2	1,597.61	272	283	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	APESDTGDEDQDQER	R	D	95.00%	3.74	0.632	0	3	0	0	2	1,771.63	575	589	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	DEDGESGGQRSEAEEGEVR	R	T	95.00%	2.44	0.382	0	0	1	0	2	2,195.78	456	474	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	DKSDSDTEGLLFSR	R	D	95.00%	3.02	0.383	0	2	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	GAPSQDDESGGGIEDSPDR	K	G	95.00%	4.37	0.397	0	1	0	0	2	1,911.72	664	681	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	PASVSENHDAGPDGDKRDEDGESGGQR	R	S	95.00%	2.8	0.234	0	0	1	1	2	2,862.16	439	465	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	RLPSSPASPSPK	R	G	95.00%	2.82	0.447	0	1	0	0	2	1,303.64	537	548	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	SDSDTEGLLFSR	K	D	95.00%	2.75	0.444	0	1	0	0	2	1,406.58	648	659	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	SEAEEGEVRTPTK	R	I	95.00%	2.76	0.241	0	1	0	0	2	1,512.66	466	478	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	SLDGAEFSR	R	P	95.00%	1.97	0.486	0	1	0	0	2	1,061.43	430	438	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	SLDGAEFSRPASVSENHDAGPDGDKR	R	D	95.00%	3.71	0.376	0	0	1	2	2	2,794.21	430	455	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.92	0.27	0	0	2	0	2	2,540.10	639	659	TRUE	
SNU216_PC2_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	100.00%	12	14	19	0.12%	16.70%	SLSPIIGKDVLTSTYGATAETLSTSTTTHVTK	R	T	90.10%	6.26	0.0142	0	0	1	0	2	3,360.68	782	813	TRUE	
SNU216_PC3_03	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.30%	2	2	2	0.01%	8.96%	IAAPELHKGDSDSEEDEPTK	K	K	86.20%	2.56	0.131	0	1	0	0	2	2,327.93	147	166	TRUE	
SNU216_PC3_03	Proline-rich protein PRCC	IPI00294618,IPI00399306,IP	48,961.90	99.30%	2	2	2	0.01%	8.96%	QITQEEDDSDEEVAPENFFSLPEK	K	A	95.00%	3.92	0.424	0	0	1	0	2	2,876.20	259	282	TRUE	
SNU216_PC3_03	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	2	2	3	0.02%	2.91%	ILQEKLDQPVSAPPSPR	R	D	95.00%	2.74	0.318	0	1	0	0	2	2,034.97	230	246	TRUE	
SNU216_PC3_03	Coiled-coil domain-containing protein 6	IPI00000634	65,918.80	100.00%	2	2	3	0.02%	2.91%	LDQPVSAPPSPR	K	D	95.00%	2.95	0.421	0	2	0	0	2	1,343.64	235	246	TRUE	
SNU216_PC3_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	1	1	2	0.01%	2.43%	RRSPPADAIPK	K	S	95.00%	3.1	0.387	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216_PC3_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.01%	1.62%	NRSAEEGELAESK	R	S	95.00%	3.57	0.4	0	1	0	0	2	1,499.64	1664	1676	TRUE	
SNU216_PC3_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	99.80%	2	2	2	0.01%	1.62%	VPSSDEEVVEEPQSR	R	R	95.00%	3.74	0.386	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	9.92%	DNSPPPAFKPEPPK	R	A	95.00%	2.17	0.329	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	9.92%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	2.7	0.272	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	9.92%	KVQVAALQASPPLDQDDR	R	A	95.00%	4.17	0.494	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	9.92%	RHQYSDYDYHSSSEKLK	R	E	95.00%	3.02	0.204	0	0	1	0	2	2,302.92	420	436	TRUE	
SNU216_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	9.92%	SILKPSTPIPPQEGEEVGESSEEQDNAPK	R	S	95.00%	3.26	0.299	0	0	1	0	2	3,172.46	1048	1076	TRUE	
SNU216_PC3_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	6	6	6	0.04%	9.92%	SSEPVQHEESIRKPSPEPR	R	A	95.00%	2.74	0.194	0	0	1	0	2	2,269.06	952	970	TRUE	
SNU216_PC3_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.00%	1	1	1	0.01%	3.44%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.71	0.366	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	4	4	0.03%	4.64%	ASPIKMDLAPSK	R	D	89.40%	2.28	0.18	0	1	0	0	2	1,337.65	385	396	TRUE	
SNU216_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	4	4	0.03%	4.64%	DMESPTKLDVTLAK	K	D	95.00%	3.17	0.201	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	4	4	0.03%	4.64%	DMSPLSETEMALGK	K	D	95.00%	2.92	0.502	0	1	0	0	2	1,588.66	533	546	TRUE	
SNU216_PC3_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	4	4	4	0.03%	4.64%	DMSPLSETEMALGKDVTPPPETEVVLIK	K	N	95.00%	3.99	0.455	0	0	1	0	2	3,106.50	533	560	TRUE	
SNU216_PC3_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	2	2	0.01%	1.17%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	4.53	0.403	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216_PC3_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	99.80%	2	2	2	0.01%	1.17%	TPVQVSQQQNSPQK	K	H	95.00%	3	0.283	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC3_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	1	1	1	0.01%	3.56%	HTGPNSPDTANDGFVR	K	L	95.00%	2.69	0.231	0	1	0	0	2	1,764.73	99	114	TRUE	
SNU216_PC3_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	100.00%	3	4	5	0.03%	5.69%	NSASATTPLSGNSSR	R	R	95.00%	2.44	0.365	0	2	0	0	2	1,529.66	311	325	TRUE	
SNU216_PC3_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	100.00%	3	4	5	0.03%	5.69%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	4.64	0.535	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216_PC3_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	100.00%	3	4	5	0.03%	5.69%	RGSGDTSSLIDPDTSLSELRDIYDLK	R	D	95.00%	4.06	0.326	0	0	1	0	2	2,933.38	326	351	TRUE	
SNU216_PC3_03	U4/U6.U5 tri-snRNP-associated protein 1	IPI00021417	90,257.10	100.00%	1	1	1	0.01%	2.75%	RVSEVEEEKEPVPQPLPSDDTR	R	V	95.00%	4.32	0.337	0	0	1	0	2	2,616.22	446	467	TRUE	
SNU216_PC3_03	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	99.80%	2	2	2	0.01%	6.69%	SAASREDLVGPEVGASPQSGRK	R	S	95.00%	3.39	0.282	0	0	1	0	2	2,278.08	258	279	TRUE	
SNU216_PC3_03	Ral GEF with PH domain and SH3 binding motif 2	IPI00334126,IPI00644990	61,378.60	99.80%	2	2	2	0.01%	6.69%	SVAAEGALLPQTPPSPR	K	N	95.00%	3.39	0.333	0	1	0	0	2	1,850.85	280	296	TRUE	
SNU216_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	4	6	0.04%	8.86%	DYDDMSPR	R	R	95.00%	1.49	0.445	0	3	0	0	2	1,094.35	279	286	TRUE	
SNU216_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	4	6	0.04%	8.86%	GSYGDLGGPIITTQVTIPK	K	D	95.00%	3.11	0.218	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	3	4	6	0.04%	8.86%	IILDLISESPIKGR	K	A	95.00%	2.89	0.295	0	1	1	0	2	1,633.89	208	221	TRUE	
SNU216_PC3_03	Isoform 1 of Ran-binding protein 3	IPI00026337,IPI00456728,IP	60,209.90	99.80%	1	2	2	0.01%	2.82%	VLSPPKLNEVSSDANR	R	E	95.00%	3.15	0.424	0	1	1	0	2	1,805.88	331	346	TRUE	
SNU216_PC3_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	9.65%	FHSGWEPPVDVLQEAPWEVEGLASAPIEEV	K	Q	95.00%	6.78	0.554	0	0	1	0	2	3,923.85	419	453	TRUE	
SNU216_PC3_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	9.65%	HSPTSEPTPPGDALPPVSSPHTHR	K	G	95.00%	4.23	0.282	0	0	0	1	2	2,581.18	462	485	TRUE	
SNU216_PC3_03	Isoform 1 of Epidermal growth factor receptor kir	IPI00414315	80,621.10	100.00%	3	3	3	0.02%	9.65%	YWGPASPTHK	K	L	92.80%	1.61	0.311	0	1	0	0	2	1,223.52	565	574	TRUE	
SNU216_PC3_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	1	1	1	0.01%	3.45%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.41	0.468	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216_PC3_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	99.80%	1	2	2	0.01%	4.41%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.15	0.513	0	0	1	1	2	2,191.89	328	345	TRUE	
SNU216_PC3_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	99.80%	2	2	2	0.01%	6.04%	KESAPQVLLPEEEKIIVEETK	R	S	95.00%	3.75	0.241	0	0	1	0	2	2,489.28	617	637	TRUE	
SNU216_PC3_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00449906,IPI00641543	79,834.00	99.80%	2	2	2	0.01%	6.04%	SGTLKSPPKGFDTTAINK	K	S	95.00%	4.63	0.397	0	0	1	0	2	1,941.97	74	91	TRUE	
SNU216_PC3_03	WDR79 protein	IPI00306087	59,310.10	99.80%	2	3	3	0.02%	6.20%	GDPPRLSPDPVAGSAVSQELR	R	E	95.00%	3.71	0.26	0	0	1	0	2	2,228.07	48	68	TRUE	
SNU216_PC3_03	WDR79 protein	IPI00306087	59,310.10	99.80%	2	3	3	0.02%	6.20%	NADSELMPPPPERGDPPRLSPDPVAGSAVS	K	E	95.00%	4.78	0.347	0	0	1	1	2	3,661.73	35	68	TRUE	
SNU216_PC3_03	D13S824E locus	IPI00383694	22,005.50	99.80%	2	2	2	0.01%	13.80%	ELLHSVHPESPNLK	K	T	95.00%	3.48	0.263	0	0	1	0	2	1,679.82	120	133	TRUE	
SNU216_PC3_03	D13S824E locus	IPI00383694	22,005.50	99.80%	2	2	2	0.01%	13.80%	EQTLLPVNDALR	K	T	95.00%	2.69	0.269	0	0	1	0	2	1,448.71	140	151	TRUE	
SNU216_PC3_03	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	99.80%	2	2	2	0.01%	3.28%	AVVVSPKEENK	R	A	95.00%	2.38	0.26	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216_PC3_03	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	99.80%	2	2	2	0.01%	3.28%	AVVVSPKEENKAAEPPPPK	R	I	95.00%	4.3	0.454	0	0	1	0	2	2,067.05	336	354	TRUE	
SNU216_PC3_03	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.90%	2	2	2	0.01%	2.53%	EQSEVSVSPR	K	A	95.00%	2.35	0.282	0	1	0	0	2	1,197.51	25	34	TRUE	
SNU216_PC3_03	hypothetical protein LOC65117 isoform a	IPI00419791	50,560.80	99.90%	2	2	2	0.01%	2.53%	KEQSEVSVSPR	K	A	95.00%	2.26	0.352	0	1	0	0	2	1,325.61	24	34	TRUE	
SNU216_PC3_03	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	1	1	2	0.01%	2.49%	SLDMDSIIAEVK	R	A	95.00%	2.63	0.242	0	2	0	0	2	1,400.64	252	263	TRUE	
SNU216_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	8	16	0.11%	29.00%	AEDGATPSPSNETPK	K	K	95.00%	3.78	0.453	0	8	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	8	16	0.11%	29.00%	AEDGATPSPSNETPKKK	K	K	95.00%	3.58	0.35	0	0	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	8	16	0.11%	29.00%	EAPAEGEAAEPGSPTAAEGEAASAASSTSSP	K	A	89.90%	5.81	0.0392	0	0	1	0	2	2,995.27	105	136	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	8	16	0.11%	29.00%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.04	0.467	0	2	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	8	16	0.11%	29.00%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	3.67	0.46	0	0	1	1	2	2,899.33	11	39	TRUE	
SNU216_PC3_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	8	16	0.11%	29.00%	GEPAAAAAPEAGASPVEK	K	E	95.00%	3.78	0.428	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC3_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	4	0.03%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.7	0.393	0	0	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC3_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	4	0.03%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	5.12	0.434	0	0	2	1	2	3,296.33	133	159	TRUE	
SNU216_PC3_03	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	100.00%	2	3	3	0.02%	3.05%	GGSPQMDDIK	R	V	95.00%	2.04	0.285	1	1	0	0	2	1,127.44	542	551	TRUE	
SNU216_PC3_03	Translation initiation factor eIF-2B subunit epsilon	IPI00011898	80,365.90	100.00%	2	3	3	0.02%	3.05%	GGSPQMDDIKVFQNEVLGTLQR	R	G	95.00%	3.35	0.411	0	0	1	0	2	2,512.19	542	563	TRUE	
SNU216_PC3_03	far upstream element-binding protein	IPI00375441	67,560.60	100.00%	1	1	1	0.01%	3.73%	QQAAYYAQTSPQGMPQHPPAPQGQ	R	-	95.00%	4.02	0.442	0	1	0	0	2	2,661.16	621	644	TRUE	
SNU216_PC3_03	40S ribosomal protein S3	IPI00011253	26,688.60	99.80%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	2.56	0.271	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC3_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	93.70%	2.76	0.168	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC3_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	4.04	0.209	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC3_03	Isoform 1 of Phosphatidate cytidylyltransferase 2	IPI00032150	51,419.70	99.80%	1	1	1	0.01%	4.27%	VAHEPVAPPEDKESESEAK	R	V	95.00%	3.96	0.285	0	0	1	0	2	2,128.94	8	26	TRUE	
SNU216_PC3_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	2.97	0.277	0	0	1	1	0	2,436.24	96	119	TRUE	
SNU216_PC3_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	3	3	0.02%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.3	0.492	0	0	1	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC3_03	Isoform 1 of Vang-like protein 1	IPI00031195,IPI00386349	59,977.00	100.00%	1	1	1	0.01%	3.44%	RRDSSHNELYYEEAEHER	R	R	95.00%	3.54	0.14	0	0	0	1	2	2,400.00	335	352	TRUE	
SNU216_PC3_03	DNA polymerase alpha subunit B	IPI00290272	65,948.80	99.80%	1	1	1	0.01%	3.34%	SPHQLLSPSSFSPSATPSQK	R	Y	95.00%	3.79	0.333	0	1	0	0	2	2,163.01	141	160	TRUE	
SNU216_PC3_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	5	6	0.04%	5.05%	DHSPTPSVFNSDEER	R	Y	95.00%	2.91	0.492	0	2	1	0	2	1,796.71	490	504	TRUE	
SNU216_PC3_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	5	6	0.04%	5.05%	DHSPTPSVFNSDEERYR	R	Y	95.00%	3.34	0.138	0	1	0	0	2	2,195.84	490	506	TRUE	
SNU216_PC3_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	5	6	0.04%	5.05%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.48	0.212	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC3_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	4	5	6	0.04%	5.05%	RHESEEGDSHR	R	R	95.00%	2.14	0.25	0	0	1	0	2	1,418.54	551	561	TRUE	
SNU216_PC3_03	Isoform 1 of Cleavage and polyadenylation specif	IPI00550821,IPI00719106	51,096.50	100.00%	1	1	1	0.01%	4.67%	DSSDSADGRATPSENLVPSSAR	R	V	81.90%	3.98	0.0887	0	0	1	0	2	2,298.98	184	205	TRUE	
SNU216_PC3_03	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	2	2	0.01%	3.84%	TEDGDWEWSDDEMDEK	K	S	95.00%	3.33	0.518	0	1	0	0	2	2,066.68	379	394	TRUE	
SNU216_PC3_03	STE20/SPS1-related proline-alanine-rich protein ki	IPI00004363,IPI00749208	59,642.90	99.80%	2	2	2	0.01%	3.84%	TEDGDWEWSDDEMDEKSEEGK	K	A	95.00%	4.38	0.576	0	1	0	0	2	2,596.92	379	399	TRUE	
SNU216_PC3_03	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	5.48%	RHSSDINHLVTQGR	R	E	95.00%	2.54	0.27	0	0	1	0	2	1,699.80	481	494	TRUE	
SNU216_PC3_03	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	5.48%	TISDGTISASK	R	Q	95.00%	2.15	0.477	0	1	0	0	2	1,159.52	293	303	TRUE	
SNU216_PC3_03	formin binding protein 1-like isoform 2	IPI00015580,IPI00028718,IP	69,435.30	100.00%	3	3	3	0.02%	5.48%	TISDGTISASKQESGK	R	M	95.00%	2.51	0.33	0	1	0	0	2	1,688.77	293	308	TRUE	
SNU216_PC3_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	4	4	0.03%	2.97%	EEQTDTSDGESVTHHIR	R	R	95.00%	3.76	0.401	0	0	1	0	2	2,020.82	45	61	TRUE	
SNU216_PC3_03	guanine nucleotide binding protein-like 1	IPI00396387	68,660.80	100.00%	2	4	4	0.03%	2.97%	REEQTDTSDGESVTHHIR	R	R	95.00%	4.56	0.419	0	1	1	1	2	2,176.93	44	61	TRUE	
SNU216_PC3_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	98.80%	1	1	2	0.01%	0.67%	TAQVPSPPR	R	G	95.00%	1.94	0.367	0	2	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC3_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	99.80%	1	2	2	0.01%	11.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.71	0.564	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216_PC3_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.6	0.482	0	2	0	0	2	1,617.62	79	92	TRUE	
SNU216_PC3_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	2	3	0.02%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	3.06	0.47	0	1	0	0	2	1,745.72	79	93	TRUE	
SNU216_PC3_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	99.80%	1	1	1	0.01%	3.54%	QERLSPEVAPPAHR	K	R	95.00%	3.03	0.213	0	0	1	0	2	1,666.81	31	44	TRUE	
SNU216_PC3_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	99.80%	2	2	2	0.01%	2.15%	DRTPPLLYR	R	D	95.00%	2.63	0.408	0	0	1	0	2	1,210.60	566	574	TRUE	
SNU216_PC3_03	Isoform 1 of Putative RNA-binding protein 15	IPI00102752,IPI00220716,IP	104,758.90	99.80%	2	2	2	0.01%	2.15%	SLSPGGAALGYR	R	D	95.00%	2.47	0.226	0	1	0	0	2	1,228.57	292	303	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	2	3	3	0.02%	2.34%	ESEDKPEIEDVGSDEEEEK	K	K	95.00%	4.19	0.333	0	1	0	0	2	2,272.89	373	391	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-alpha 2	IPI00382470	98,117.00	100.00%	2	3	3	0.02%	2.34%	ESEDKPEIEDVGSDEEEEKK	K	D	95.00%	4.52	0.447	0	1	1	0	2	2,400.98	373	392	TRUE	
SNU216_PC3_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	4	0.03%	10.70%	GSSPGPRPVEGTPASR	R	T	95.00%	2.49	0.333	0	0	1	0	2	1,631.75	408	423	TRUE	
SNU216_PC3_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	4	0.03%	10.70%	QAPAPTVIRDPPSITPAVKSPLPGPSEEK	R	T	95.00%	4.05	0.34	0	0	0	1	2	3,059.58	439	467	TRUE	
SNU216_PC3_03	Chromatin assembly factor 1 subunit B	IPI00011857	61,492.80	100.00%	3	3	4	0.03%	10.70%	TQDPSSPGTTPPQAR	R	Q	95.00%	2.61	0.215	0	2	0	0	2	1,619.71	424	438	TRUE	
SNU216_PC3_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	2	3	3	0.02%	19.10%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.1	0.581	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC3_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	2	3	3	0.02%	19.10%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	7.34	0.564	0	0	1	1	2	4,277.68	238	275	TRUE	
SNU216_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	9	10	0.07%	12.50%	AGAAAGDSDEESRADDKGVMDYYLK	R	Y	95.00%	3.26	0.212	0	0	1	1	2	2,714.13	330	354	TRUE	
SNU216_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	9	10	0.07%	12.50%	GGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	6.4	0.553	0	1	1	0	2	2,410.07	505	530	TRUE	
SNU216_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	9	10	0.07%	12.50%	GGAPDPSPGATATPGAPAQPSSPDARR	R	N	95.00%	5.21	0.518	0	0	1	0	2	2,566.17	505	531	TRUE	
SNU216_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	9	10	0.07%	12.50%	HFKDEDEDEDVASPDGLGR	K	L	95.00%	3.67	0.326	0	0	2	0	2	2,210.89	537	555	TRUE	
SNU216_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	9	10	0.07%	12.50%	VRGGAPDPSPGATATPGAPAQPSSPDAR	R	R	95.00%	5.29	0.37	0	1	1	0	2	2,665.24	503	530	TRUE	
SNU216_PC3_03	Zinc finger and BTB domain-containing protein 7,	IPI00026317	61,439.50	100.00%	6	9	10	0.07%	12.50%	VRGGAPDPSPGATATPGAPAQPSSPDARR	R	N	95.00%	6.7	0.573	0	0	1	0	2	2,821.34	503	531	TRUE	
SNU216_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	4	5	5	0.03%	9.76%	EIAIVHSDAEKEQEEEEQKQEMEVK	K	M	95.00%	4.14	0.234	0	0	0	1	2	3,065.37	341	365	TRUE	
SNU216_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	4	5	5	0.03%	9.76%	ESEKQQDSQPEEVMDVLEMVENVK	K	H	95.00%	3.59	0.378	0	0	1	0	2	2,900.26	374	397	TRUE	
SNU216_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	4	5	5	0.03%	9.76%	SLSPGKENVSALDMEK	K	E	95.00%	3.59	0.45	0	1	1	0	2	1,784.81	441	456	TRUE	
SNU216_PC3_03	Isoform 1 of Pinin	IPI00418458	81,613.20	100.00%	4	5	5	0.03%	9.76%	SLSPGKENVSALDMEKESEEK	K	E	95.00%	4.16	0.269	0	0	1	0	2	2,387.07	441	461	TRUE	
SNU216_PC3_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	99.80%	2	3	4	0.03%	6.03%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	5.45	0.346	0	1	2	0	2	2,373.03	234	253	TRUE	
SNU216_PC3_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	99.80%	2	3	4	0.03%	6.03%	DNSPEPNDPEEPQEVSSTPSDKK	R	G	95.00%	4.08	0.403	0	0	1	0	2	2,606.08	254	276	TRUE	
SNU216_PC3_03	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.80%	2	4	5	0.03%	10.50%	AVSETPAVPPVSEDEDDDDDDATPPPVIAPI	K	S	95.00%	5.7	0.498	0	0	2	1	2	3,888.73	163	198	TRUE	
SNU216_PC3_03	Isoform 2 of Serine/threonine-protein kinase PAK	IPI00289746,IPI00656138	61,633.10	99.80%	2	4	5	0.03%	10.50%	DVATSPISPTENNTTPPDALTR	R	N	95.00%	4.28	0.329	0	1	1	0	2	2,377.09	216	237	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.80%	2	2	2	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	3.03	0.274	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ20291	IPI00015618	49,649.00	99.80%	2	2	2	0.01%	2.59%	MANSSPVLSK	K	V	95.00%	2.16	0.272	0	1	0	0	2	1,113.50	214	223	TRUE	
SNU216_PC3_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	APSEEELHGDQTDFGQGSQSPQKQEEQR	K	Q	95.00%	4.51	0.541	0	0	1	1	2	3,222.36	68	95	TRUE	
SNU216_PC3_03	Isoform 1 of Protein phosphatase Slingshot homc	IPI00218486	72,994.50	99.80%	2	3	3	0.02%	7.28%	SPPGSGASTPVGPWDQAVQR	R	R	95.00%	4.24	0.512	0	1	0	0	2	2,073.94	9	28	TRUE	
SNU216_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.06%	13.70%	ASSLSESSPPK	R	A	94.20%	1.68	0.309	0	1	0	0	2	1,169.51	367	377	TRUE	
SNU216_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.06%	13.70%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	5.53	0.458	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.06%	13.70%	ETPHSPGVEDAPIAK	R	V	95.00%	3.4	0.461	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.06%	13.70%	LRSPPEALVQGR	R	Y	95.00%	3.03	0.373	0	1	1	0	2	1,402.72	130	141	TRUE	
SNU216_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.06%	13.70%	SEVQQPVHPKPLSPDSR	K	A	95.00%	4.02	0.501	0	1	0	0	2	1,980.95	350	366	TRUE	
SNU216_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.06%	13.70%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	7.13	0.533	0	0	1	0	2	3,432.41	666	695	TRUE	
SNU216_PC3_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	7	8	8	0.06%	13.70%	SRPFTVAASFQSTSVKSPK	R	T	90.30%	5.36	0.0356	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	6	6	0.04%	10.20%	KSPTMEQAVQTASAHLPAPAAVGR	R	R	95.00%	4.38	0.4	0	0	1	0	2	2,498.22	191	214	TRUE	
SNU216_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	6	6	0.04%	10.20%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	3.72	0.433	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	6	6	0.04%	10.20%	SPVSTRPLPSASQK	R	A	95.00%	2.57	0.228	0	0	1	0	2	1,534.76	216	229	TRUE	
SNU216_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	6	6	0.04%	10.20%	SSPQLDPLR	R	K	95.00%	1.86	0.307	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	6	6	0.04%	10.20%	SSPQLDPLRK	R	S	95.00%	2.38	0.234	0	0	1	0	2	1,220.60	182	191	TRUE	
SNU216_PC3_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	6	6	6	0.04%	10.20%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.69	0.28	0	0	0	1	2	3,571.71	182	214	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	2	3	0.02%	9.16%	RPEGPGAQAPSSPR	R	V	95.00%	2.49	0.204	0	0	1	0	2	1,486.68	504	517	TRUE	
SNU216_PC3_03	Alpha-taxilin	IPI00470779	61,891.20	100.00%	2	2	3	0.02%	9.16%	SSPGQPEAGPEGAQERPSQAAPAVEAEGPC	K	K	95.00%	4.65	0.465	0	0	2	0	2	3,564.60	18	53	TRUE	
SNU216_PC3_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.00%	2	2	2	0.01%	4.86%	FHDTSSPLMVTPPSAEAHWAVR	K	V	95.00%	4.88	0.418	0	0	1	0	2	2,516.14	103	124	TRUE	
SNU216_PC3_03	Epidermal growth factor receptor substrate 15-lik	IPI00163849,IPI00646339	83,250.60	99.00%	2	2	2	0.01%	4.86%	STPSHGSVSSLNSTGSLSPK	R	H	80.70%	2.97	0.16	0	0	1	0	2	2,009.92	238	257	TRUE	
SNU216_PC3_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	2	2	2	0.01%	2.01%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	4.11	0.466	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC3_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	100.00%	2	2	2	0.01%	2.01%	SPSFGDPQLSPEARPR	R	C	95.00%	2.49	0.368	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216_PC3_03	Plastin-2	IPI00010471	70,160.90	100.00%	1	1	1	0.01%	1.92%	GSVSDEEMMELR	R	E	95.00%	2.5	0.483	0	1	0	0	2	1,462.56	3	14	TRUE	
SNU216_PC3_03	Serine₩/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	4	5	0.03%	4.60%	KETESEAEDNLDDLEK	K	H	95.00%	3.98	0.439	0	2	0	0	2	1,944.80	879	894	TRUE	
SNU216_PC3_03	Serine₩/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	4	5	0.03%	4.60%	TASPPPPPK	R	R	95.00%	1.9	0.387	0	1	0	0	2	971.46	623	631	TRUE	
SNU216_PC3_03	Serine₩/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	3	4	5	0.03%	4.60%	VPKPEPIPEPKEPSPEK	K	N	95.00%	5.08	0.474	0	1	1	0	2	1,977.99	247	263	TRUE	
SNU216_PC3_03	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	2	4	4	0.03%	3.81%	EGMNPSYDEYADSDEDQHDAYLER	K	M	95.00%	4.49	0.156	0	1	1	0	2	2,929.08	432	455	TRUE	
SNU216_PC3_03	Structure-specific recognition protein 1	IPI00005154	81,077.60	99.80%	2	4	4	0.03%	3.81%	GLKEGMNPSYDEYADSDEDQHDAYLER	R	M	95.00%	4.6	0.373	0	0	1	1	2	3,227.28	429	455	TRUE	
SNU216_PC3_03	DnaJ homology subfamily A member 5 isoform 2	IPI00142716,IPI00413366,IP	67,141.70	99.40%	1	1	1	0.01%	6.21%	QQLEEEEEENFSRPQIDENPLDDNSEEEMED	K	Q	95.00%	6.09	0.415	0	0	1	0	2	4,013.64	347	379	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	5	6	0.04%	10.20%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	4.76	0.433	0	1	2	0	2	2,586.99	308	328	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	5	6	0.04%	10.20%	HEEQQRELEEEEENSDEDELDSHTMVK	R	T	95.00%	5.34	0.403	0	0	0	1	2	3,394.35	302	328	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	5	6	0.04%	10.20%	NATSPQVQRPSFMDYFDKQDFK	R	N	95.00%	3.57	0.394	0	0	1	0	2	2,729.21	382	403	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	4	5	6	0.04%	10.20%	RHEEQQRELEEEEENSDEDELDSHTMVK	K	T	95.00%	5.95	0.409	0	0	0	1	2	3,550.46	301	328	TRUE	
SNU216_PC3_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.80%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.5	0.406	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC3_03	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	100.00%	2	2	2	0.01%	3.79%	ALSASHTDLAH	R	-	86.50%	2.33	0.135	0	1	0	0	2	1,202.52	570	580	TRUE	
SNU216_PC3_03	Isoform P of Kinesin light chain 1	IPI00337465,IPI00472303,IP	65,769.30	100.00%	2	2	2	0.01%	3.79%	VDSPTVTTTLK	K	N	87.20%	1.91	0.246	0	1	0	0	2	1,241.60	454	464	TRUE	
SNU216_PC3_03	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	3	0.02%	3.55%	SGSSSPDSEITELK	R	F	95.00%	2.08	0.287	0	1	0	0	2	1,516.64	571	584	TRUE	
SNU216_PC3_03	CTP synthase	IPI00290142	66,690.70	100.00%	2	2	3	0.02%	3.55%	SGSSSPDSEITELKFPSINHD	R	-	95.00%	4.25	0.0688	0	2	0	0	2	2,327.01	571	591	TRUE	
SNU216_PC3_03	LOC162427 protein	IPI00254338	51,397.40	99.80%	2	2	3	0.02%	12.00%	GQTPLTEGSEDLDGHSDPEESFAR	R	D	95.00%	2.95	0.282	0	0	2	0	2	2,734.06	305	328	TRUE	
SNU216_PC3_03	LOC162427 protein	IPI00254338	51,397.40	99.80%	2	2	3	0.02%	12.00%	SPSSDLDTDAEGDDFELLDQSELSQLDPASS	R	S	95.00%	4.93	0.493	0	0	1	0	2	3,519.48	433	464	TRUE	
SNU216_PC3_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYK	R	R	95.00%	3.17	0.348	0	1	0	0	2	1,407.64	384	395	TRUE	
SNU216_PC3_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	GRSFAGNLNTYKR	R	L	95.00%	2.7	0.305	0	0	1	0	2	1,563.74	384	396	TRUE	
SNU216_PC3_03	6-phosphofructokinase type C	IPI00009790	85,597.40	100.00%	3	3	3	0.02%	1.66%	SFAGNLNTYKR	R	L	80.40%	2.02	0.167	0	1	0	0	2	1,350.62	386	396	TRUE	
SNU216_PC3_03	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	5	0.03%	12.20%	ATSRGSNSGMDSNIDLTIVEDEEEESVALEQ	K	V	95.00%	6.82	0.0309	0	0	1	0	2	3,732.64	359	392	TRUE	
SNU216_PC3_03	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	5	0.03%	12.20%	ISSGKSSPFKVSPLTFGR	K	K	93.40%	3.41	0.0677	0	1	0	0	2	2,054.97	282	299	TRUE	
SNU216_PC3_03	Serum deprivation-response protein	IPI00005809	47,172.90	100.00%	3	4	5	0.03%	12.20%	SSPFKVSPLTFGR	K	K	95.00%	2.36	0.287	0	2	1	0	2	1,582.71	287	299	TRUE	
SNU216_PC3_03	Importin alpha-3 subunit	IPI00299033	57,811.10	99.80%	1	1	1	0.01%	3.45%	NVPQEESLEDSDVDADFK	R	A	95.00%	3.97	0.424	0	1	0	0	2	2,116.86	50	67	TRUE	
SNU216_PC3_03	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	2	2	2	0.01%	12.20%	ASPATQPPPLLPPSATGPDATVGGPAPTPLL	R	M	95.00%	3.55	0.38	0	0	1	0	2	3,806.96	57	96	TRUE	
SNU216_PC3_03	Isoform 1 of KH domain-containing, RNA-binding	IPI00008575,IPI00082310	44,028.00	100.00%	2	2	2	0.01%	12.20%	SGSMDPSGAHPSVR	R	Q	95.00%	2.93	0.343	0	1	0	0	2	1,464.59	18	31	TRUE	
SNU216_PC3_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	5.83%	AAVVTSPPPTTAPHK	R	E	95.00%	1.99	0.298	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC3_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	5.83%	SPGSPVGEGTGSPPKWQIGEQEFEALMR	R	M	95.00%	4.67	0.448	0	0	1	0	2	3,051.39	355	382	TRUE	
SNU216_PC3_03	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLR	K	R	95.00%	3.31	0.451	0	1	0	0	2	2,108.94	239	257	TRUE	
SNU216_PC3_03	Isoform 2 of Protein KIAA0179	IPI00032374,IPI00290952	84,413.70	100.00%	2	2	2	0.01%	2.70%	VGDGDLSAEEIPENEVSLRR	K	A	95.00%	3.08	0.249	0	0	1	0	2	2,265.04	239	258	TRUE	
SNU216_PC3_03	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	99.00%	2	3	5	0.03%	6.29%	KTSSDDESEEDEDDLLQR	R	T	79.80%	3.32	0.024	0	1	0	0	2	2,270.82	203	220	TRUE	
SNU216_PC3_03	U3 small nucleolar RNA-associated protein 18 ho	IPI00000733	62,004.40	99.00%	2	3	5	0.03%	6.29%	VQEHEDSGDSEVENEAK	R	G	95.00%	4.09	0.571	0	3	1	0	2	1,981.77	115	131	TRUE	
SNU216_PC3_03	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	HVDSLSQRSPK	R	A	95.00%	2.77	0.382	0	1	0	0	2	1,333.63	59	69	TRUE	
SNU216_PC3_03	septin 9	IPI00748715	63,634.10	100.00%	2	2	2	0.01%	4.75%	SFEVEEVETPNSTPPR	R	R	95.00%	3.61	0.55	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	15	24	0.17%	7.24%	EELMSSDLEETAGSTSIPK	K	R	95.00%	4.49	0.343	0	2	2	0	2	2,103.90	515	533	TRUE	
SNU216_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	15	24	0.17%	7.24%	EEPVSSGPEEAVGK	K	S	95.00%	3.1	0.521	0	2	0	0	2	1,574.60	565	578	TRUE	
SNU216_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	15	24	0.17%	7.24%	FSKEEPVSSGPEEAVGK	K	S	95.00%	3.27	0.444	0	2	2	0	2	1,936.80	562	578	TRUE	
SNU216_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	15	24	0.17%	7.24%	KFSKEEPVSSGPEEAVGK	R	S	95.00%	4.49	0.532	0	3	1	0	2	1,984.93	561	578	TRUE	
SNU216_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	15	24	0.17%	7.24%	KSFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.24	0	0	2	0	0	2	2,681.23	510	533	TRUE	
SNU216_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	15	24	0.17%	7.24%	SFSKEELMSSDLEETAGSTSIPK	K	R	95.00%	5.25	0	0	6	0	0	2	2,553.13	511	533	TRUE	
SNU216_PC3_03	nucleolar protein 5A	IPI00719818	66,052.00	100.00%	11	15	24	0.17%	7.24%	SFSKEELMSSDLEETAGSTSIPKR	K	K	92.60%	4.12	0	0	2	0	0	2	2,709.23	511	534	TRUE	
SNU216_PC3_03	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	5	0.03%	10.40%	GLGPPSPPAPPR	R	G	95.00%	2.2	0.383	0	1	0	0	2	1,222.60	90	101	TRUE	
SNU216_PC3_03	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	5	0.03%	10.40%	GPAGEAGASPPVR	R	R	95.00%	2.35	0.266	0	1	0	0	2	1,245.56	102	114	TRUE	
SNU216_PC3_03	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	5	0.03%	10.40%	GPAGEAGASPPVRR	R	V	95.00%	2.96	0.349	0	2	0	0	2	1,401.66	102	115	TRUE	
SNU216_PC3_03	Isoform 1 of Beta-2-syntrophin	IPI00009505	57,951.00	100.00%	4	4	5	0.03%	10.40%	KPSLVSDLPWEGAAPQSPSFSGSEDSGSPK	K	H	90.70%	7.19	0.0129	0	0	1	0	2	3,124.42	206	235	TRUE	
SNU216_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	8	9	0.06%	5.03%	KLGAGEGGEASVSPEK	K	T	95.00%	3.04	0.251	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	8	9	0.06%	5.03%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.95	0.179	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	8	9	0.06%	5.03%	LGAGEGGEASVSPEK	K	T	88.00%	2.38	0.162	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	8	9	0.06%	5.03%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3	0.338	0	1	0	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	8	9	0.06%	5.03%	SLGNILQAKPTSSPAKGPPQK	K	A	95.00%	4.12	0.421	0	0	1	0	2	2,199.15	494	514	TRUE	
SNU216_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	8	9	0.06%	5.03%	TSQVGAASAPAKESPR	K	K	95.00%	2.69	0.418	0	2	0	0	2	1,636.77	291	306	TRUE	
SNU216_PC3_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	7	8	9	0.06%	5.03%	TVANLLSGKSPR	K	K	95.00%	3.19	0.293	0	1	1	0	2	1,322.68	147	158	TRUE	
SNU216_PC3_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	3	4	6	0.04%	4.01%	PFSAPKPQTSPSPK	K	R	95.00%	3.94	0.376	0	1	0	0	2	1,548.75	298	311	TRUE	
SNU216_PC3_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	3	4	6	0.04%	4.01%	PFSAPKPQTSPSPKR	K	A	95.00%	3.51	0.314	0	0	1	0	2	1,704.85	298	312	TRUE	
SNU216_PC3_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	3	4	6	0.04%	4.01%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	4.06	0.437	0	3	1	0	2	1,917.95	294	311	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	AGLGSPERPPKTSPGSPR	R	L	95.00%	2.68	0.197	0	0	1	0	2	2,030.85	54	71	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	ALVEFESNPEETREPGSPPSVQR	R	A	95.00%	2.77	0.355	0	1	0	0	2	2,635.20	31	53	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	LGGLRPESPESLTSVSR	R	T	95.00%	3.57	0.45	0	1	1	0	2	1,864.92	11	27	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	LQQGAGLESPQGQPEPGAASPQR	R	Q	95.00%	6.18	0.61	0	1	1	0	2	2,383.10	72	94	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	LQQGAGLESPQGQPEPGAASPQRQQDLHI	R	Q	95.00%	5.24	0.5	0	0	1	1	2	3,714.76	72	105	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	QPEYSPESPR	R	C	95.00%	1.81	0.282	0	1	0	0	2	1,349.48	106	115	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	QQDLHLESPQRQPEYSPESPR	R	C	95.00%	3.38	0.297	0	1	2	0	2	2,601.17	95	115	TRUE	
SNU216_PC3_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	100.00%	8	13	14	0.10%	28.60%	RALVEFESNPEETREPGSPPSVQR	R	A	95.00%	3.39	0.344	0	0	1	1	2	2,791.30	30	53	TRUE	
SNU216_PC3_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	2	4	6	0.04%	6.24%	GHTDTEGRPPSPPPTSTPEK	R	C	95.00%	2.92	0.218	0	1	1	0	2	2,167.97	353	372	TRUE	
SNU216_PC3_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	100.00%	2	4	6	0.04%	6.24%	VKEEPPSPPQSPR	R	V	95.00%	2.89	0.338	0	2	2	0	2	1,527.72	297	309	TRUE	
SNU216_PC3_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	6	8	0.06%	4.93%	ASPAPGSGHPEGPGAHLDMNSLDR	R	A	95.00%	4.04	0.48	0	1	2	0	2	2,450.06	90	113	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	6	8	0.06%	4.93%	KTPEGRASPAPGSGHPEGPGAHLDMNSLD	R	A	95.00%	5.01	0.408	0	0	1	2	2	3,118.42	84	113	TRUE	
SNU216_PC3_03	Mitochondrial precursor proteins import receptor	IPI00015602	67,457.20	100.00%	3	6	8	0.06%	4.93%	TPEGRASPAPGSGHPEGPGAHLDMNSLDR	K	A	95.00%	4.15	0.395	0	0	1	1	2	2,990.32	85	113	TRUE	
SNU216_PC3_03	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	3	3	0.02%	7.49%	APSDSSLGTPSDGRPELR	R	G	95.00%	3.38	0.368	0	0	1	0	2	1,921.87	294	311	TRUE	
SNU216_PC3_03	Cdc42-interaction protein 4 long isoform	IPI00168849	68,353.10	100.00%	2	3	3	0.02%	7.49%	NKPRPPPLSPLGGPVPSALPNGPPSPR	K	S	95.00%	7.2	0.605	0	0	1	1	2	2,776.47	327	353	TRUE	
SNU216_PC3_03	Importin alpha-2 subunit	IPI00002214	57,862.50	100.00%	1	1	1	0.01%	3.21%	NVSSFPDDATSPLQENR	R	N	95.00%	4.06	0.531	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216_PC3_03	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	3	0.02%	6.79%	EATAQKPTGSVGSTVTTPPPLVR	K	G	95.00%	3.22	0.344	0	0	1	0	2	2,374.20	173	195	TRUE	
SNU216_PC3_03	Isoform 1 of Transcriptional repressor p66 alpha	IPI00410330,IPI00444526,IP	68,062.80	99.80%	2	3	3	0.02%	6.79%	RPPSPDVIVLSDNEQPSSPR	R	V	95.00%	3.92	0.516	0	1	1	0	2	2,430.01	97	116	TRUE	
SNU216_PC3_03	RNA-binding protein 34	IPI00181617	48,565.90	98.90%	1	1	1	0.01%	3.02%	SVQEGENPDDGVR	R	G	95.00%	2.26	0.288	0	1	0	0	2	1,481.59	14	26	TRUE	
SNU216_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	APPQTHLPSGASSGTGSASATHGGGSPPGT	R	G	91.40%	3.15	0.161	0	0	0	1	2	2,865.29	88	118	TRUE	
SNU216_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	ASPEPQRENASPAPGTTAEEAMSR	R	G	95.00%	4.26	0.45	0	0	1	0	2	2,564.11	957	980	TRUE	
SNU216_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	RVGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	4.2	0.407	0	0	1	1	2	3,176.48	936	963	TRUE	
SNU216_PC3_03	Isoform 1 of Large proline-rich protein BAT3	IPI00465128,IPI00513728,IP	118,691.40	100.00%	4	5	5	0.03%	6.67%	VGDPPQPLPEEPMEVQGAERASPEPQR	R	E	95.00%	2.68	0.314	0	0	1	0	2	3,020.38	937	963	TRUE	
SNU216_PC3_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	5.38%	HLFSSTENLAAGSWKEPAEGGGLSSDR	K	Q	95.00%	5.43	0.411	0	0	1	0	2	2,883.29	353	379	TRUE	
SNU216_PC3_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	5.38%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	90.10%	6.25	0.0255	0	0	1	0	2	3,245.46	181	211	TRUE	
SNU216_PC3_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	3	3	3	0.02%	5.38%	RSSLLSLMTGK	R	K	95.00%	2.26	0.259	0	1	0	0	2	1,272.64	433	443	TRUE	
SNU216_PC3_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	4	5	0.03%	6.56%	ENHGQADHSPSMTATHFPR	R	V	95.00%	3.75	0.362	0	0	1	1	2	2,199.90	254	272	TRUE	
SNU216_PC3_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	4	5	0.03%	6.56%	SPPETAAPVEDMAR	R	R	95.00%	3.02	0.241	0	1	0	0	2	1,550.66	550	563	TRUE	
SNU216_PC3_03	Isoform 1 of SH3 domain-binding protein 1	IPI00444788,IPI00445123,IP	75,714.70	100.00%	3	4	5	0.03%	6.56%	TESEVPPRPASPK	R	V	95.00%	3.17	0.393	0	2	0	0	2	1,474.69	534	546	TRUE	
SNU216_PC3_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	HQTLEVSLSRDSPLK	K	T	95.00%	3.27	0.328	0	0	1	0	2	1,789.88	358	372	TRUE	
SNU216_PC3_03	nuclear factor of activated T-cells, cytoplasmic, ca	IPI00171475	45,817.60	99.80%	2	2	2	0.01%	8.11%	KKTEFLDLDNSPLSPPSPR	K	T	95.00%	5.59	0.453	0	0	1	0	2	2,221.09	188	206	TRUE	
SNU216_PC3_03	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	3	3	0.02%	6.69%	KPEDVLDDDDAGSAPLK	R	S	95.00%	3.75	0.455	0	1	0	0	2	1,864.82	234	250	TRUE	
SNU216_PC3_03	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	100.00%	2	3	3	0.02%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	95.00%	2.99	0.441	0	1	1	0	2	2,020.92	233	250	TRUE	
SNU216_PC3_03	Histone deacetylase 2	IPI00289601	55,365.50	100.00%	1	2	7	0.05%	6.76%	MLPHAPGVQMQAIPEDAVHEDSGDEDGEI	R	I	95.00%	5.9	0.586	0	0	3	4	2	3,681.55	373	405	TRUE	
SNU216_PC3_03	Negative elongation factor B	IPI00103483	65,699.50	99.80%	1	2	2	0.01%	4.48%	KPSPAQAAETPALELPLPSVPAPAPL	R	-	95.00%	5.16	0.539	0	1	1	0	2	2,642.38	555	580	TRUE	
SNU216_PC3_03	Non-POU domain-containing octamer-binding pr	IPI00304596	54,231.60	100.00%	1	1	1	0.01%	4.67%	FGQAATMEGIGAIGGTPPAFNR	R	A	95.00%	2.88	0.273	0	0	1	0	2	2,243.03	435	456	TRUE	
SNU216_PC3_03	Isoform Long of Glycylpeptide N-tetradecanoyltra	IPI00329692,IPI00749082	56,979.20	100.00%	1	1	1	0.01%	2.42%	GGLSPANDTGAK	R	K	94.40%	1.83	0.159	1	0	0	0	2	1,167.50	44	55	TRUE	
SNU216_PC3_03	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	3	3	0.02%	6.46%	DRSSPPPGYIPDELHQVAR	R	N	95.00%	5.14	0.431	0	0	1	1	2	2,214.03	161	179	TRUE	
SNU216_PC3_03	Mitogen-activated protein kinase kinase kinase 2	IPI00513803	69,743.30	99.80%	2	3	3	0.02%	6.46%	RRGSDIDNPTLTVMDISPPSR	R	S	95.00%	4.72	0.498	0	0	1	0	2	2,407.14	328	348	TRUE	
SNU216_PC3_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	2	2	2	0.01%	6.79%	SRWSGSQQVEQPTGSVLWMAPEVIR	K	M	95.00%	4.8	0.52	0	0	1	0	2	2,908.38	494	518	TRUE	
SNU216_PC3_03	RAF proto-oncogene serine/threonine-protein kin	IPI00021786	73,052.20	100.00%	2	2	2	0.01%	6.79%	STSTPNVHMVSTTLPVDSR	R	M	95.00%	4.22	0.462	0	1	0	0	2	2,108.97	257	275	TRUE	
SNU216_PC3_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	6.43%	DGGRSSPGGQDEGGFMAQGK	R	T	95.00%	3.42	0.285	0	0	1	0	2	2,017.81	298	317	TRUE	
SNU216_PC3_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	6.43%	FIHQQPQSSSPVYGSSAK	R	T	95.00%	4.25	0.0849	0	1	0	0	2	2,027.92	76	93	TRUE	
SNU216_PC3_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	100.00%	3	3	3	0.02%	6.43%	SSPGGQDEGGFMAQGK	R	T	95.00%	2.66	0.324	0	0	1	0	2	1,632.64	302	317	TRUE	
SNU216_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	5	6	6	0.04%	8.40%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.6	0.199	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	5	6	6	0.04%	8.40%	HGSDPAFAPGPR	R	G	95.00%	2.28	0.385	0	1	0	0	2	1,288.55	521	532	TRUE	
SNU216_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	5	6	6	0.04%	8.40%	RGSLTLTISGESPK	R	A	95.00%	3.41	0.357	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	5	6	6	0.04%	8.40%	RGSPTTGFIEQKGSPTSAYPER	R	R	93.20%	4.77	0.0786	0	0	1	0	2	2,526.11	890	911	TRUE	
SNU216_PC3_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	5	6	6	0.04%	8.40%	RLSLGQGDSTEAATEER	R	G	95.00%	3.57	0.415	0	0	1	1	2	1,899.84	1001	1017	TRUE	
SNU216_PC3_03	Isoform 2AC of Catenin delta-1	IPI00219726,IPI00219728	98,051.20	100.00%	1	1	1	0.01%	2.60%	TLDRSGDLGDMEPLKGTTPLMQK	R	-	95.00%	3.06	0.177	0	0	1	0	2	2,583.22	856	878	TRUE	
SNU216_PC3_03	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.85%	SQDADSPGSSGAPENLTFK	K	E	95.00%	3.19	0.399	0	1	0	0	2	1,987.83	1784	1802	TRUE	
SNU216_PC3_03	Isoform 5 of Afadin	IPI00759546	207,792.60	99.80%	2	2	2	0.01%	1.85%	SSPNVANQPPSPGGK	R	S	95.00%	2.29	0.245	0	1	0	0	2	1,516.68	1171	1185	TRUE	
SNU216_PC3_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	99.80%	2	2	2	0.01%	11.90%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	3.28	0.296	0	0	1	0	2	2,375.94	172	191	TRUE	
SNU216_PC3_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	99.80%	2	2	2	0.01%	11.90%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.17	0.377	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216_PC3_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	3	0.02%	5.57%	GFENVIHDKLPLQESEEEER	K	E	95.00%	5.03	0.353	0	0	1	0	2	2,478.12	143	162	TRUE	
SNU216_PC3_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	3	0.02%	5.57%	GFENVIHDKLPLQESEEEEREER	K	S	95.00%	3.93	0.428	0	0	1	0	2	2,892.31	143	165	TRUE	
SNU216_PC3_03	Isoform Sp100-HMG of Nuclear autoantigen Sp-1	IPI00011675	100,418.80	100.00%	3	3	3	0.02%	5.57%	VIGQDHDFSESSEEEAPAEASSGALR	R	S	95.00%	3.55	0.324	0	0	1	0	2	2,878.15	399	424	TRUE	
SNU216_PC3_03	Ubiquitin carboxyl-terminal hydrolase 14	IPI00219913,IPI00640357	52,387.10	99.80%	1	1	1	0.01%	3.25%	ASGEMASAQYITAALR	R	D	95.00%	2.34	0.281	0	1	0	0	2	1,719.78	107	122	TRUE	
SNU216_PC3_03	Isoform 2 of Dual specificity protein kinase CLK3	IPI00219340	18,971.70	99.80%	2	2	2	0.01%	9.21%	RYRSPEPDPYLSYR	K	W	95.00%	2.73	0.283	0	0	1	0	2	1,878.85	6	19	TRUE	
SNU216_PC3_03	Isoform 2 of Dual specificity protein kinase CLK3	IPI00219340	18,971.70	99.80%	2	2	2	0.01%	9.21%	YRSPEPDPYLSYR	R	W	95.00%	4.07	0.46	0	0	1	0	2	1,722.75	7	19	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	25	0.17%	4.56%	EISDDEAEEEK	K	G	95.00%	2.8	0.437	0	1	0	0	2	1,373.50	223	233	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	25	0.17%	4.56%	EISDDEAEEEKGEK	K	E	95.00%	3.24	0.464	0	2	0	0	2	1,687.66	223	236	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	25	0.17%	4.56%	EKEISDDEAEEEK	K	G	95.00%	2.95	0.442	0	2	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	25	0.17%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.73	0.435	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	25	0.17%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.7	0.521	0	3	3	0	2	1,817.70	249	264	TRUE	
SNU216_PC3_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	6	9	25	0.17%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	4.22	0.381	0	6	6	1	2	1,945.79	249	265	TRUE	
SNU216_PC3_03	GMP synthase	IPI00029079	76,716.70	100.00%	1	1	1	0.01%	1.59%	TLNMTTSPEEK	K	R	95.00%	2.18	0.222	0	1	0	0	2	1,330.56	326	336	TRUE	
SNU216_PC3_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	99.80%	2	2	2	0.01%	5.84%	MDRDPLGGLADMFGQMPGSGIGTGPGVI	K	H	95.00%	4.58	0.186	0	0	0	1	2	4,001.82	363	400	TRUE	
SNU216_PC3_03	Eukaryotic translation initiation factor 4 gamma 2	IPI00015952	102,366.80	99.80%	2	2	2	0.01%	5.84%	TQTPPLGQTPQLGLK	R	T	95.00%	2.3	0.283	0	1	0	0	2	1,658.85	506	520	TRUE	
SNU216_PC3_03	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	2	2	2	0.01%	8.87%	LFGGFNSSDTVTSPQR	K	A	95.00%	3.24	0.279	0	1	0	0	2	1,792.79	62	77	TRUE	
SNU216_PC3_03	Isoform 2 of Proto-oncogene tyrosine-protein kin	IPI00328867	60,458.40	100.00%	2	2	2	0.01%	8.87%	SLEPAENVHGAGGGAFPASQTPSKPASADC	R	G	95.00%	4.88	0.414	0	0	0	1	2	3,180.45	16	47	TRUE	
SNU216_PC3_03	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	100.00%	2	2	2	0.01%	5.09%	EGSQGELTPANSQSR	R	M	95.00%	2.03	0.284	0	1	0	0	2	1,640.69	508	522	TRUE	
SNU216_PC3_03	G protein pathway suppressor 1 isoform 2	IPI00156282,IPI00414289	59,052.10	100.00%	2	2	2	0.01%	5.09%	NQIHVKSPPREGSQGELTPANSQSR	R	M	95.00%	3.51	0.415	0	0	0	1	2	2,797.34	498	522	TRUE	
SNU216_PC3_03	FLN29 gene product	IPI00009146	64,840.60	98.90%	1	1	1	0.01%	2.41%	LDSQPQETSPELPR	R	R	95.00%	2.95	0.35	0	1	0	0	2	1,676.75	407	420	TRUE	
SNU216_PC3_03	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	48,851.60	99.80%	2	2	2	0.01%	6.52%	RNSTDSRPVSVTYR	K	F	95.00%	2.84	0.326	0	0	1	0	2	1,717.80	231	244	TRUE	
SNU216_PC3_03	WD repeat domain 20 isoform 4	IPI00290950,IPI00329787,IP	48,851.60	99.80%	2	2	2	0.01%	6.52%	SNSLPHSAVSNAGSK	R	S	95.00%	2.2	0.37	0	1	0	0	2	1,535.68	308	322	TRUE	
SNU216_PC3_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	9	0.06%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.37	0.246	0	1	3	0	2	2,926.25	191	216	TRUE	
SNU216_PC3_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	100.00%	2	4	9	0.06%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	4.19	0.24	0	0	3	2	2	3,082.36	191	217	TRUE	
SNU216_PC3_03	Isoform 1 of Cisplatin resistance-associated overe	IPI00107745	51,467.10	99.80%	1	1	2	0.01%	5.56%	ESDTKNEVNGTSEDIKSEGDTQSN	K	-	95.00%	4.45	0.283	0	0	2	0	2	2,664.08	409	432	TRUE	
SNU216_PC3_03	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	10.50%	GTEAPAVVTEEEDDDEETAPPVIAPRPDHTK	K	S	95.00%	5.77	0.398	0	0	1	1	2	3,395.52	161	191	TRUE	
SNU216_PC3_03	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	10.50%	QKYLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.15	0.329	0	0	1	0	2	2,673.30	137	160	TRUE	
SNU216_PC3_03	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	10.50%	YLSFTPPEK	K	D	86.30%	1.54	0.273	0	1	0	0	2	1,161.52	139	147	TRUE	
SNU216_PC3_03	p21-activated kinase 2	IPI00419979	58,044.10	100.00%	4	5	5	0.03%	10.50%	YLSFTPPEKDGFPSGTPALNAK	K	G	95.00%	3.78	0.443	0	1	0	0	2	2,417.14	139	160	TRUE	
SNU216_PC3_03	Histone H1.5	IPI00217468	22,450.50	100.00%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.98	0.529	0	1	1	0	2	2,061.97	1	20	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	Histone H1.5	IPI00217468	22,450.50	100.00%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	4.55	0.428	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC3_03	Histone H1.4	IPI00217467	21,735.70	100.00%	2	2	2	0.01%	13.30%	KAPKSPAK	K	A	93.00%	1.86	0.221	0	1	0	0	2	906.481	182	189	TRUE	
SNU216_PC3_03	Histone H1.4	IPI00217467	21,735.70	100.00%	2	2	2	0.01%	13.30%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	3.55	0.458	0	0	1	0	2	2,112.07	1	21	TRUE	
SNU216_PC3_03	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	99.80%	1	1	1	0.01%	4.95%	RDSSESQLASTESDKPTTGR	R	V	95.00%	6.06	0.555	0	0	1	0	2	2,231.98	64	83	TRUE	
SNU216_PC3_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	4	0.03%	7.84%	EAEALLQSMGLTPESPIVPPPMSPSSK	R	S	95.00%	5.29	0.584	0	0	2	1	2	2,873.37	59	85	TRUE	
SNU216_PC3_03	Isoform 2C of Cytoplasmic dynein 1 intermediate	IPI00216348	68,425.60	100.00%	2	3	4	0.03%	7.84%	SVSTPSEAGSQDSGDGAVGSR	K	R	89.10%	3.72	0.0165	0	1	0	0	2	2,030.83	86	106	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.41	0.452	0	2	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	4.17	0.395	0	2	0	0	2	1,914.80	480	498	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	AGLESGAEPGDGDSDTTKKK	K	K	95.00%	3.31	0.186	0	1	1	0	2	2,042.89	480	499	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	AKAGLESGAEPGDGDSDTTK	K	K	95.00%	2.16	0.439	0	1	0	0	2	1,985.83	478	497	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	AKAGLESGAEPGDGDSDTTKK	K	K	95.00%	2.84	0.362	0	0	2	0	2	2,113.93	478	498	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	EVELVSE	K	-	95.00%	1.96	0.2	1	0	0	0	2	884.3649	507	513	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	KSLPEEDVAEIQHAEEFLIKPESK	R	V	95.00%	6.07	0.51	0	0	0	1	2	2,846.39	19	42	TRUE	
SNU216_PC3_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	100.00%	8	9	12	0.08%	10.30%	SLPEEDVAEIQHAEEFLIKPESK	K	V	95.00%	4.55	0.214	0	0	0	1	2	2,718.29	20	42	TRUE	
SNU216_PC3_03	hypothetical protein LOC65124	IPI00253323	55,672.10	99.80%	1	1	1	0.01%	2.29%	DLVMGSSPQLKR	R	S	95.00%	2.4	0.259	0	1	0	0	2	1,410.68	207	218	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	ASLGSLEGEAEAASSPK	K	G	95.00%	2.88	0.432	0	2	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	ASLGSLEGEAEAASSPKGK	K	F	95.00%	4.22	0.477	0	1	0	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	FKAEAPLPSPK	K	L	95.00%	2.29	0.263	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	GGVTGSPEASISGSKGDLK	K	S	95.00%	2.94	0.324	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	GHYEVTGSDDETGK	K	L	95.00%	2.58	0.214	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.09	0.422	0	0	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	GKGGVTGSPEASISGSK	K	G	95.00%	3.44	0.146	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.15	0.394	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	ISAPNVDFNLEGPK	R	V	95.00%	2.62	0.369	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	ISMQDVDLSLGSPK	K	L	95.00%	2.78	0.252	0	1	0	0	2	1,569.72	253	266	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	81.00%	4.69	0.0635	0	0	1	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC3_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	13	14	0.10%	4.02%	VKTPEMIIQKPK	K	I	95.00%	3.06	0.468	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216_PC3_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	99.80%	1	1	1	0.01%	4.00%	GGRSPDEVTLTSIVPTR	K	D	95.00%	2.79	0.242	0	0	1	0	2	1,864.92	317	333	TRUE	
SNU216_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	94.10%	7.45	0.0048	0	0	1	1	2	3,614.83	125	161	TRUE	
SNU216_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.15	0.554	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.91	0.478	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC3_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	4	6	6	0.04%	20.50%	QSSFEIPDDVPLPAGWEMAK	R	T	95.00%	2.95	0.268	0	1	0	0	2	2,297.02	162	181	TRUE	
SNU216_PC3_03	Isoform Delta-1 of Serine/threonine-protein phos	IPI00000030	69,994.40	99.80%	1	1	1	0.01%	2.16%	RKSELPQDVYTIK	R	A	95.00%	2.89	0.3	0	0	1	0	2	1,656.84	571	583	TRUE	
SNU216_PC3_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	1	2	2	0.01%	3.21%	DKSPVREPIDNLTPEER	K	D	95.00%	4.27	0.438	0	1	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC3_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.90%	2	3	3	0.02%	2.95%	NKPGPNIESGNEDDDASFK	K	I	95.00%	4.26	0.506	0	1	1	0	2	2,113.87	206	224	TRUE	
SNU216_PC3_03	Eukaryotic translation initiation factor 5B	IPI00299254	138,804.30	99.90%	2	3	3	0.02%	2.95%	QSFDDNDSEELEDKDSK	K	S	95.00%	4.39	0.331	0	1	0	0	2	2,080.79	106	122	TRUE	
SNU216_PC3_03	Signal recognition particle 72 kDa protein	IPI00215888	74,477.10	100.00%	1	1	1	0.01%	1.79%	NYDPKVTPDPER	K	W	95.00%	2.3	0.289	0	1	0	0	2	1,510.66	564	575	TRUE	
SNU216_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	3	3	3	0.02%	7.07%	DFQEYVEPGEDFPASPQR	R	R	95.00%	3.91	0.428	0	1	0	0	2	2,190.90	193	210	TRUE	
SNU216_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	3	3	3	0.02%	7.07%	DFQEYVEPGEDFPASPQRR	R	N	95.00%	3.19	0.213	0	1	0	0	2	2,347.00	193	211	TRUE	
SNU216_PC3_03	Cytoplasmic dynein 1 light intermediate chain 1	IPI00007675	56,608.30	100.00%	3	3	3	0.02%	7.07%	SVSSNVASVSPIPAGSKK	R	I	95.00%	2.92	0.324	0	1	0	0	2	1,794.90	412	429	TRUE	
SNU216_PC3_03	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	APAPLGTVADSLRASDGQLQAK	K	A	95.00%	3.64	0.393	0	0	1	0	2	2,246.12	187	208	TRUE	
SNU216_PC3_03	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	KWSNSQPADLAHMGR	R	S	95.00%	3.46	0.408	0	0	1	0	2	1,777.78	143	157	TRUE	
SNU216_PC3_03	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	SFSEDTLMDGPAR	R	I	95.00%	2.61	0.37	0	1	0	0	2	1,505.60	123	135	TRUE	
SNU216_PC3_03	SH2 domain-containing protein 3A	IPI00305020	63,093.60	100.00%	4	4	4	0.03%	10.20%	TSSDPVLLK	R	A	86.80%	1.76	0.0925	1	0	0	0	2	1,039.51	178	186	TRUE	
SNU216_PC3_03	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	3	0.02%	8.10%	GPDEAMEDGEEGSDDEAEWVVTK	R	D	95.00%	3.72	0.524	0	1	1	0	2	2,574.97	426	448	TRUE	
SNU216_PC3_03	EH-domain-containing protein 2	IPI00100980	61,163.20	100.00%	2	3	3	0.02%	8.10%	SKYDEIFYNLAPADGKLSGSK	K	A	95.00%	3.15	0.262	0	0	1	0	2	2,383.12	451	471	TRUE	
SNU216_PC3_03	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	2	2	2	0.01%	7.85%	QASEQENEDSMAEAPESNHPEDQETMETI	K	G	95.00%	4.42	0.337	0	0	0	1	2	4,177.64	296	331	TRUE	
SNU216_PC3_03	Isoform 1 of tRNA	IPI00099311	55,800.80	100.00%	2	2	2	0.01%	7.85%	QASEQENEDSMAEAPESNHPEDQETMETI	K	E	95.00%	6.23	0.594	0	0	0	1	2	4,459.81	296	334	TRUE	
SNU216_PC3_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.60%	2	2	2	0.01%	3.31%	NKPLSPIKLTPTSVLDYFGTGSVQR	K	S	95.00%	4.89	0.482	0	0	1	0	2	2,798.45	152	176	TRUE	
SNU216_PC3_03	Isoform 1 of Replication factor C subunit 1	IPI00375358,IPI00375359	128,189.40	99.60%	2	2	2	0.01%	3.31%	SSADKIGEVSSPK	K	A	92.00%	2.15	0.202	0	1	0	0	2	1,384.64	302	314	TRUE	
SNU216_PC3_03	HIV TAT specific factor 1	IPI00013788	85,854.60	99.80%	2	2	2	0.01%	5.96%	VFDDESDKEKDEEYADEK	K	G	95.00%	3.87	0.318	0	1	0	0	2	2,271.83	637	654	TRUE	
SNU216_PC3_03	HIV TAT specific factor 1	IPI00013788	85,854.60	99.80%	2	2	2	0.01%	5.96%	VLDEEGSEREFDEDSDEKEEEEDTYEK	K	V	95.00%	3.69	0.349	0	0	1	0	2	3,440.26	610	636	TRUE	
SNU216_PC3_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	IRDWHLKQSPASPER	K	D	95.00%	3.15	0.301	0	0	1	0	2	1,899.92	136	150	TRUE	
SNU216_PC3_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	2	2	3	0.02%	6.33%	MIGFPSSAGSVSPR	K	S	95.00%	2.78	0.448	0	2	0	0	2	1,472.66	416	429	TRUE	
SNU216_PC3_03	step II splicing factor SLU7	IPI00294435	68,388.00	99.80%	1	1	1	0.01%	4.44%	DHNSEDEDEDKYADDIDMPGQNFDSK	K	R	95.00%	5.5	0.662	0	0	1	0	2	3,109.15	232	257	TRUE	
SNU216_PC3_03	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	4.54	0.361	0	2	2	0	2	1,673.69	221	235	TRUE	
SNU216_PC3_03	SNW domain-containing protein 1	IPI00013830	61,495.90	100.00%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.79	0.369	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216_PC3_03	Isoform 1 of DNA replication licensing factor MCI	IPI00299904	81,309.00	100.00%	1	1	1	0.01%	2.78%	SRDPGMVRSPQNQYPAELMR	R	R	95.00%	3.12	0.228	0	0	1	0	2	2,412.10	113	132	TRUE	
SNU216_PC3_03	Heat shock protein 60	IPI00472102	61,213.90	100.00%	1	1	1	0.01%	2.09%	TVIIEQSWGSPK	R	V	95.00%	3.32	0.314	0	1	0	0	2	1,424.68	61	72	TRUE	
SNU216_PC3_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	4	0.03%	3.43%	VALSDDETKETENMR	R	K	95.00%	3.97	0.41	0	2	1	0	2	1,817.76	304	318	TRUE	
SNU216_PC3_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	4	0.03%	3.43%	VALSDDETKETENMRK	R	K	95.00%	3.35	0.282	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216_PC3_03	Lamin-B2	IPI00009771	69,949.40	100.00%	3	3	4	0.03%	9.52%	AGGPATPLSPTR	R	L	95.00%	2.11	0.394	0	2	0	0	2	1,284.54	29	40	TRUE	
SNU216_PC3_03	Lamin-B2	IPI00009771	69,949.40	100.00%	3	3	4	0.03%	9.52%	AGQMVTVWAAGAGVAHSPPSTLVWK	R	G	95.00%	3.52	0.502	0	0	1	0	2	2,601.27	525	549	TRUE	
SNU216_PC3_03	Lamin-B2	IPI00009771	69,949.40	100.00%	3	3	4	0.03%	9.52%	ATSSSSGSLSATGR	R	L	84.80%	2.62	0.111	0	1	0	0	2	1,348.57	417	430	TRUE	
SNU216_PC3_03	Lamin-B2	IPI00009771	69,949.40	100.00%	3	3	4	0.03%	9.52%	LSPSPSSR	K	V	95.00%	1.49	0.366	0	1	0	0	2	910.403	404	411	FALSE	IPI00217975
SNU216_PC3_03	insulin-like growth factor 2 mRNA binding protei	IPI00179713,IPI00180983,IP	66,122.40	100.00%	1	2	4	0.03%	2.84%	ISYIPDEEVSSPSPPQR	K	A	95.00%	3.34	0.365	0	3	1	0	2	1,980.90	152	168	TRUE	
SNU216_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.05%	15.80%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	5.97	0.497	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.05%	15.80%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	2.86	0.204	0	0	1	0	2	2,326.09	283	305	TRUE	
SNU216_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.05%	15.80%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	4.89	0.584	0	1	1	0	2	1,912.96	264	282	TRUE	
SNU216_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.05%	15.80%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	93.00%	3.13	0.181	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216_PC3_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	7	7	0.05%	15.80%	SPGAPGPLTLK	R	E	95.00%	1.9	0.365	0	1	0	0	2	1,117.57	354	364	TRUE	
SNU216_PC3_03	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	3	3	3	0.02%	2.65%	EREVDEDSEPER	R	E	95.00%	1.97	0.283	0	1	0	0	2	1,569.61	75	86	TRUE	
SNU216_PC3_03	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	3	3	3	0.02%	2.65%	EREVDEDSEPEREVR	R	A	95.00%	2.44	0.271	0	1	0	0	2	1,953.82	75	89	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	U4/U6.U5 tri-snRNP-associated protein 2	IPI00419844	65,382.40	100.00%	3	3	3	0.02%	2.65%	EVDEDSEPEREVR	R	A	95.00%	2.58	0.255	0	0	1	0	2	1,668.68	77	89	TRUE	
SNU216_PC3_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	2	2	2	0.01%	3.40%	ELSESVQQQSTPVPLISPKR	K	Q	95.00%	2.64	0.349	0	0	1	0	2	2,303.16	550	569	TRUE	
SNU216_PC3_03	RACK7 isoform e	IPI00216540,IPI00418316,IP	137,037.30	100.00%	2	2	2	0.01%	3.40%	SPMSTNSSVHTGSDVEQDAEKK	R	A	95.00%	3.76	0.414	0	0	1	0	2	2,414.02	451	472	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	LHKTEDGGWEWSDDEFDEESEEGK	R	A	95.00%	3.98	0.465	0	0	1	0	2	2,934.13	328	351	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	LHKTEDGGWEWSDDEFDEESEEGKAAISQL	R	S	95.00%	5.61	0.446	0	0	0	1	2	3,673.56	328	358	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.37	0.643	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	100.00%	4	4	4	0.03%	5.88%	TEDGGWEWSDDEFDEESEEGKAAISQLR	K	S	95.00%	5.4	0.534	0	0	1	0	2	3,295.32	331	358	TRUE	
SNU216_PC3_03	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	3	3	0.02%	5.39%	EKLQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	4.51	0.357	0	0	1	0	2	2,919.15	41	67	TRUE	
SNU216_PC3_03	Periodic tryptophan protein 1 homolog	IPI00014298,IPI00385054	16,308.70	99.80%	2	3	3	0.02%	5.39%	LQEEGGGSDEEETGSPSEDGMQSAR	K	T	95.00%	5.34	0.6	0	1	1	0	2	2,662.01	43	67	TRUE	
SNU216_PC3_03	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	5.96%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAK	R	K	95.00%	5.36	0.374	0	0	0	1	2	3,260.56	469	498	TRUE	
SNU216_PC3_03	Hydroxymethylglutaryl-CoA synthase, cytoplasmic	IPI00008475	57,295.00	99.80%	2	2	2	0.01%	5.96%	RPTPNDDTLDEGVGLVHSNIATEHIPSPAKK	R	V	95.00%	6.33	0.521	0	0	0	1	2	3,388.65	469	499	TRUE	
SNU216_PC3_03	ribosomal protein S6 kinase, 90kDa, polypeptide 1	IPI00017305,IPI00477982,IP	65,055.30	100.00%	1	1	1	0.01%	2.55%	TPKDSPGIPPSAGAHQLFR	R	G	95.00%	3.49	0.276	0	0	1	0	2	2,056.00	202	220	TRUE	
SNU216_PC3_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	8	13	0.09%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPK	K	P	95.00%	5.63	0.431	0	0	1	0	2	2,936.42	217	242	TRUE	
SNU216_PC3_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	8	13	0.09%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.66	0.538	0	0	2	2	2	3,189.57	217	244	TRUE	
SNU216_PC3_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	8	13	0.09%	6.24%	STTPPPAEPVSLPQEPPK	K	P	95.00%	3.42	0.482	0	1	1	0	2	1,951.94	225	242	TRUE	
SNU216_PC3_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	4	8	13	0.09%	6.24%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	4.31	0.547	0	2	3	1	2	2,205.10	225	244	TRUE	
SNU216_PC3_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,505.30	99.90%	1	1	1	0.01%	2.38%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	4.05	0.394	0	0	1	0	2	2,460.13	639	659	TRUE	
SNU216_PC3_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.90%	2	2	2	0.01%	1.77%	ALSSLHGDDQDSEDEVLTIPEVK	K	V	95.00%	3.56	0.228	0	0	1	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC3_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.90%	2	2	2	0.01%	1.77%	YEKDQGSFTEVVSISNLGMAK	K	T	95.00%	3.26	0.223	0	0	1	0	2	2,383.09	834	854	TRUE	
SNU216_PC3_03	WW domain-binding protein 11	IPI00170786	69,999.90	99.60%	1	1	1	0.01%	2.34%	RRDEDMLYSPELAQR	R	G	92.90%	2.84	0.174	0	0	1	0	2	1,958.88	229	243	TRUE	
SNU216_PC3_03	Tubulin--tyrosine ligase-like protein 12	IPI00029048	74,403.70	100.00%	1	2	2	0.01%	4.04%	SSPGQTPEEGAQALAEFAALHGPALR	R	A	95.00%	4.81	0.51	0	0	1	1	2	2,685.27	15	40	TRUE	
SNU216_PC3_03	Cytoplasmic dynein 1 light intermediate chain 2	IPI00011592	54,099.80	99.90%	1	1	1	0.01%	3.46%	TGSPGSPGAGGVQSTAK	K	K	95.00%	2.52	0.432	0	1	0	0	2	1,618.65	441	457	TRUE	
SNU216_PC3_03	Ran GTPase-activating protein 1	IPI00294879,IPI00411570	63,543.30	100.00%	1	1	1	0.01%	5.45%	ILDPNTGEPAPVLSSPPPADVSTFLAFPSPEK	K	L	95.00%	4.39	0.245	0	0	1	0	2	3,450.62	414	445	TRUE	
SNU216_PC3_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	2	2	2	0.01%	3.40%	SQGDEAGGHGEDRPEPLSPK	R	E	95.00%	3.12	0.476	0	1	0	0	2	2,142.91	361	380	TRUE	
SNU216_PC3_03	Isoform 1 of Opioid growth factor receptor	IPI00021537	73,338.60	100.00%	2	2	2	0.01%	3.40%	SQGDEAGGHGEDRPEPLSPKESK	R	K	84.80%	2.61	0.219	0	0	1	0	2	2,487.08	361	383	TRUE	
SNU216_PC3_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	2	0.01%	2.78%	ENPPVEDSSDEDDKR	R	N	95.00%	2.13	0.36	0	1	0	0	2	1,891.66	491	505	TRUE	
SNU216_PC3_03	Source of immunodominant MHC-associated pep	IPI00152377	93,677.70	100.00%	2	2	2	0.01%	2.78%	ENPPVEDSSDEDDKRNQGNLYDK	R	A	95.00%	3.01	0.359	0	0	1	0	2	2,744.13	491	513	TRUE	
SNU216_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	3	4	4	0.03%	9.09%	DYDEEEQGYDSEKEK	R	K	95.00%	3.36	0.29	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	3	4	4	0.03%	9.09%	LNHVAAGLVSPSLK	K	S	95.00%	2.88	0.428	0	1	1	0	2	1,485.78	138	151	TRUE	
SNU216_PC3_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	100.00%	3	4	4	0.03%	9.09%	VNGDDHHEEDMDMSD	K	-	95.00%	2.24	0.391	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216_PC3_03	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.03%	7.71%	KTNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	3.83	0.367	0	0	0	1	2	2,525.28	405	427	TRUE	
SNU216_PC3_03	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.03%	7.71%	SASDNTLVAMDFSGHAGR	R	V	95.00%	3.49	0.422	0	1	1	0	2	1,915.80	366	383	TRUE	
SNU216_PC3_03	Growth factor receptor-bound protein 7	IPI00448767	59,764.70	100.00%	3	4	4	0.03%	7.71%	TNHRLSLPMPASGTSLSAAIHR	K	T	95.00%	4.75	0.34	0	0	1	0	2	2,397.19	406	427	TRUE	
SNU216_PC3_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.80%	2	3	3	0.02%	6.69%	NWTEDMEGGISSPVKK	K	T	95.00%	4.12	0.459	0	1	1	0	2	1,857.81	312	327	TRUE	
SNU216_PC3_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.80%	2	3	3	0.02%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.19	0.475	0	1	0	0	2	2,099.87	328	345	TRUE	
SNU216_PC3_03	Ubiquitin-like 1-activating enzyme E1B	IPI00023234	71,225.20	100.00%	1	1	1	0.01%	2.19%	LNVHKVTVLTLQDK	R	I	95.00%	3.01	0.239	0	0	0	1	2	1,687.91	454	467	TRUE	
SNU216_PC3_03	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ALSSDSILSPAPDAR	R	A	95.00%	2.49	0.313	0	1	0	0	2	1,579.74	392	406	TRUE	
SNU216_PC3_03	Protein C19orf21	IPI00217121	75,355.70	99.80%	2	2	2	0.01%	4.57%	ASTPDWVSEGPQPGLR	R	R	95.00%	2.54	0.359	0	1	0	0	2	1,776.80	375	390	TRUE	
SNU216_PC3_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	100.00%	1	2	2	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.23	0.479	0	1	1	0	2	2,238.86	634	651	TRUE	
SNU216_PC3_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	5	11	0.08%	5.74%	AEEDEILNRSPR	K	N	95.00%	3.12	0.417	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC3_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	5	11	0.08%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	4.91	0.623	0	4	4	0	2	2,188.85	552	570	TRUE	
SNU216_PC3_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	5	11	0.08%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.43	0.257	0	1	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	2	3	4	0.03%	2.72%	ASAVSELSPR	R	E	93.20%	1.8	0.254	0	1	0	0	2	1,096.50	236	245	TRUE	
SNU216_PC3_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	2	3	4	0.03%	2.72%	ERSPALKSPLQSVVVR	R	R	95.00%	3.22	0.353	0	1	2	0	2	1,925.96	246	261	TRUE	
SNU216_PC3_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	6	6	0.04%	11.70%	AHSLMELSPSAPPGGSPHLDSSR	K	S	95.00%	4.56	0.477	0	0	1	0	2	2,410.09	593	615	TRUE	
SNU216_PC3_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	6	6	0.04%	11.70%	DLTHSDSESSLHMSDR	R	Q	95.00%	2.83	0.285	0	1	1	0	2	1,896.74	515	530	TRUE	
SNU216_PC3_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	6	6	0.04%	11.70%	LIEGVHPGSLVEKLPDSPALAK	R	K	95.00%	4.72	0.527	0	0	1	0	2	2,350.24	559	580	TRUE	
SNU216_PC3_03	stromal interaction molecule 1 precursor	IPI00166512,IPI00299063	77,493.30	100.00%	4	6	6	0.04%	11.70%	SHSPSSPDPDTPSPVGDSR	R	A	95.00%	3.45	0.453	0	1	1	0	2	2,001.82	616	634	TRUE	
SNU216_PC3_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	99.80%	2	2	2	0.01%	1.77%	MVIQGPSSPQGEAMVTDVLEDQKEGR	K	S	95.00%	6.1	0.549	0	0	1	0	2	2,881.31	1112	1137	TRUE	
SNU216_PC3_03	Isoform 1 of Tumor suppressor p53-binding prote	IPI00029778,IPI00742743	214,114.80	99.80%	2	2	2	0.01%	1.77%	SEDMPFSPK	R	A	95.00%	2.09	0.249	0	1	0	0	2	1,117.43	264	272	TRUE	
SNU216_PC3_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	99.20%	2	2	2	0.01%	5.61%	DRSSSAPNVHINTIEPVNIDDLIR	R	D	84.70%	3.14	0.145	0	0	1	0	2	2,755.34	361	384	TRUE	
SNU216_PC3_03	B-Raf proto-oncogene serine/threonine-protein ki	IPI00303797	84,438.90	99.20%	2	2	2	0.01%	5.61%	RDSSDDWEIPDGQITVGQR	R	I	95.00%	3.9	0.461	0	1	0	0	2	2,253.98	444	462	TRUE	
SNU216_PC3_03	Isoform 1 of Epsin-4	IPI00291930,IPI00397519	68,260.50	99.10%	1	1	1	0.01%	4.96%	TIDLGAAAHYTGDKASPDQNASTHTPQSSV	K	T	81.20%	4.62	0.0664	0	0	1	0	2	3,248.49	284	314	TRUE	
SNU216_PC3_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.70%	2	2	2	0.01%	1.68%	AEDSDSEPEPEDNVR	K	L	95.00%	2.01	0.275	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC3_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	99.70%	2	2	2	0.01%	1.68%	KAEDSDSEPEPEDNVR	R	L	94.00%	2.13	0.229	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216_PC3_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	99.80%	1	1	1	0.01%	6.30%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.52	0.305	0	0	1	0	2	2,509.26	177	199	TRUE	
SNU216_PC3_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	4	4	0.03%	11.00%	ALASEKSPTADAKPAPK	K	R	95.00%	3.11	0.426	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216_PC3_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	4	4	0.03%	11.00%	IPSKEEEADMSSPTQR	K	T	95.00%	4.15	0.364	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC3_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	4	4	0.03%	11.00%	LEAEEGRNSLSPVQATQKPLVSK	R	K	87.10%	3.49	0.139	0	0	1	0	2	2,641.26	127	149	TRUE	
SNU216_PC3_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	4	4	4	0.03%	11.00%	NSLSPVQATQKPLVSKK	R	E	95.00%	3.58	0.422	0	0	1	0	2	1,905.02	134	150	TRUE	
SNU216_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	AGGLDWPEATEVSPSR	R	T	95.00%	2.78	0.274	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.38	0.399	0	1	0	0	2	1,643.76	312	326	TRUE	
SNU216_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	TLQRLSSGFDDIDLPSAVK	R	Y	95.00%	4.22	0.365	0	1	1	0	2	2,142.05	308	326	TRUE	
SNU216_PC3_03	Plakophilin-3	IPI00026952	87,084.70	100.00%	4	5	5	0.03%	6.90%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	4.56	0.373	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216_PC3_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	2	2	2	0.01%	9.62%	QSNASSDVEVEEKETSVSKEDTDHEEK	K	A	95.00%	4.09	0.344	0	0	0	1	2	3,116.31	101	127	TRUE	
SNU216_PC3_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	2	2	2	0.01%	9.62%	QVETEEAGVVTTATASVNLKVSPK	K	R	83.30%	5.33	0.052	0	0	1	0	2	2,538.27	156	179	TRUE	
SNU216_PC3_03	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	ADAASSLTVDVTPPTAK	K	A	95.00%	3.68	0.105	0	1	0	0	2	1,723.82	403	419	TRUE	
SNU216_PC3_03	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	100.00%	2	3	3	0.02%	9.07%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.12	0.523	0	1	1	0	2	2,394.07	428	451	TRUE	
SNU216_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	7	0.05%	5.81%	AKTQTPPVSPAPQPTEER	K	L	95.00%	3.66	0.461	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	7	0.05%	5.81%	AKTQTPPVSPAPQPTEERLPSSPVYEDAASFK	R	A	95.00%	4.02	0.533	0	0	1	1	2	3,505.69	360	391	TRUE	
SNU216_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	7	0.05%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.36	0.511	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	7	0.05%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.2	0.405	0	1	0	0	2	1,894.80	362	377	TRUE	
SNU216_PC3_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	7	0.05%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	3.73	0.348	0	0	1	0	2	3,306.56	362	391	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	CDA02	IPI00012462	67,852.50	100.00%	1	2	2	0.01%	2.96%	SDKSPDLAPTPAPQSTPR	R	N	95.00%	3.47	0.408	0	1	1	0	2	1,944.91	527	544	TRUE	
SNU216_PC3_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	100.00%	2	2	2	0.01%	3.78%	RSSPSARPPDVPGQQPQAAK	R	S	95.00%	4.39	0.382	0	0	1	0	2	2,154.05	81	100	TRUE	
SNU216_PC3_03	Isoform 2 of Zinc finger protein 91 homolog	IPI00172474,IPI00477661	63,445.30	100.00%	2	2	2	0.01%	3.78%	SSPSARPPDVPGQQPQAAK	R	S	95.00%	2.98	0.204	0	0	1	0	2	1,997.94	82	100	TRUE	
SNU216_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	13	0.09%	19.80%	IVEPEVVGESDSEVEGDAWR	K	M	95.00%	4.31	0.38	0	2	0	0	2	2,281.99	107	126	TRUE	
SNU216_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	13	0.09%	19.80%	KIVEPEVVGESDSEVEGDAWR	R	M	95.00%	4.34	0.544	0	1	1	0	2	2,490.05	106	126	TRUE	
SNU216_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	13	0.09%	19.80%	MEREDSSEEEEEEIDDEEIER	R	R	95.00%	4.27	0.557	0	1	2	0	2	2,786.98	127	147	TRUE	
SNU216_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	13	0.09%	19.80%	RPDYAPMESSDEEDEEFQFIK	K	K	95.00%	3.43	0.456	0	0	1	0	2	2,642.06	44	64	TRUE	
SNU216_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	13	0.09%	19.80%	RPDYAPMESSDEEDEEFQFIKK	K	A	95.00%	4.47	0.433	0	0	3	0	2	2,850.13	44	65	TRUE	
SNU216_PC3_03	Microfibrillar-associated protein 1	IPI00022790	51,855.40	100.00%	6	9	13	0.09%	19.80%	SLAALDALNTDDENDEEEYEAWK	R	V	95.00%	6.25	0.586	0	1	1	0	2	2,721.11	258	280	TRUE	
SNU216_PC3_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.80%	1	1	1	0.01%	1.12%	KMEESDEEAVQAK	R	V	95.00%	3.02	0.345	0	1	0	0	2	1,573.65	688	700	TRUE	
SNU216_PC3_03	Chromodomain Y-like protein	IPI00293963,IPI00480205,IP	66,482.20	99.80%	1	1	1	0.01%	1.51%	ILVPKSPVK	K	S	95.00%	1.76	0.369	0	1	0	0	2	1,060.62	196	204	TRUE	
SNU216_PC3_03	Protein AATF	IPI00302238	63,293.10	99.80%	1	2	2	0.01%	3.38%	AGDRNSEDDGVVMTFSSVK	R	V	95.00%	3.5	0.47	0	1	1	0	2	2,093.88	198	216	TRUE	
SNU216_PC3_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	99.60%	2	2	2	0.01%	3.67%	DQSPPPSPPPSYHPPPPPTK	K	K	92.60%	2.96	0.167	0	0	1	0	2	2,279.98	667	686	TRUE	
SNU216_PC3_03	hypothetical protein LOC57648	IPI00001632,IPI00645725	107,095.10	99.60%	2	2	2	0.01%	3.67%	KLQLERPVSPETQADLQR	R	N	95.00%	3.61	0.417	0	0	1	0	2	2,188.11	921	938	TRUE	
SNU216_PC3_03	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	2	2	0.01%	6.27%	SQGSGNEAEPLGK	K	G	95.00%	2.77	0.356	0	1	0	0	2	1,353.57	452	464	TRUE	
SNU216_PC3_03	Hypothetical protein DKFZp564A2416	IPI00023532	61,728.40	100.00%	2	2	2	0.01%	6.27%	TSPVKSNTPAAHLEIKPDELAK	K	K	95.00%	4.02	0.461	0	0	0	1	2	2,426.23	194	215	TRUE	
SNU216_PC3_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.54%	ARQPLSEASNQQPLSGGEEK	R	S	95.00%	3.77	0.208	0	0	1	0	2	2,206.01	40	59	TRUE	
SNU216_PC3_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.54%	ATSPVKSTTSITDAK	K	S	95.00%	2.96	0.499	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC3_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	100.00%	3	3	3	0.02%	4.54%	TPISPLKTGVSKPIVK	K	S	95.00%	3.18	0.437	0	0	1	0	2	1,745.00	320	335	TRUE	
SNU216_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	5	0.03%	6.33%	ATNESEDEIPQLVPIGK	K	K	95.00%	4.25	0.48	0	1	1	0	2	1,919.90	357	373	TRUE	
SNU216_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	5	0.03%	6.33%	ATNESEDEIPQLVPIGKK	K	T	95.00%	3.69	0.472	0	1	1	0	2	2,048.00	357	374	TRUE	
SNU216_PC3_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	3	5	5	0.03%	6.33%	KSPAKSPNPSTPR	K	G	95.00%	3.12	0.326	0	0	1	0	2	1,446.71	391	403	TRUE	
SNU216_PC3_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	1	1	2	0.01%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	4.88	0.487	0	0	2	0	2	2,051.83	68	85	TRUE	
SNU216_PC3_03	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	ETSPQVKGEEMPAGKDQEASR	K	G	95.00%	3.38	0.301	0	0	1	0	2	2,354.03	109	129	TRUE	
SNU216_PC3_03	Isoform 1 of RNA exonuclease 4	IPI00010653	46,672.30	99.80%	2	2	2	0.01%	8.29%	RAPSSPVAKPGPVK	K	T	95.00%	2.16	0.364	0	0	1	0	2	1,470.78	11	24	TRUE	
SNU216_PC3_03	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	100.00%	3	4	4	0.03%	4.99%	TPESQPDTPPGTPLVSQDEKR	R	D	95.00%	4.21	0.344	0	0	1	0	2	2,359.08	111	131	TRUE	
SNU216_PC3_03	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	100.00%	3	4	4	0.03%	4.99%	WEETRTPESQPDTPPGTPLVSQDEK	R	R	95.00%	3.44	0.253	0	0	1	0	2	2,904.29	106	130	TRUE	
SNU216_PC3_03	Bifunctional polynucleotide phosphatase/kinase	IPI00290684,IPI00644522	57,076.90	100.00%	3	4	4	0.03%	4.99%	WEETRTPESQPDTPPGTPLVSQDEKR	R	D	95.00%	4.01	0.233	0	0	1	1	2	3,060.40	106	131	TRUE	
SNU216_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	7	7	13	0.09%	17.80%	EESEESEAEPVQR	R	T	95.00%	2.64	0.287	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	7	7	13	0.09%	17.80%	EVSDSEAGGGPQGER	R	K	95.00%	3.02	0.553	0	5	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	7	7	13	0.09%	17.80%	GEESSEEEEKGYK	R	G	93.50%	1.88	0.257	0	2	0	0	2	1,660.57	156	168	TRUE	
SNU216_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	7	7	13	0.09%	17.80%	NGVAAEVSPAKEENPRR	K	A	87.10%	2.29	0.213	0	1	0	0	2	1,903.90	118	134	TRUE	
SNU216_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	7	7	13	0.09%	17.80%	QAREESEESEAEPVQR	K	T	95.00%	2.38	0.323	0	2	0	0	2	2,033.78	191	206	TRUE	
SNU216_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	7	7	13	0.09%	17.80%	SLKESEQESEEEILAQKK	K	E	95.00%	3.34	0.35	0	0	1	0	2	2,185.03	219	236	TRUE	
SNU216_PC3_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	7	7	13	0.09%	17.80%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.9	0.192	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC3_03	RNA binding motif protein 15B	IPI00175136	97,208.40	99.70%	2	2	2	0.01%	2.70%	DRTPPHLLYSDR	R	D	95.00%	2.19	0.233	0	0	1	0	2	1,549.72	530	541	TRUE	
SNU216_PC3_03	RNA binding motif protein 15B	IPI00175136	97,208.40	99.70%	2	2	2	0.01%	2.70%	TFLEGDWTSPSK	R	S	93.70%	2.1	0.214	0	1	0	0	2	1,447.61	544	555	TRUE	
SNU216_PC3_03	Histone deacetylase 1	IPI00013774	55,104.10	99.80%	1	2	6	0.04%	6.85%	MLPHAPGVQMQAIPEDAIPEESGDEDEDDI	R	I	95.00%	7.14	0.507	0	0	3	3	2	3,727.58	372	404	TRUE	
SNU216_PC3_03	EH-domain-containing protein 1	IPI00017184	60,629.10	100.00%	1	2	3	0.02%	3.37%	DKPTYDEIFYTLSPVNGK	K	I	95.00%	3.43	0.36	0	1	2	0	2	2,167.00	444	461	TRUE	
SNU216_PC3_03	Isoform 1 of Transcription intermediary factor 1-b	IPI00438229	88,549.00	100.00%	1	1	1	0.01%	1.56%	SRSGEGEVSGLMR	R	K	95.00%	2.4	0.278	0	0	1	0	2	1,444.63	471	483	TRUE	
SNU216_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	8	0.06%	8.49%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.6	0.531	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	8	0.06%	8.49%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.12	0.285	0	0	2	2	2	3,631.49	108	138	TRUE	
SNU216_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	8	0.06%	8.49%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5	0.405	0	0	1	0	2	3,172.29	107	132	TRUE	
SNU216_PC3_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	4	6	8	0.06%	8.49%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.46	0.452	0	0	0	1	2	3,787.60	107	138	TRUE	
SNU216_PC3_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	5	0.03%	7.48%	GADNDGSGSESGYTTPK	K	K	95.00%	3.74	0.482	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC3_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	5	0.03%	7.48%	NDSWGSFDLR	R	A	95.00%	2	0.389	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC3_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	5	0.03%	7.48%	NLSSDEATNPISR	K	V	95.00%	2.55	0.379	0	1	0	0	2	1,483.64	110	122	TRUE	
SNU216_PC3_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	4	4	5	0.03%	7.48%	RTSPQVLGSILK	K	S	95.00%	2.6	0.244	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC3_03	Novel protein	IPI00018098,IPI00646374	52,488.90	100.00%	1	1	4	0.03%	2.01%	SQSIEQESQEK	R	Q	95.00%	2.27	0.438	0	4	0	0	2	1,372.56	416	426	TRUE	
SNU216_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	6	0.04%	2.33%	MGQAPSQSLLPPAQDQPRSPVPSAFSDQSI	R	C	95.00%	4.57	0.322	0	0	1	0	2	3,259.52	2431	2460	TRUE	
SNU216_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	6	0.04%	2.33%	RVPSPTPAPK	K	E	94.90%	2.39	0.2	0	2	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	6	0.04%	2.33%	SPVPSAFSDQSR	R	C	95.00%	2.2	0.243	0	1	0	0	2	1,357.58	2449	2460	TRUE	
SNU216_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	6	0.04%	2.33%	SRTPPSAPSQSR	R	M	95.00%	2.34	0.352	0	1	0	0	2	1,350.62	2407	2418	TRUE	
SNU216_PC3_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	5	5	6	0.04%	2.33%	VSGRTSPPLLDR	R	A	95.00%	2.48	0.25	0	1	0	0	2	1,377.69	2393	2404	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	ASSLGEIDESSELR	R	V	95.00%	3.02	0.488	0	1	0	0	2	1,572.68	120	133	TRUE	
SNU216_PC3_03	Serine/threonine-protein kinase N2	IPI00002804,IPI00514221,IP	59,804.30	99.80%	2	2	2	0.01%	4.07%	GREDVSNFDDEFTSEAPILTPPREPR	R	I	95.00%	3.83	0.324	0	0	1	0	2	3,054.38	478	503	TRUE	
SNU216_PC3_03	Hypothetical protein LOC92345	IPI00063219	53,703.30	99.80%	2	2	2	0.01%	5.26%	GSDASWKNDQEPPPEALDFSDDEKEK	K	E	95.00%	5.15	0.295	0	0	1	0	2	3,014.26	296	321	TRUE	
SNU216_PC3_03	Hypothetical protein LOC92345	IPI00063219	53,703.30	99.80%	2	2	2	0.01%	5.26%	NDQEPPPEALDFSDDEKEK	K	E	95.00%	3.68	0.246	0	0	1	0	2	2,282.93	303	321	TRUE	
SNU216_PC3_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.04%	16.40%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.23	0.455	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216_PC3_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.04%	16.40%	QSSPSGSEQLVR	R	R	95.00%	2.52	0.456	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC3_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.04%	16.40%	RSSTSGDTEEEEEEEVVPFSSDEQKR	R	R	94.80%	7.39	0.0095	0	0	2	0	2	3,066.27	16	41	TRUE	
SNU216_PC3_03	Zinc finger protein 185	IPI00005688	49,186.50	100.00%	4	5	6	0.04%	16.40%	STGSPTQETQAPFIAK	K	R	95.00%	3	0.416	0	1	0	0	2	1,742.80	68	83	TRUE	
SNU216_PC3_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	3	3	4	0.03%	4.29%	AVTPVPTKTEEVSNLK	R	T	90.60%	2.79	0.162	0	0	1	0	2	1,792.91	524	539	TRUE	
SNU216_PC3_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	3	3	4	0.03%	4.29%	GLSASLPDLDSENWIEVK	K	K	95.00%	3.17	0.339	0	1	0	0	2	2,052.95	544	561	TRUE	
SNU216_PC3_03	Isoform 1 of La-related protein 1	IPI00185919	123,512.60	100.00%	3	3	4	0.03%	4.29%	SLPTTVPESPNYR	R	N	95.00%	2.48	0.382	0	2	0	0	2	1,540.70	766	778	TRUE	
SNU216_PC3_03	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	100.00%	1	2	5	0.03%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.84	0.483	1	4	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC3_03	Lupus La protein	IPI00009032	46,839.00	100.00%	3	6	15	0.10%	5.64%	FASDDEHDEHDENGATGPVK	K	R	95.00%	3.41	0.36	0	0	2	0	2	2,249.86	364	383	TRUE	
SNU216_PC3_03	Lupus La protein	IPI00009032	46,839.00	100.00%	3	6	15	0.10%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.85	0.475	0	2	2	2	2	2,405.96	364	384	TRUE	
SNU216_PC3_03	Lupus La protein	IPI00009032	46,839.00	100.00%	3	6	15	0.10%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.62	0.458	0	0	2	5	2	2,635.11	362	384	TRUE	
SNU216_PC3_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	AEEKSPISINVK	K	T	95.00%	2.55	0.215	0	1	0	0	2	1,394.69	121	132	TRUE	
SNU216_PC3_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	EVKAEEKSPISINVK	K	T	95.00%	3.11	0.513	0	0	1	0	2	1,750.90	118	132	TRUE	
SNU216_PC3_03	Isoform 2 of Cyclin-L1	IPI00025330,IPI00654682,IP	34,689.50	100.00%	3	3	3	0.02%	12.80%	GLNPDGTPALSTLGGFSPASKPSSPR	K	E	95.00%	4.08	0.442	0	0	1	0	2	2,591.25	92	117	TRUE	
SNU216_PC3_03	Isoform 2 of N-acetylserotonin O-methyltransfera	IPI00249080,IPI00479385,IP	69,791.70	99.80%	2	2	2	0.01%	4.79%	HDSIPAADTFEDLSDVEGGGSEPTQR	K	D	95.00%	5.07	0.431	0	0	1	0	2	2,810.18	227	252	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	Isoform 2 of N-acetylserotonin O-methyltransfera	IPI00249080,IPI00479385,IP	69,791.70	99.80%	2	2	2	0.01%	4.79%	SVKHDSIPAADTFEDLSDVEGGGSEPTQR	R	D	95.00%	5	0.493	0	0	1	0	2	3,124.37	224	252	TRUE	
SNU216_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	13.30%	DTSATSQSVNGSPQAEQPSLESTSK	K	E	95.00%	4.16	0.0688	0	1	0	0	2	2,616.13	51	75	TRUE	
SNU216_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	13.30%	SMGTGDTPGLEVPSSPLR	R	K	95.00%	3.5	0.405	0	1	0	0	2	1,880.85	381	398	TRUE	
SNU216_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	13.30%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.74	0.58	0	1	1	0	2	2,008.94	381	399	TRUE	
SNU216_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	13.30%	SQDATFSPGSEQAEK	R	S	95.00%	3.25	0.283	0	1	0	0	2	1,661.67	329	343	TRUE	
SNU216_PC3_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	5	6	6	0.04%	13.30%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	5.15	0.403	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC3_03	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	99.60%	2	3	3	0.02%	5.75%	ETPRPEGGSPSPAGTPPQPK	R	R	95.00%	3.94	0.411	0	1	1	0	2	2,066.95	476	495	TRUE	
SNU216_PC3_03	Isoform 1 of Junctophilin-2	IPI00176532	74,222.80	99.60%	2	3	3	0.02%	5.75%	GAGAAGLPQPPRESPQLHER	R	E	91.70%	2.78	0.177	0	0	1	0	2	2,148.03	456	475	TRUE	
SNU216_PC3_03	protein kinase, AMP-activated, alpha 1 catalytic su	IPI00011891,IPI00410287	65,524.40	99.90%	2	3	3	0.02%	7.69%	DFYLATSPPDSFLDDHHLTRPHPER	K	V	95.00%	2.82	0.35	0	0	1	1	2	3,043.37	365	389	TRUE	
SNU216_PC3_03	protein kinase, AMP-activated, alpha 1 catalytic su	IPI00011891,IPI00410287	65,524.40	99.90%	2	3	3	0.02%	7.69%	SIDDEITEAKSGTATPQR	R	S	95.00%	3.33	0.357	0	1	0	0	2	1,998.90	491	508	TRUE	
SNU216_PC3_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	2	2	0.01%	13.30%	PVSSAASVYAGAGGSGSR	R	I	95.00%	2.73	0.403	0	1	0	0	2	1,660.73	28	45	TRUE	
SNU216_PC3_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	2	2	0.01%	13.30%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	88.40%	6.57	0.0116	0	0	0	1	2	3,993.83	51	90	TRUE	
SNU216_PC3_03	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	10	0.07%	7.42%	GNKSPSPPDGSPAATPEIR	K	V	95.00%	3.87	0.487	0	3	2	0	2	1,957.90	293	311	TRUE	
SNU216_PC3_03	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	10	0.07%	7.42%	SPSPPDGSPAATPEIR	K	V	95.00%	2.43	0.51	0	4	0	0	2	1,658.74	296	311	TRUE	
SNU216_PC3_03	Isoform IIA of Myc box-dependent-interacting pro	IPI00186966,IPI00220587,IP	64,699.10	100.00%	3	4	10	0.07%	7.42%	VNHEPEPAGGATPGATLPKSPSQLR	R	K	95.00%	5.57	0.541	0	0	1	0	2	2,591.26	312	336	TRUE	
SNU216_PC3_03	CDNA FLJ16400 fis, clone TUTER2000057, moderat	IPI00442167	26,167.70	99.80%	2	2	2	0.01%	14.60%	RGSLEMSSDGEPLSR	R	M	95.00%	3.64	0.168	0	0	1	0	2	1,700.73	204	218	TRUE	
SNU216_PC3_03	CDNA FLJ16400 fis, clone TUTER2000057, moderat	IPI00442167	26,167.70	99.80%	2	2	2	0.01%	14.60%	SLSPGAASSSSGDGDGKEGLEEPK	R	G	95.00%	3.15	0.277	0	0	1	0	2	2,342.00	139	162	TRUE	
SNU216_PC3_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	1	2	4	0.03%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.91	0.514	0	1	3	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC3_03	Endoplasmin precursor	IPI00027230	92,471.70	100.00%	1	1	1	0.01%	2.37%	EESDDEAAVEEEEEEKKPK	K	T	95.00%	4.12	0.432	0	0	1	0	2	2,299.93	304	322	TRUE	
SNU216_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	5	0.03%	8.08%	DIEISTEEEKDTGDLK	R	D	95.00%	2.61	0.304	0	1	0	0	2	1,981.79	333	348	TRUE	
SNU216_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	5	0.03%	8.08%	KRSSSEDAESLAPR	R	S	95.00%	4.11	0.429	0	1	1	0	2	1,612.73	296	309	TRUE	
SNU216_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	5	0.03%	8.08%	SRPTSEGSDIESTEPQK	R	Q	89.20%	3.05	0.0836	0	1	0	0	2	1,927.83	254	270	TRUE	
SNU216_PC3_03	HDCMA18P protein	IPI00294742	66,900.60	100.00%	4	5	5	0.03%	8.08%	SSSEDAESLAPR	R	S	95.00%	3.11	0.322	0	1	0	0	2	1,328.54	298	309	TRUE	
SNU216_PC3_03	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.60%	2	2	2	0.01%	5.65%	AGGSPASYHGSTSPR	K	V	92.50%	1.83	0.287	0	1	0	0	2	1,591.59	189	203	TRUE	
SNU216_PC3_03	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.60%	2	2	2	0.01%	5.65%	GSSQPNLSTSHSEQEYGK	R	A	95.00%	2.78	0.29	0	0	1	0	2	2,015.83	171	188	TRUE	
SNU216_PC3_03	Something about silencing protein 10	IPI00006900	54,559.20	99.80%	1	1	1	0.01%	7.52%	AGPTLTDENGDDLGLPPSPGDTSYYQDQVI	K	S	95.00%	6.45	0.155	0	0	0	1	2	3,972.67	20	55	TRUE	
SNU216_PC3_03	nuclear factor, interleukin 3 regulated	IPI00290562	51,471.70	99.80%	2	2	2	0.01%	4.98%	SSDGEDEQQVPK	K	G	95.00%	2.18	0.243	0	1	0	0	2	1,398.54	285	296	TRUE	
SNU216_PC3_03	nuclear factor, interleukin 3 regulated	IPI00290562	51,471.70	99.80%	2	2	2	0.01%	4.98%	TSETDDGVVGKSSDGEDEQQVPK	R	G	95.00%	3.45	0.359	0	0	1	0	2	2,487.04	274	296	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	AEGEPQEESPLKSK	K	S	95.00%	2.48	0.299	0	1	0	0	2	1,608.72	169	182	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	ETQSPEQVKSEK	K	L	95.00%	1.93	0.264	0	1	0	0	2	1,469.65	493	504	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	FNDSEGDDTEETEDYR	K	Q	95.00%	4.13	0.556	0	1	0	0	2	2,001.69	394	409	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	GRAEGEWEDQEALDYFSDKESGK	K	Q	95.00%	6.46	0.463	0	0	1	1	2	2,726.13	369	391	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	KAEGEPQEESPLK	K	S	95.00%	3.79	0.416	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	KAEGEPQEESPLKSK	K	S	95.00%	5.06	0.461	0	4	6	0	2	1,736.81	168	182	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	LKDLFDYSPPLHK	K	N	95.00%	2.83	0.313	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	4.94	0.51	0	1	1	0	2	2,257.84	392	409	TRUE	
SNU216_PC3_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	9	12	20	0.14%	11.20%	SKSQEEPKDTFEHDPSESIDEFNK	K	S	95.00%	3.22	0.26	0	0	0	1	2	2,903.23	181	204	TRUE	
SNU216_PC3_03	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	3	3	3	0.02%	8.45%	EESLVEELSPASEK	R	K	95.00%	2.8	0.321	0	1	0	0	2	1,626.71	418	431	TRUE	
SNU216_PC3_03	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	3	3	3	0.02%	8.45%	EESLVEELSPASEKKPVPPSEGK	R	S	95.00%	3.19	0.265	0	0	1	0	2	2,546.23	418	440	TRUE	
SNU216_PC3_03	Isoform 2 of Bcl-2-like 13 protein	IPI00011635	52,723.20	100.00%	3	3	3	0.02%	8.45%	SRLSPAGEMKPMPLSEGK	K	S	95.00%	3.39	0.345	0	0	1	0	2	1,994.94	441	458	TRUE	
SNU216_PC3_03	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	2	2	2	0.01%	8.23%	AETSEGSGSAPAVPEASASPK	K	Q	95.00%	4.7	0.585	0	1	0	0	2	2,009.87	74	94	TRUE	
SNU216_PC3_03	Methyl-CpG-binding protein 2	IPI00418234,IPI00645192	53,323.80	100.00%	2	2	2	0.01%	8.23%	HEPVQPSAHHSAEPAEAGKAETSEGSGSAP	K	Q	95.00%	6.15	0.522	0	0	0	1	2	3,969.79	55	94	TRUE	
SNU216_PC3_03	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	2	2	2	0.01%	7.23%	KEPDDSRDEDEDEDESSEEDSEDEEPPPK	K	R	95.00%	3.52	0.429	0	0	1	0	2	3,618.19	426	454	TRUE	
SNU216_PC3_03	HP1-BP74	IPI00296291,IPI00642238,IP	61,363.10	100.00%	2	2	2	0.01%	7.23%	QTPMASSPRPK	K	M	95.00%	2.42	0.256	0	0	1	0	2	1,279.59	150	160	TRUE	
SNU216_PC3_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	2	2	0.01%	6.03%	KAEQGSEEEGEGEEEEEEEGGESKADDPYAHI	K	K	95.00%	5.28	0.471	0	0	0	1	2	3,659.47	224	256	TRUE	
SNU216_PC3_03	ATP-binding cassette, sub-family F (GCN20), mem	IPI00642673	96,056.30	99.80%	2	2	2	0.01%	6.03%	LSVPTSDEEDEVPAPKPR	K	G	95.00%	3.14	0.351	0	0	1	0	2	2,045.94	105	122	TRUE	
SNU216_PC3_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	3	3	0.02%	3.86%	SKPIPIMPASPQK	K	G	95.00%	3.15	0.355	0	1	0	0	2	1,473.75	596	608	TRUE	
SNU216_PC3_03	Dynamin-like protein DYNIV-11 variant	IPI00746976	80,537.60	99.80%	2	3	3	0.02%	3.86%	SKPIPIMPASPQKGHAVNLLDVPVPVAR	K	K	95.00%	5.11	0.619	0	0	1	1	2	3,011.63	596	623	TRUE	
SNU216_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	6.82%	LSPSPTSQR	R	S	80.80%	1.65	0.249	0	1	0	0	2	1,052.48	389	397	TRUE	
SNU216_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	6.82%	NKSNEDQSMGNWQIK	R	R	95.00%	3.41	0.377	0	1	0	0	2	1,858.78	456	470	TRUE	
SNU216_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	6.82%	NKSNEDQSMGNWQIKR	R	Q	95.00%	4.79	0.541	0	0	1	0	2	2,014.88	456	471	TRUE	
SNU216_PC3_03	Isoform C of Lamin-A/C	IPI00216952	65,136.10	100.00%	4	4	4	0.03%	6.82%	SGAQASSTPLSPTR	R	I	91.40%	3.2	0.0692	0	1	0	0	2	1,439.65	12	25	TRUE	
SNU216_PC3_03	Cleavage stimulation factor, 77 kDa subunit	IPI00015195	82,924.20	99.80%	1	2	2	0.01%	3.35%	RPNEDSDEDEEKGAVVPPVHDIYR	K	A	95.00%	4.61	0.469	0	0	1	1	2	2,846.26	686	709	TRUE	
SNU216_PC3_03	phosphoglucomutase 1	IPI00219526	61,451.10	100.00%	1	2	3	0.02%	4.09%	AIGGIILTASHNPGGPNGDFGIK	K	F	95.00%	3.7	0.424	0	1	2	0	2	2,286.13	108	130	TRUE	
SNU216_PC3_03	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,230.30	99.20%	2	3	3	0.02%	6.22%	RRTSDPSAAVNHVSSTTSLGENYEDDDLVN	R	K	84.70%	6.7	0.0009	0	0	0	1	2	4,018.76	21	56	TRUE	
SNU216_PC3_03	Hypothetical protein ARL6IP2	IPI00007183,IPI00169267	66,230.30	99.20%	2	3	3	0.02%	6.22%	RTSDPSAAVNHVSSTTSLGENYEDDDLVNS	R	K	94.80%	8.1	0.0041	0	0	1	1	2	3,862.66	22	56	TRUE	
SNU216_PC3_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.86	0.378	0	1	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC3_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	3	3	0.02%	0.88%	SSSVGSSSSYPISPAVSR	R	T	89.20%	3.65	0.042	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC3_03	Isoform Long of Double-stranded RNA-binding pr	IPI00000001,IPI00218609,IP	54,934.70	100.00%	1	1	1	0.01%	3.99%	KVTFFEPGSGDENGTSNKEDEFR	R	M	95.00%	3.3	0.299	0	0	1	0	2	2,670.14	301	323	TRUE	
SNU216_PC3_03	PDZ and LIM domain protein 5	IPI00007935	63,839.90	99.80%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	2.9	0.299	0	0	1	0	2	1,630.88	101	115	TRUE	
SNU216_PC3_03	DGCR14 protein	IPI00165171	52,568.80	98.70%	1	1	1	0.01%	1.89%	ELIPQESPR	K	V	95.00%	2.33	0.201	0	1	0	0	2	1,148.53	286	294	TRUE	
SNU216_PC3_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	ALMGSPQLVAAVVR	R	T	95.00%	2.62	0.436	0	0	1	0	2	1,491.78	177	190	TRUE	
SNU216_PC3_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	KRVSVELTNSLFK	R	H	95.00%	2.99	0.346	0	1	0	0	2	1,600.85	660	672	TRUE	
SNU216_PC3_03	Junction plakoglobin	IPI00554711	81,499.50	100.00%	3	4	4	0.03%	3.63%	RVSVELTNSLFK	K	H	95.00%	3.17	0.327	0	1	1	0	2	1,472.75	661	672	TRUE	
SNU216_PC3_03	REST corepressor 1	IPI00008531	53,028.00	100.00%	3	4	5	0.03%	10.80%	EREESEDELEEANGNNPIDIEVDQNK	R	E	95.00%	4.97	0.476	0	0	2	0	2	3,095.30	253	278	TRUE	
SNU216_PC3_03	REST corepressor 1	IPI00008531	53,028.00	100.00%	3	4	5	0.03%	10.80%	EREESEDELEEANGNNPIDIEVDQNKESK	R	K	95.00%	6.77	0.463	0	0	1	1	2	3,439.47	253	281	TRUE	
SNU216_PC3_03	REST corepressor 1	IPI00008531	53,028.00	100.00%	3	4	5	0.03%	10.80%	RSQERDNLGMLVWSPNQNLSEAK	R	L	95.00%	4.49	0.366	0	0	1	0	2	2,752.29	123	145	TRUE	
SNU216_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	5	0.03%	8.16%	KPGPPLSPEIRSPAGSPELR	R	K	95.00%	2.53	0.229	0	0	1	0	2	2,325.04	421	440	TRUE	
SNU216_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	5	0.03%	8.16%	KPSPSESPEPWKPFPAVSPEPR	R	R	95.00%	4.99	0.517	0	0	2	0	2	2,526.21	280	301	TRUE	
SNU216_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	5	0.03%	8.16%	KTSPASLDFPESQK	R	S	95.00%	3.75	0.408	0	1	0	0	2	1,614.74	457	470	TRUE	
SNU216_PC3_03	KIAA1802 protein (Fragment)	IPI00064212,IPI00414497	89,100.90	100.00%	4	4	5	0.03%	8.16%	TAPTLSPEHWK	K	A	95.00%	2.33	0.3	0	1	0	0	2	1,346.61	400	410	TRUE	
SNU216_PC3_03	Goodpasture antigen-binding protein	IPI00657692	83,707.90	99.80%	1	1	1	0.01%	2.39%	SSSMSSIDLVSASDDVHR	R	F	95.00%	4.36	0.0368	0	1	0	0	2	1,972.83	503	520	TRUE	
SNU216_PC3_03	Isoform 1 of Phosphoacetylglucosamine mutase	IPI00030116	59,852.40	99.80%	1	1	1	0.01%	3.69%	STIGVMVTASHNPEEDNGVK	K	L	95.00%	3.82	0.376	0	1	0	0	2	2,164.96	55	74	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	Sec1 family domain-containing protein 1	IPI00165261	72,251.10	100.00%	1	2	2	0.01%	2.96%	VNLEESSGVENSPAGARPK	R	R	95.00%	3.93	0.313	0	1	1	0	2	2,020.93	291	309	TRUE	
SNU216_PC3_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	2	2	2	0.01%	3.78%	LPEASQSPLVLK	R	Q	95.00%	2.81	0.249	0	1	0	0	2	1,361.71	516	527	TRUE	
SNU216_PC3_03	Isoform Long of Metastasis-associated protein M	IPI00012773	80,790.50	100.00%	2	2	2	0.01%	3.78%	VAPVINNGSPTILGK	K	R	95.00%	2.52	0.349	0	1	0	0	2	1,559.82	568	582	TRUE	
SNU216_PC3_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.90%	2	3	3	0.02%	5.36%	GLNTSQESDDDILDESSSPEGTQK	R	V	95.00%	4.63	0.509	0	1	1	0	2	2,632.08	223	246	TRUE	
SNU216_PC3_03	Isoform 1 of Rho guanine nucleotide exchange fa	IPI00550506	80,106.40	99.90%	2	3	3	0.02%	5.36%	SSSVPHPFQVTLLR	R	N	95.00%	2.59	0.388	0	0	1	0	2	1,647.83	576	589	TRUE	
SNU216_PC3_03	PREDICTED: similar to Forkhead box protein K1 (I	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	4	0.03%	10.00%	EGSPIPHDPEFGSK	R	L	95.00%	2.65	0.426	0	1	1	0	2	1,576.67	280	293	TRUE	
SNU216_PC3_03	PREDICTED: similar to Forkhead box protein K1 (I	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	4	0.03%	10.00%	IQFTSLYHKEEAPASPLRPLYPQISPLK	K	I	84.80%	3.46	0.129	0	0	1	0	2	3,383.68	36	63	TRUE	
SNU216_PC3_03	PREDICTED: similar to Forkhead box protein K1 (I	IPI00549473,IPI00556645	59,700.80	100.00%	3	4	4	0.03%	10.00%	SAPASPTHPGLMSPR	R	S	95.00%	2.55	0.382	0	1	0	0	2	1,585.72	253	267	TRUE	
SNU216_PC3_03	fragile X mental retardation-related protein 1 isof	IPI00554715	60,791.90	100.00%	1	1	2	0.01%	4.64%	RGPNYTSGYGTNSELSNPSETESER	R	K	95.00%	6.33	0.0813	0	0	2	0	2	2,812.17	391	415	TRUE	
SNU216_PC3_03	Hypothetical protein 101F10.1	IPI00554560,IPI00746731	51,590.30	99.40%	2	3	3	0.02%	4.15%	KSPLAMSHASGVKTSPDPR	K	Q	88.70%	2.93	0.206	0	0	1	0	2	2,045.98	118	136	TRUE	
SNU216_PC3_03	Hypothetical protein 101F10.1	IPI00554560,IPI00746731	51,590.30	99.40%	2	3	3	0.02%	4.15%	SPLAMSHASGVKTSPDPR	K	Q	95.00%	4.69	0.322	0	1	1	0	2	1,917.89	119	136	TRUE	
SNU216_PC3_03	HSPC121	IPI00008998	44,424.70	100.00%	2	2	3	0.02%	6.17%	RPLFLAPDFDRWLDESDAEMELR	K	A	95.00%	3.21	0.427	0	0	1	0	2	2,901.33	99	121	TRUE	
SNU216_PC3_03	HSPC121	IPI00008998	44,424.70	100.00%	2	2	3	0.02%	6.17%	WLDESDAEMELR	R	A	95.00%	2.26	0.308	0	2	0	0	2	1,573.62	110	121	TRUE	
SNU216_PC3_03	Eukaryotic translation initiation factor 4B	IPI00012079	69,226.80	99.90%	1	1	1	0.01%	2.62%	TGSESSQTGTSTTSSR	R	N	92.30%	1.79	0.305	0	1	0	0	2	1,653.66	420	435	TRUE	
SNU216_PC3_03	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	3	4	0.03%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYK	R	E	95.00%	3.39	0.381	0	0	1	0	2	2,743.07	430	453	TRUE	
SNU216_PC3_03	resistance to inhibitors of cholinesterase 8 homol	IPI00100106	60,372.80	100.00%	2	3	4	0.03%	5.03%	GLMAGGRPEGQYSEDEDTDTDEYKEAK	R	A	95.00%	5.41	0.451	0	0	1	2	2	3,071.25	430	456	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	AATSGVPSIYAPSTYAHLSPAK	K	T	95.00%	3.98	0.267	0	0	1	0	2	2,269.09	295	316	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	AMSEVTSLHEDDWR	R	S	95.00%	3.2	0.433	0	2	0	0	2	1,755.70	411	424	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.37	0.617	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	GPALTPIRDEEWGGHSPRSPR	R	G	95.00%	3.09	0.416	0	0	1	0	2	2,395.13	430	450	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	SRDDLYDQDDSR	R	D	84.60%	1.84	0.22	0	1	0	0	2	1,564.59	511	522	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	SRDDLYDQDDSRDFPR	R	S	95.00%	2.75	0.182	0	1	0	0	2	2,079.84	511	526	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	SRSRDDLYDQDDSR	R	D	95.00%	3.28	0.407	0	1	0	0	2	1,807.72	509	522	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	SSSAGGQGSYVPLLR	R	D	95.00%	2.37	0.245	0	1	0	0	2	1,558.73	344	358	TRUE	
SNU216_PC3_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	9	10	11	0.08%	17.10%	SVDALDDLTPPSTAESGSR	R	S	95.00%	2.85	0.182	0	1	0	0	2	1,997.87	474	492	TRUE	
SNU216_PC3_03	Protein LYRIC	IPI00328715	63,838.40	100.00%	1	2	2	0.01%	3.09%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	4.55	0.512	0	1	1	0	2	2,152.93	415	432	TRUE	
SNU216_PC3_03	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	100.00%	1	2	4	0.03%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	3.49	0.496	0	2	2	0	2	1,586.78	68	81	TRUE	
SNU216_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	3	5	0.03%	9.09%	GNSRPGTPSAEGGSTSSTLR	R	A	95.00%	3.96	0.577	0	0	3	0	2	1,998.89	383	402	TRUE	
SNU216_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	3	5	0.03%	9.09%	IHDLEDDLEMSSDASDASGEEGGR	R	V	95.00%	4.35	0.482	0	0	1	0	2	2,615.01	207	230	TRUE	
SNU216_PC3_03	Transcription initiation factor IIF alpha subunit	IPI00017450	58,241.90	100.00%	3	3	5	0.03%	9.09%	IHDLEDDLEMSSDASDASGEEGGRVPK	R	A	95.00%	5.19	0.589	0	0	1	0	2	2,939.23	207	233	TRUE	
SNU216_PC3_03	Protein C14orf4	IPI00019205	82,658.10	98.60%	1	2	2	0.01%	1.88%	KASPEPPDSAEGALK	R	L	95.00%	3.55	0.462	0	1	1	0	2	1,576.73	545	559	TRUE	
SNU216_PC3_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	4	4	0.03%	12.70%	AAIPPPVYEEQDRPRSPTGPSNSFLANMGG	K	I	95.00%	3.67	0.18	0	0	0	1	2	3,771.80	114	148	TRUE	
SNU216_PC3_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	4	4	0.03%	12.70%	RPDPDSDEDEDYER	R	E	95.00%	3.84	0.527	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC3_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	4	4	0.03%	12.70%	RPDPDSDEDEDYERER	R	R	95.00%	2.28	0.331	0	0	1	0	2	2,102.79	57	72	TRUE	
SNU216_PC3_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	100.00%	4	4	4	0.03%	12.70%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	3.16	0.486	0	0	1	0	2	2,052.92	129	148	TRUE	
SNU216_PC3_03	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	56,976.70	100.00%	1	1	1	0.01%	2.39%	WTKPSSFSDSER	R	-	95.00%	2.39	0.319	0	1	0	0	2	1,506.63	492	503	TRUE	
SNU216_PC3_03	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	100.00%	3	4	4	0.03%	5.94%	NSFTPLSSSNTIR	R	R	83.70%	2.03	0.189	0	1	0	0	2	1,503.68	465	477	TRUE	
SNU216_PC3_03	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	100.00%	3	4	4	0.03%	5.94%	NYSVGSRPLKPLSPLR	R	A	95.00%	2.5	0.283	0	0	1	0	2	1,863.98	481	496	TRUE	
SNU216_PC3_03	Isoform 1 of 6-phosphofructo-2-kinase/fructose-2	IPI00305589	58,478.00	100.00%	3	4	4	0.03%	5.94%	RNSFTPLSSSNTIR	R	R	95.00%	2.82	0.271	0	1	1	0	2	1,659.79	464	477	TRUE	
SNU216_PC3_03	MGRN1 protein	IPI00297251,IPI00643212	60,754.10	99.40%	1	1	1	0.01%	2.26%	SPSSPIHEEDEEK	R	L	87.80%	2.05	0.236	0	1	0	0	2	1,563.62	457	469	TRUE	
SNU216_PC3_03	Lamin-B1	IPI00217975	66,278.40	100.00%	3	3	3	0.02%	8.55%	AGGPTTPLSPTR	R	L	95.00%	2.02	0.357	0	1	0	0	2	1,314.55	14	25	TRUE	
SNU216_PC3_03	Lamin-B1	IPI00217975	66,278.40	100.00%	3	3	3	0.02%	8.55%	LSPSPSSR	K	V	95.00%	1.49	0.366	0	1	0	0	2	910.403	389	396	TRUE	IPI00009771
SNU216_PC3_03	Lamin-B1	IPI00217975	66,278.40	100.00%	3	3	3	0.02%	8.55%	TTIPEEEEEEEEAAGVVVEEELFHQQGTPR	K	A	95.00%	4.72	0.388	0	0	1	0	2	3,491.54	547	576	TRUE	
SNU216_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	6	8	12	0.08%	12.40%	DSHSSEEDEASSQTDLSQTISK	R	K	95.00%	5.75	0.0565	0	1	0	0	2	2,540.96	240	261	TRUE	
SNU216_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	6	8	12	0.08%	12.40%	GLRDSHSSEEDEASSQTDLSQTISK	R	K	92.70%	4.69	0.089	0	0	1	0	2	2,867.16	237	261	TRUE	
SNU216_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	6	8	12	0.08%	12.40%	GLRDSHSSEEDEASSQTDLSQTISKK	R	T	95.00%	3.66	0.164	0	0	1	0	2	3,075.22	237	262	TRUE	
SNU216_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	6	8	12	0.08%	12.40%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	5.15	0.521	0	1	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	6	8	12	0.08%	12.40%	SELGNQSPSTSSR	K	Q	92.00%	3.28	0.055	0	1	0	0	2	1,429.60	397	409	TRUE	
SNU216_PC3_03	76 kDa protein	IPI00743778	75,757.70	100.00%	6	8	12	0.08%	12.40%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	6.57	0.574	0	1	5	0	2	2,836.13	300	324	TRUE	
SNU216_PC3_03	Isoform 1 of Choline transporter-like protein 2	IPI00549521	80,155.90	99.80%	1	2	2	0.01%	1.70%	HGTPQKYDPTFK	K	G	95.00%	2.31	0.329	0	1	1	0	2	1,498.67	12	23	TRUE	
SNU216_PC3_03	Metastasis-associated protein MTA2	IPI00171798	75,025.10	100.00%	1	1	1	0.01%	2.99%	GHLSRPEAQSLSPYTTSANR	R	A	95.00%	4.44	0.119	0	0	1	0	2	2,252.05	424	443	TRUE	
SNU216_PC3_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.80%	2	2	2	0.01%	0.88%	ARVDHGAEIITQSPGR	K	S	95.00%	3.83	0.307	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216_PC3_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.80%	2	2	2	0.01%	0.88%	VDHGAEIITQSPGR	R	S	95.00%	3.42	0.478	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC3_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	5	0.03%	11.30%	EVDPSTGELQSLQMPESEGPSSLDPSQEGP	K	E	91.40%	6.05	0.061	0	0	1	0	2	3,622.60	347	380	TRUE	
SNU216_PC3_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	5	0.03%	11.30%	LTPVSPESSSTEEK	R	S	94.40%	2.32	0.198	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216_PC3_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	100.00%	3	3	5	0.03%	11.30%	SRLTPVSPESSSTEEK	R	S	95.00%	3.76	0.181	0	3	0	0	2	1,813.82	266	281	TRUE	
SNU216_PC3_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	98.60%	2	2	2	0.01%	3.46%	VGVEASEETPQTSSSSARPGTPSDHQSQEA	R	K	86.50%	5.4	0.0457	0	0	0	1	2	3,783.64	362	396	TRUE	
SNU216_PC3_03	Grb10 interacting GYF protein 2	IPI00169434	150,270.50	98.60%	2	2	2	0.01%	3.46%	WRPHSPDGPR	R	S	89.80%	2.03	0.208	0	1	0	0	2	1,284.56	232	241	TRUE	
SNU216_PC3_03	Torsin-1A-interacting protein 2	IPI00168878	51,263.10	100.00%	1	1	1	0.01%	5.96%	GHHLPSENLGKEPLDPDPSHSPSDKVGR	K	A	95.00%	5.41	0.166	0	0	0	1	2	3,082.44	100	127	TRUE	
SNU216_PC3_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	2	2	2	0.01%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.42	0.434	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216_PC3_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	2	2	2	0.01%	15.20%	NYQQNYQNSESGEKNEGSESAPEGQAQQ	R	R	87.50%	5.25	0.0536	0	0	1	0	2	3,337.36	156	184	TRUE	
SNU216_PC3_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	3	3	6	0.04%	8.86%	KADGEDAGAESNEEAPGEPSAGSSEEAPGE	R	S	95.00%	5.61	0.122	0	0	1	0	2	4,208.68	93	135	TRUE	
SNU216_PC3_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	3	3	6	0.04%	8.86%	RVNDAEPGSPEAPQGK	R	R	95.00%	2.91	0.404	0	4	0	0	2	1,731.77	75	90	TRUE	
SNU216_PC3_03	ATP-dependent RNA helicase DDX51	IPI00217541	72,485.50	100.00%	3	3	6	0.04%	8.86%	VNDAEPGSPEAPQGK	R	R	95.00%	2.81	0.438	0	1	0	0	2	1,575.67	76	90	TRUE	
SNU216_PC3_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	99.80%	2	3	5	0.03%	4.38%	VAAAAGSGPSPPGSPGSPHDR	R	E	95.00%	2.97	0.469	0	3	0	0	2	1,847.75	38	56	TRUE	
SNU216_PC3_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	99.80%	2	3	5	0.03%	4.38%	VAAAAGSGPSPPGSPGSPHDRER	R	Q	95.00%	3.64	0.445	0	1	1	0	2	2,132.89	38	58	TRUE	
SNU216_PC3_03	THO complex subunit 1	IPI00305374	75,668.80	99.90%	1	1	1	0.01%	3.50%	TGEDEDEEDNDALLKENESPDVR	K	R	95.00%	2.83	0.234	0	0	1	0	2	2,699.08	542	564	TRUE	
SNU216_PC3_03	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	3	5	0.03%	8.70%	EKEPSYPMPVQETQAPESPGENSEQALQTL	R	A	95.00%	5.39	0.31	0	0	2	2	2	3,734.69	135	167	TRUE	
SNU216_PC3_03	Isoform 1 of Mitochondrial antiviral signaling prot	IPI00020719	56,527.90	99.80%	2	3	5	0.03%	8.70%	GPVSPSVSFQPLAR	R	S	95.00%	2.42	0.273	0	1	0	0	2	1,521.75	219	232	TRUE	
SNU216_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	5	0.03%	8.08%	HDSPDLAPNVTYSLPR	R	T	95.00%	3.65	0.399	0	1	0	0	2	1,861.85	269	284	TRUE	
SNU216_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	5	0.03%	8.08%	HDSPDPSPPR	R	R	95.00%	2.22	0.554	0	2	0	0	2	1,264.44	195	204	TRUE	
SNU216_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	5	0.03%	8.08%	HDTPDPSPLR	R	G	95.00%	2.09	0.22	0	1	0	0	2	1,294.49	157	166	TRUE	
SNU216_PC3_03	Hypothetical protein BUD13	IPI00013743	70,522.60	100.00%	4	4	5	0.03%	8.08%	NSKYEYDPDISPPR	K	K	95.00%	3.08	0.392	0	1	0	0	2	1,760.75	315	328	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC3_03	Cytosolic purine 5'-nucleotidase	IPI00029054	64,972.50	99.80%	1	1	1	0.01%	5.17%	AAHVLMPHESTVEHTHVDINEMESPLATR	R	N	95.00%	4.21	0.206	0	0	0	1	2	3,331.52	479	507	TRUE	
SNU216_PC3_03	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	100.00%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTR	R	E	95.00%	6.03	0.577	0	0	1	1	2	3,277.58	156	183	TRUE	
SNU216_PC3_03	Peptidyl-prolyl cis-trans isomerase-like 4	IPI00642862	57,226.80	100.00%	2	3	3	0.02%	7.11%	INHTVILDDPFDDPPDLLIPDRSPEPTREQLD	R	I	95.00%	5.52	0.514	0	0	0	1	2	4,062.95	156	190	TRUE	
SNU216_PC3_03	Isoform 1 of U4/U6 small nuclear ribonucleoprote	IPI00292000,IPI00657721	55,457.40	99.70%	1	1	1	0.01%	1.20%	SGLMST	K	-	94.50%	1.06	0.423	1	0	0	0	2	675.242	494	499	TRUE	
SNU216_PC3_03	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	99.80%	1	2	2	0.01%	5.47%	FTDKDQPSGSEGEDDDAEAALKK	K	E	95.00%	4.59	0.418	0	1	1	0	2	2,741.09	164	187	TRUE	
SNU216_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	3	5	5	0.03%	12.50%	EESDGEYDEFGR	R	K	95.00%	2.72	0.465	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	3	5	5	0.03%	12.50%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.24	0.535	0	1	1	0	2	2,545.00	110	129	TRUE	
SNU216_PC3_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	3	5	5	0.03%	12.50%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.8	0.549	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC3_03	Protein DEK	IPI00020021	42,675.90	99.90%	1	2	2	0.01%	5.60%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.02	0.595	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216_PC3_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	1	1	1	0.01%	3.58%	DVYLSPRDDGYSTK	K	D	95.00%	2.29	0.226	0	1	0	0	2	1,695.73	204	217	TRUE	
SNU216_PC3_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	2	3	3	0.02%	6.66%	ARLSYSDKNLIDSMDQSAFAGFSFVNPK	K	F	95.00%	5.97	0.496	0	0	1	1	2	3,188.48	642	669	TRUE	
SNU216_PC3_03	Protein kinase C delta type	IPI00329236,IPI00384562	77,479.50	100.00%	2	3	3	0.02%	6.66%	SDSASSEPVGIYQGFEK	R	K	95.00%	3.08	0.371	0	1	0	0	2	1,880.80	302	318	TRUE	
SNU216_PC3_03	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	100.00%	3	3	3	0.02%	7.80%	HTPPTIGGSLPYR	R	R	95.00%	2.37	0.361	0	1	0	0	2	1,475.70	360	372	TRUE	
SNU216_PC3_03	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	100.00%	3	3	3	0.02%	7.80%	NMAPSQQSPVR	R	T	95.00%	2.38	0.348	0	1	0	0	2	1,294.56	220	230	TRUE	
SNU216_PC3_03	Isoform 1 of Abl interactor 2	IPI00442210	55,663.60	100.00%	3	3	3	0.02%	7.80%	TTPPTQKPPSPPMSGK	R	G	95.00%	2.43	0.385	0	1	0	0	2	1,730.82	174	189	TRUE	
SNU216_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	8	0.06%	29.10%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.26	0.32	0	0	1	1	2	3,460.44	104	134	TRUE	
SNU216_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	8	0.06%	29.10%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.34	0.575	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	8	0.06%	29.10%	GPSSVEDIKAK	K	M	95.00%	2.05	0.323	0	1	0	0	2	1,210.57	211	221	TRUE	
SNU216_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	8	0.06%	29.10%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.06	0.259	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC3_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	8	0.06%	29.10%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	8.69	0.596	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216_PC3_03	Thioredoxin domain-containing protein 1 precurso	IPI00395887	31,791.90	99.80%	2	2	2	0.01%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	4.89	0.503	0	0	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC3_03	Thioredoxin domain-containing protein 1 precurso	IPI00395887	31,791.90	99.80%	2	2	2	0.01%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.38	0.573	0	1	0	0	2	2,389.89	235	254	TRUE	
SNU216_PC3_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.80%	2	2	2	0.01%	9.90%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.25	0.2	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216_PC3_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	99.80%	2	2	2	0.01%	9.90%	EEVVGGDDSDGLR	R	A	95.00%	2.57	0.317	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216_PC3_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	4	8	8	0.06%	8.97%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	4.01	0.493	0	1	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC3_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	4	8	8	0.06%	8.97%	LAAGRPFNTYPR	K	A	95.00%	2.64	0.273	0	0	1	0	2	1,442.69	199	210	TRUE	
SNU216_PC3_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	4	8	8	0.06%	8.97%	RKSLVGTPYWMAPELISR	R	L	95.00%	3.83	0.55	0	1	1	1	2	2,184.10	472	489	TRUE	
SNU216_PC3_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	4	8	8	0.06%	8.97%	SLVGTPYWMAPELISR	K	L	95.00%	3.19	0.549	0	1	1	0	2	1,899.91	474	489	TRUE	
SNU216_PC3_03	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	2	3	4	0.03%	14.10%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	3.91	0.514	0	1	3	0	2	2,650.18	61	86	FALSE	IPI00216230
SNU216_PC3_03	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	2	3	4	0.03%	14.10%	HASPILPITEFSDIPR	K	R	95.00%	3.4	0.317	0	1	1	0	2	1,872.93	304	319	TRUE	
SNU216_PC3_03	thymopoietin isoform beta	IPI00030131	50,671.40	100.00%	2	3	4	0.03%	14.10%	QNGSNDSDRYSDNEEDSKIELK	R	L	95.00%	5	0.299	0	0	2	0	2	2,623.08	174	195	TRUE	
SNU216_PC3_03	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	100.00%	2	2	2	0.01%	6.87%	NFTKPQDGDVIAPLITPQKK	R	E	95.00%	3.75	0.406	0	0	1	0	2	2,290.18	577	596	TRUE	
SNU216_PC3_03	SAM domain and HD domain-containing protein	IPI00294739	72,202.70	100.00%	2	2	2	0.01%	6.87%	TPSNTPSAEADWSPGLELHPDYK	R	T	95.00%	3.95	0.154	0	0	1	0	2	2,592.13	21	43	TRUE	
SNU216_PC3_03	Dihydropyrimidinase-related protein 2	IPI00257508	62,294.00	100.00%	1	2	4	0.03%	2.10%	TSPAKQQAPPVR	K	N	95.00%	2.54	0.322	0	2	2	0	2	1,359.68	521	532	TRUE	
SNU216_PC3_03	Protein C2orf17	IPI00301294	57,790.20	100.00%	3	3	4	0.03%	8.29%	FLPDVSASSPEEPHSDSEGAGSGAR	K	P	95.00%	3.85	0.276	0	0	1	0	2	2,566.07	124	148	TRUE	
SNU216_PC3_03	Protein C2orf17	IPI00301294	57,790.20	100.00%	3	3	4	0.03%	8.29%	QALDSEEEEEDVAAK	R	E	95.00%	3.85	0.551	0	2	0	0	2	1,742.70	381	395	TRUE	
SNU216_PC3_03	Protein C2orf17	IPI00301294	57,790.20	100.00%	3	3	4	0.03%	8.29%	QALDSEEEEEDVAAKETLLR	R	L	95.00%	4.13	0.442	0	0	1	0	2	2,355.06	381	400	TRUE	
SNU216_PC4_03	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	99.80%	2	3	4	0.03%	10.80%	KYGGSVGSQPPPVAPEPGPVPSSPSQEPPTI	K	E	95.00%	6.69	0.537	0	0	1	1	2	3,291.61	178	209	TRUE	
SNU216_PC4_03	UBA/UBX 33.3 kDa protein	IPI00027378,IPI00396563	35,107.40	99.80%	2	3	4	0.03%	10.80%	YGGSVGSQPPPVAPEPGPVPSSPSQEPPTKI	K	E	95.00%	6.44	0.469	0	0	2	0	2	3,163.51	179	209	TRUE	
SNU216_PC4_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.04%	7.10%	SSSESYTQSFQSR	R	K	95.00%	2.81	0.361	0	1	0	0	2	1,573.62	460	472	TRUE	
SNU216_PC4_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.04%	7.10%	VAAAAGSGPSPPGSPGHDR	R	E	95.00%	3.82	0.448	0	2	1	0	2	1,767.78	38	56	TRUE	
SNU216_PC4_03	Phosphatidylinositol 4-kinase type II	IPI00020124	54,023.00	100.00%	3	5	6	0.04%	7.10%	VAAAAGSGPSPPGSPGHDRER	R	Q	95.00%	3.95	0.466	0	1	1	0	2	2,132.89	38	58	TRUE	
SNU216_PC4_03	signal-induced proliferation-associated 1 like 1	IPI00413362,IPI00435422	200,032.20	98.90%	1	1	1	0.01%	0.67%	TLSDESIYNSQR	R	E	95.00%	2.28	0.298	0	1	0	0	2	1,492.63	1583	1594	TRUE	
SNU216_PC4_03	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.03%	5.38%	EDLSPAFDHSPNK	K	I	95.00%	3.13	0.435	0	1	0	0	2	1,536.64	295	307	TRUE	
SNU216_PC4_03	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.03%	5.38%	ELSKEDLSPAFDHSPNK	K	I	95.00%	3.88	0.376	0	1	1	0	2	1,993.89	291	307	TRUE	
SNU216_PC4_03	protein tyrosine phosphatase, non-receptor type	IPI00106928,IPI00218788,IP	48,529.40	100.00%	3	4	4	0.03%	5.38%	WKELSKEDLSPAFDHSPNK	R	I	95.00%	4.18	0.292	0	0	1	0	2	2,308.06	289	307	TRUE	
SNU216_PC4_03	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	2	2	2	0.01%	11.70%	GALQNIIPASTGAAK	R	A	95.00%	2.71	0.305	0	1	0	0	2	1,491.76	200	214	TRUE	
SNU216_PC4_03	Glyceraldehyde-3-phosphate dehydrogenase	IPI00219018	35,922.20	100.00%	2	2	2	0.01%	11.70%	VIHDNFGIVEGLMTTVHAITATQK	K	T	95.00%	3.33	0.23	0	0	1	0	2	2,675.33	162	185	TRUE	
SNU216_PC4_03	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.03%	10.70%	RASLSDLTDLEDIEGLTVR	R	Q	95.00%	4.64	0.516	0	1	1	0	2	2,183.06	238	256	TRUE	
SNU216_PC4_03	Isoform 1 of Rififylin	IPI00103867,IPI00651650	39,712.40	99.80%	2	3	4	0.03%	10.70%	VPAEDETQSIDSEDSFVPGR	R	R	95.00%	4.91	0.486	0	2	0	0	2	2,257.95	218	237	TRUE	
SNU216_PC4_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.90%	2	3	3	0.02%	2.24%	ARVDHGAEIITQSPGR	K	S	95.00%	3.57	0.226	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216_PC4_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.90%	2	3	3	0.02%	2.24%	SGTSTPTTPGSTAITPGTPPSYSSR	K	T	95.00%	5.14	0.0655	0	1	1	0	2	2,488.12	1588	1612	TRUE	
SNU216_PC4_03	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	99.80%	2	2	3	0.02%	9.55%	SLHLSPQEQSASYQDR	K	R	95.00%	4.02	0.492	0	1	0	0	2	1,925.84	61	76	TRUE	
SNU216_PC4_03	Isoform 1 of Protein C20orf172	IPI00016580,IPI00641008,IP	24,348.00	99.80%	2	2	3	0.02%	9.55%	THDHQLESSLSPVEVFAK	K	T	95.00%	4.7	0.448	0	0	2	0	2	2,103.97	4	21	TRUE	
SNU216_PC4_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	8.51%	ALASEKSPTADAKPAPK	K	R	95.00%	3.46	0.313	0	0	1	0	2	1,761.88	280	296	TRUE	
SNU216_PC4_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	8.51%	GVPEKSPVLEK	K	S	84.50%	2.06	0.253	0	1	0	0	2	1,262.64	186	196	TRUE	
SNU216_PC4_03	ladinin 1	IPI00386700,IPI00514234	58,678.60	100.00%	3	3	3	0.02%	8.51%	IPSKEEEADMSSPTQR	K	T	95.00%	3.74	0.333	0	1	0	0	2	1,884.80	359	374	TRUE	
SNU216_PC4_03	Septin-2	IPI00014177	41,488.20	100.00%	2	5	6	0.04%	5.54%	IYHLPDAESDEDEDFK	K	E	95.00%	2.66	0.37	0	1	1	0	2	2,002.80	210	225	TRUE	
SNU216_PC4_03	Septin-2	IPI00014177	41,488.20	100.00%	2	5	6	0.04%	5.54%	IYHLPDAESDEDEDFKEQTR	K	L	95.00%	4.59	0.442	0	1	1	2	2	2,517.05	210	229	TRUE	
SNU216_PC4_03	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	ENSPLNVS	K	-	95.00%	2.48	0.23	1	0	0	0	2	939.3819	288	295	TRUE	
SNU216_PC4_03	Tissue factor precursor	IPI00010338	33,067.30	100.00%	2	2	2	0.01%	5.76%	KAGVGQSWKENSPLNVS	R	-	95.00%	2.66	0.371	0	1	0	0	2	1,880.89	279	295	TRUE	
SNU216_PC4_03	Adhesion-regulating molecule 1 precursor	IPI00033030,IPI00470921	42,154.30	100.00%	1	1	1	0.01%	3.93%	SQSAAVTPSSTTSSTR	R	A	86.70%	3.18	0.0748	0	1	0	0	2	1,647.72	211	226	TRUE	
SNU216_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	3	3	3	0.02%	3.70%	DNSPPPAFKPEPPK	R	A	95.00%	2.24	0.232	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	3	3	3	0.02%	3.70%	ERPSSREDTPSR	K	L	95.00%	2.31	0.333	0	1	0	0	2	1,496.65	437	448	TRUE	
SNU216_PC4_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	3	3	3	0.02%	3.70%	KVQVAALQASPPLDQDDR	R	A	95.00%	2.65	0.243	0	1	0	0	2	2,030.99	121	138	TRUE	
SNU216_PC4_03	Myosin-9	IPI00019502	226,406.30	99.30%	1	1	1	0.01%	0.66%	QFRTEMEDLMSSK	K	D	85.30%	2.34	0.203	0	1	0	0	2	1,777.66	1500	1512	TRUE	
SNU216_PC4_03	DNA-repair protein XRCC1	IPI00002564	69,525.80	98.90%	1	1	1	0.01%	2.05%	AIGSTSKPQESPK	R	G	95.00%	2.17	0.306	0	1	0	0	2	1,409.67	231	243	TRUE	
SNU216_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	14	0.09%	21.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.56	0.355	1	1	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	14	0.09%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDK	K	E	95.00%	5.96	0.551	0	0	1	0	2	2,989.16	143	168	TRUE	
SNU216_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	14	0.09%	21.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.68	0.545	0	0	5	3	2	3,657.52	143	174	TRUE	
SNU216_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	14	0.09%	21.40%	LNVLEKSSPGHR	K	A	95.00%	2.32	0.232	0	0	1	0	2	1,416.70	111	122	TRUE	
SNU216_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	14	0.09%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	E	95.00%	5.98	0.386	0	0	1	0	2	3,529.43	144	174	TRUE	
SNU216_PC4_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	6	8	14	0.09%	21.40%	PATPAEDDEDDDIDLFGSDNEEEDKEAAQL	K	L	95.00%	4.32	0.331	0	0	0	1	2	3,943.62	144	177	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	142,527.30	99.90%	2	2	2	0.01%	3.03%	RPESPSEISPIK	K	G	95.00%	3.13	0.246	0	1	0	0	2	1,419.69	303	314	TRUE	
SNU216_PC4_03	wings apart-like homolog	IPI00375330,IPI00412441,IP	142,527.30	99.90%	2	2	2	0.01%	3.03%	VEEESTGDPFGFDSDDESLPVSSK	K	N	95.00%	4.41	0.261	0	1	0	0	2	2,653.07	149	172	TRUE	
SNU216_PC4_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	5.09%	EGSPIPHDPEFGSK	R	L	95.00%	2.85	0.463	0	1	0	0	2	1,576.67	280	293	TRUE	
SNU216_PC4_03	PREDICTED: similar to Forkhead box protein K1 (M	IPI00549473,IPI00556645	59,700.80	99.80%	2	2	2	0.01%	5.09%	SAPASPTHPGLMSPR	R	S	95.00%	2.1	0.261	0	1	0	0	2	1,585.72	253	267	TRUE	
SNU216_PC4_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	DLKIESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	5.11	0.419	0	0	1	0	2	2,923.32	100	124	TRUE	
SNU216_PC4_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	IESDVQEPTEPEDDLDIMLGNK	K	K	95.00%	4.62	0.534	0	1	0	0	2	2,567.11	103	124	TRUE	
SNU216_PC4_03	Eukaryotic translation initiation factor 2 subunit 2	IPI00021728	38,389.70	100.00%	3	3	3	0.02%	12.60%	KKDASDDLDDLNFFNQK	R	K	95.00%	3.42	0.279	0	0	1	0	2	2,092.92	63	79	TRUE	
SNU216_PC4_03	Eukaryotic translation initiation factor 3 subunit 4	IPI00290460	35,612.00	100.00%	1	2	3	0.02%	7.81%	GIPLATGDTSPEPELLPGAPLPPPK	K	E	95.00%	3.4	0.561	0	2	1	0	2	2,544.30	33	57	TRUE	
SNU216_PC4_03	PREDICTED: hypothetical protein LOC79649 isofor	IPI00386897,IPI00440241,IP	93,713.40	99.80%	1	1	1	0.01%	1.92%	SASTEKLEQGTSALIR	R	Q	95.00%	2.52	0.276	0	1	0	0	2	1,770.86	183	198	TRUE	
SNU216_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	9	16	0.11%	29.80%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	4.06	0.265	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	9	16	0.11%	29.80%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	4.1	0.377	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	9	16	0.11%	29.80%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	7.47	0.618	0	0	2	1	2	2,951.45	55	80	TRUE	
SNU216_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	9	16	0.11%	29.80%	MQASIEKGGSLPK	K	V	95.00%	2.46	0.278	0	1	0	0	2	1,425.68	222	234	TRUE	
SNU216_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	9	16	0.11%	29.80%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	4.54	0.224	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216_PC4_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	6	9	16	0.11%	29.80%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.48	0.627	0	0	1	7	2	3,735.89	46	80	TRUE	
SNU216_PC4_03	Stomatin-like protein 2	IPI00334190	38,534.50	100.00%	1	1	1	0.01%	4.49%	APVPGTPDSLSSGSSR	K	D	95.00%	2.32	0.465	0	1	0	0	2	1,594.71	322	337	TRUE	
SNU216_PC4_03	Translation initiation factor eIF-2B subunit beta	IPI00028083	38,990.10	99.80%	1	1	1	0.01%	3.42%	SDESDQQESLHK	R	L	81.40%	2.04	0.19	0	1	0	0	2	1,482.57	100	111	TRUE	
SNU216_PC4_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	3	0.02%	3.88%	GADNDGSGSESGYTTPK	K	K	95.00%	3.53	0.417	0	2	0	0	2	1,722.65	206	222	TRUE	
SNU216_PC4_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	99.80%	2	2	3	0.02%	3.88%	NDSWGSFDLR	R	A	95.00%	1.81	0.282	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC4_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.80%	2	4	4	0.03%	6.69%	NWTEDMEGGISSPVKK	R	T	95.00%	3.64	0.428	0	1	1	0	2	1,857.81	312	327	TRUE	
SNU216_PC4_03	Isoform 4 of Nuclear factor 1 C-type	IPI00029795,IPI00218035,IP	55,676.00	99.80%	2	4	4	0.03%	6.69%	TEMDKSPFNSPSPQDSPR	K	L	95.00%	4.2	0.433	0	1	1	0	2	2,099.87	328	345	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	DDSHSAEDSEDEKEDHKNVR	K	Q	95.00%	4.2	0.517	0	0	3	1	2	2,421.94	71	90	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	EEDEEPESPPEKK	K	T	95.00%	3.18	0.357	0	2	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	EKTPSPKEEDEEPESPPEK	K	K	95.00%	3.92	0.379	0	0	1	0	2	2,261.97	200	218	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	EMLMEDVGSEEEQEEEDEAPFQEK	R	D	95.00%	5.02	0.513	0	1	0	0	2	2,937.12	105	128	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	4.66	0.612	0	1	3	0	2	2,445.97	9	28	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	LKATVTPSPVK	R	G	95.00%	2.17	0.279	0	2	0	0	2	1,220.67	174	184	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	LKATVTPSPVKGK	R	G	95.00%	3.03	0.463	0	1	1	0	2	1,405.78	174	186	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	NSQEDSEDSEDKDVK	K	T	95.00%	3.93	0.4	0	2	0	0	2	1,804.68	53	67	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	3.53	0.277	0	1	2	0	2	2,076.82	50	67	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	TPSPKEEDEEPESPPEK	K	K	95.00%	3.26	0.281	0	1	1	0	2	2,004.83	202	218	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	TPSPKEEDEEPESPPEKK	K	T	95.00%	4.5	0.489	0	1	3	0	2	2,132.93	202	219	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.44	0.572	0	2	1	0	2	2,317.88	10	28	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	VVDYSQFQESDDADEDYGRDSGPPTK	K	K	95.00%	5.45	0.475	0	0	1	0	2	3,000.21	10	35	TRUE	
SNU216_PC4_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	14	21	32	0.21%	50.60%	VVDYSQFQESDDADEDYGRDSGPPTKK	K	I	95.00%	3.92	0.391	0	0	1	0	2	3,128.30	10	36	TRUE	
SNU216_PC4_03	WD repeat and HMG-box DNA-binding protein 1	IPI00411614,IPI00513835,IP	112,707.30	99.80%	1	1	1	0.01%	2.75%	NQVEEDAEDSGEADDEEKPEIHKPGQNSFS	R	S	95.00%	4.4	0.387	0	0	0	1	2	3,538.48	736	766	TRUE	
SNU216_PC4_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	3	4	0.03%	4.82%	AVSDSFGPGEWDDR	R	K	95.00%	2.96	0.503	0	2	0	0	2	1,617.62	79	92	TRUE	
SNU216_PC4_03	Transmembrane BAX inhibitor motif-containing p	IPI00290452	34,608.20	99.80%	2	3	4	0.03%	4.82%	AVSDSFGPGEWDDRK	R	V	95.00%	3.1	0.326	0	1	1	0	2	1,745.72	79	93	TRUE	
SNU216_PC4_03	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.80%	2	2	2	0.01%	5.24%	NQGIEGSPGGR	R	V	95.00%	1.96	0.317	0	1	0	0	2	1,151.48	187	197	TRUE	
SNU216_PC4_03	CDNA FLJ43339 fis, clone NT2RI3007291	IPI00412676	57,324.50	99.80%	2	2	2	0.01%	5.24%	VTRSPPTQVAISSDSAR	R	K	95.00%	3.2	0.238	0	0	1	0	2	1,851.90	198	214	TRUE	
SNU216_PC4_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	3	3	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	3.85	0.517	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216_PC4_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	99.80%	2	3	3	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	5	0.464	0	0	1	0	2	1,894.88	104	120	TRUE	
SNU216_PC4_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.03%	16.10%	AHSSPASLQLGAVSPGTLTPTGVVSGPAATI	R	Q	83.80%	6.35	0	0	0	0	1	2	3,614.83	125	161	TRUE	
SNU216_PC4_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.03%	16.10%	GDSETDLEALFNAVMNPK	R	T	95.00%	4.2	0.572	0	1	1	0	2	2,030.88	59	76	TRUE	
SNU216_PC4_03	65 kDa Yes-associated protein	IPI00009326,IPI00216919	48,754.90	100.00%	3	4	4	0.03%	16.10%	QASTDAGTAGALTPQHVR	R	A	95.00%	3.34	0.392	0	0	1	0	2	1,860.86	107	124	TRUE	
SNU216_PC4_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.80%	2	2	2	0.01%	3.71%	KDSNELSDSAGEEDSADLKR	K	A	95.00%	3.11	0.22	0	0	1	0	2	2,325.91	709	728	TRUE	
SNU216_PC4_03	MORC family CW-type zinc finger 2	IPI00455518	110,726.90	99.80%	2	2	2	0.01%	3.71%	SVAVSDEEEVEEEAER	R	R	95.00%	3.6	0.292	0	1	0	0	2	1,886.75	677	692	TRUE	
SNU216_PC4_03	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.80%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPR	R	R	95.00%	3.45	0.411	0	1	0	0	2	1,578.68	551	565	TRUE	
SNU216_PC4_03	Isoform Alpha of Vinexin	IPI00419847,IPI00472540	75,330.00	99.80%	2	2	2	0.01%	2.38%	SPADPTDLGGQTSPRR	R	T	95.00%	3.48	0.389	0	1	0	0	2	1,734.78	551	566	TRUE	
SNU216_PC4_03	Hsp90 co-chaperone Cdc37	IPI00013122	44,468.20	100.00%	1	1	1	0.01%	2.38%	TGDEKDVSV	K	-	95.00%	1.78	0.224	1	0	0	0	2	1,029.41	370	378	TRUE	
SNU216_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	3.90%	KLGAGEGGEASVSPEK	K	T	95.00%	2.86	0.23	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	3.90%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	4.04	0.117	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	3.90%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.29	0.291	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	3.90%	SLGNILQAKPTSSPAK	K	G	95.00%	2.45	0.253	0	1	0	0	2	1,691.87	494	509	TRUE	
SNU216_PC4_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	3.90%	TSQVGAASAPAKESPRK	K	G	95.00%	3.01	0.268	0	0	1	0	2	1,764.86	291	307	TRUE	
SNU216_PC4_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.80%	2	3	3	0.02%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	6.51	0.262	0	0	1	0	2	4,104.59	78	115	TRUE	
SNU216_PC4_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	99.80%	2	3	3	0.02%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	8.67	0.242	0	0	1	1	2	4,260.69	78	116	TRUE	
SNU216_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	5	6	0.04%	7.67%	KAASPSPQSVR	K	R	83.80%	1.95	0.225	0	1	0	0	2	1,207.58	744	754	TRUE	
SNU216_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	5	6	0.04%	7.67%	KETESEAEDNLDDLEK	K	H	95.00%	4.53	0.47	0	1	1	0	2	1,944.80	879	894	TRUE	
SNU216_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	5	6	0.04%	7.67%	KPPAPPSPVQSQSPSTNWSPAVPVKK	K	A	95.00%	4.28	0.549	0	0	2	0	2	2,791.42	772	797	TRUE	
SNU216_PC4_03	Serine¥/arginine repetitive matrix 1	IPI00328293	103,392.70	100.00%	4	5	6	0.04%	7.67%	VPKPEPIPEPKEPSPEK	K	N	95.00%	4.76	0.474	0	0	1	0	2	1,977.99	247	263	TRUE	
SNU216_PC4_03	Elongation factor 1-gamma	IPI00000875,IPI00747497	50,016.20	100.00%	1	2	2	0.01%	4.82%	VLSAPPHFHFGQTNRTPEFLR	R	K	95.00%	3.16	0.289	0	0	1	1	2	2,531.23	30	50	TRUE	
SNU216_PC4_03	Occludin	IPI00003373,IPI00479078,IP	52,707.70	99.00%	1	1	1	0.01%	3.64%	NVSAGTQDVPSPPSDYVER	K	V	95.00%	3.39	0.342	0	1	0	0	2	2,097.91	246	264	TRUE	
SNU216_PC4_03	Hypothetical protein	IPI00014197	27,334.70	99.80%	1	1	1	0.01%	6.98%	VQAMQISSEKEEDDNEKR	R	Q	95.00%	3.04	0.324	0	1	0	0	2	2,215.95	100	117	TRUE	
SNU216_PC4_03	Protein LYRIC	IPI00328715	63,838.40	99.80%	1	1	1	0.01%	3.09%	SQEPIPDDQKVSDDDKEK	K	G	95.00%	3.81	0.23	0	0	1	0	2	2,152.93	415	432	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	5	0.03%	15.00%	AALEDTLAETEAR	K	F	95.00%	1.97	0.311	0	1	0	0	2	1,469.65	318	330	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	5	0.03%	15.00%	FVSSSSSGGVGGGVGGVLTASDGLLAGNEK	R	L	95.00%	4.28	0.385	0	2	1	0	2	2,874.28	52	81	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 19	IPI00479145	44,093.00	100.00%	3	4	5	0.03%	15.00%	QSSATSSFGGLGGGSVR	R	F	84.90%	3.27	0.0591	0	1	0	0	2	1,634.72	8	24	TRUE	
SNU216_PC4_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.89%	APSPSSRMGQAPSQSLLPPAQDQPR	R	S	95.00%	3.63	0.237	0	0	0	1	2	2,763.23	2424	2448	TRUE	
SNU216_PC4_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.89%	RVPSPTPAPK	K	E	95.00%	2.46	0.275	0	1	0	0	2	1,129.58	2578	2587	TRUE	
SNU216_PC4_03	splicing coactivator subunit SRm300	IPI00748920	299,621.60	100.00%	3	3	3	0.02%	1.89%	THTTALAGRSPSPASGR	K	R	89.10%	2.01	0.235	0	1	0	0	2	1,826.79	286	302	TRUE	
SNU216_PC4_03	Isoform 1 of WD-repeat protein 74	IPI00018192	42,441.00	99.90%	1	1	1	0.01%	3.90%	KLSGLEQPQGALQTR	R	R	95.00%	2.7	0.252	0	1	0	0	2	1,705.86	359	373	TRUE	
SNU216_PC4_03	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	EALAEAALESPRPALVR	R	S	95.00%	3.14	0.389	0	1	0	0	2	1,872.96	270	286	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	Ezrin-radixin-moesin-binding phosphoprotein 50	IPI00003527	38,737.10	100.00%	2	2	2	0.01%	9.80%	SASSDTSEELNSQDSPPK	R	Q	92.90%	4.17	0.0106	0	1	0	0	2	1,958.79	287	304	TRUE	
SNU216_PC4_03	Molecule interacting with Rab13	IPI00174962	93,442.20	99.80%	1	1	1	0.01%	1.85%	SPVPSPGSSSPQLQVK	R	S	95.00%	2.79	0.337	0	1	0	0	2	1,674.81	612	627	TRUE	
SNU216_PC4_03	Isoform 1 of Inorganic pyrophosphatase 2, mitocl	IPI00301109,IPI00470502,IP	34,700.90	100.00%	1	1	1	0.01%	7.78%	SLVESVSSSPNKESNEEEQVWHFLGK	R	-	92.30%	6.39	0.0233	0	0	1	0	2	3,026.38	280	305	TRUE	
SNU216_PC4_03	40S ribosomal protein SA	IPI00553164	32,722.90	100.00%	1	1	1	0.01%	4.08%	RKSDGIYIINLK	K	R	95.00%	2.06	0.268	0	0	1	0	2	1,499.80	40	51	TRUE	
SNU216_PC4_03	Pyruvate dehydrogenase E1 component alpha sul	IPI00306301	43,296.50	99.80%	1	2	3	0.02%	3.59%	YHGHSMSDPGVSYR	R	T	95.00%	2.66	0.242	0	1	2	0	2	1,672.66	289	302	TRUE	
SNU216_PC4_03	Mitogen-activated protein kinase 1	IPI00003479	41,260.70	99.80%	1	1	1	0.01%	5.29%	VADPDHDHTGFLTEYVATR	R	W	95.00%	5.01	0.486	0	0	1	0	2	2,223.97	172	190	TRUE	
SNU216_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SPTMEQAVQTASAHLPAPAAVGR	K	R	95.00%	2.83	0.266	0	0	1	0	2	2,370.13	192	214	TRUE	
SNU216_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SPVSTRPLPSASQK	R	A	85.60%	2.55	0.138	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SSPQLDPLR	R	K	95.00%	1.91	0.253	0	1	0	0	2	1,092.51	182	190	TRUE	
SNU216_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SSPQLDPLRK	R	S	86.70%	1.86	0.243	0	1	0	0	2	1,220.60	182	191	TRUE	
SNU216_PC4_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	100.00%	5	5	5	0.03%	10.20%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.88	0.225	0	0	0	1	2	3,491.75	182	214	TRUE	
SNU216_PC4_03	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	2	2	2	0.01%	10.10%	ARSNENLDKIDMSLDDIIK	K	L	95.00%	4.18	0.313	0	0	1	0	2	2,270.07	21	39	TRUE	
SNU216_PC4_03	forty-two-three domain containing 1 isoform 1	IPI00289907,IPI00552700	35,819.30	100.00%	2	2	2	0.01%	10.10%	LVGATATSSPPPK	R	A	95.00%	2.77	0.274	0	1	0	0	2	1,305.65	8	20	TRUE	
SNU216_PC4_03	Fructose-bisphosphate aldolase A	IPI00465439	39,289.40	100.00%	1	1	2	0.01%	4.13%	GILAADESTGSIAKR	K	L	95.00%	2.65	0.34	0	2	0	0	2	1,568.77	28	42	TRUE	
SNU216_PC4_03	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	4	6	0.04%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	K	95.00%	5.01	0.343	0	0	1	0	2	2,890.36	20	49	TRUE	
SNU216_PC4_03	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	4	6	0.04%	17.30%	HAPSPEPAVQGTGVAGVPEESGDAAAIPAK	R	A	95.00%	5.87	0.487	0	0	1	2	2	3,018.46	20	50	TRUE	
SNU216_PC4_03	Isoform 2 of Uracil-DNA glycosylase	IPI00011069	34,645.40	100.00%	3	4	6	0.04%	17.30%	KAPAGQEEPGTPPSSPLSAEQLDR	K	I	95.00%	4.13	0.295	0	0	2	0	2	2,542.18	50	73	TRUE	
SNU216_PC4_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	6.20%	DYDEEEQGYDSEKEK	R	K	95.00%	3.07	0.289	0	1	0	0	2	1,943.71	364	378	TRUE	
SNU216_PC4_03	Splicing factor arginine/serine-rich 11	IPI00464952,IPI00641287,IP	48,502.50	99.80%	2	2	2	0.01%	6.20%	VNGDDHHEEDMDMSD	K	-	95.00%	2.03	0.4	0	1	0	0	2	1,825.57	410	424	TRUE	
SNU216_PC4_03	Isoform SRP55-1 of Splicing factor, arginine/serin	IPI00012345,IPI00215879	39,588.40	99.80%	1	2	9	0.06%	3.20%	SNSPLPVPPSK	R	A	95.00%	2.77	0.494	3	6	0	0	2	1,202.58	301	311	TRUE	
SNU216_PC4_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	3	3	0.02%	4.88%	SEHKVWSPLVTEEGKR	R	H	95.00%	3.37	0.472	0	1	1	0	2	1,961.95	83	98	TRUE	
SNU216_PC4_03	PDZ and LIM domain protein 1	IPI00010414	35,940.10	100.00%	2	3	3	0.02%	4.88%	VWSPLVTEEGKR	K	H	79.50%	2.24	0.189	0	1	0	0	2	1,480.72	87	98	TRUE	
SNU216_PC4_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	1.17%	SGGSGHAVAEPASPEQELDQNK	K	G	95.00%	3.99	0.4	0	0	1	0	2	2,287.98	296	317	TRUE	
SNU216_PC4_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	1.17%	SGGSGHAVAEPASPEQELDQNKGK	K	G	95.00%	3.71	0.335	0	0	1	0	2	2,473.10	296	319	TRUE	
SNU216_PC4_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	3	3	3	0.02%	1.17%	TPVQYSQQQNSPQK	K	H	95.00%	3.44	0.375	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC4_03	Isoform 1 of TNF receptor-associated factor 4	IPI00162088,IPI00740178,IP	19,039.40	98.50%	1	1	1	0.01%	2.98%	GSLDESSLGFGYPK	R	F	95.00%	2.91	0.341	0	1	0	0	2	1,536.66	122	135	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	EESDGEYDEFGR	R	K	95.00%	3.18	0.543	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	ENVEYIEREESDGEYDEFGR	R	K	95.00%	3.16	0.493	0	1	0	0	2	2,545.00	110	129	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	ENVEYIEREESDGEYDEFGRK	R	K	95.00%	4.01	0.333	0	0	1	0	2	2,673.10	110	130	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	4.9	0.577	0	1	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	EVEDKESEGEEEDEDEDLSKYK	K	L	95.00%	4.12	0.4	0	0	1	0	2	2,711.06	147	168	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	SRSPESQVIGENTK	R	Q	95.00%	2.26	0.252	0	1	0	0	2	1,691.70	305	318	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	SRSPESQVIGENTKQP	R	-	95.00%	3.5	0.27	0	1	0	0	2	1,836.85	305	320	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	YNLDASEEEDSNK	K	K	95.00%	2.35	0.313	0	1	0	0	2	1,593.60	183	195	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	YNLDASEEEDSNKK	K	K	95.00%	3.15	0.339	0	1	0	0	2	1,721.69	183	196	TRUE	
SNU216_PC4_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	100.00%	10	11	11	0.07%	23.10%	YNLDASEEEDSNKKK	K	S	95.00%	3.18	0.368	0	1	0	0	2	1,849.79	183	197	TRUE	
SNU216_PC4_03	Hypothetical protein FLJ20291	IPI00015618	49,649.00	100.00%	2	2	2	0.01%	2.59%	KMANSSPVLSK	K	V	95.00%	2.89	0.264	0	1	0	0	2	1,241.60	213	223	TRUE	
SNU216_PC4_03	Hypothetical protein FLJ20291	IPI00015618	49,649.00	100.00%	2	2	2	0.01%	2.59%	MANSSPVLSK	K	V	95.00%	1.95	0.327	0	1	0	0	2	1,113.50	214	223	TRUE	
SNU216_PC4_03	CDNA FLJ45525 fis, clone BRTHA2026311, highly	IPI00299571	53,929.90	100.00%	2	3	3	0.02%	6.30%	DGELPVEDDIDLSDVELDDLGKDEL	R	-	95.00%	5.52	0.512	0	1	1	0	2	2,838.23	468	492	TRUE	
SNU216_PC4_03	CDNA FLJ45525 fis, clone BRTHA2026311, highly	IPI00299571	53,929.90	100.00%	2	3	3	0.02%	6.30%	EPWDGRDGELPVEDDIDLSDVELDDLGKDE	R	-	95.00%	5.79	0.381	0	0	1	0	2	3,578.56	462	492	TRUE	
SNU216_PC4_03	Hypothetical protein	IPI00022904,IPI00103654,IP	46,897.40	100.00%	1	1	1	0.01%	4.56%	NHSDSSTSESEVSSVSPLK	K	N	95.00%	4.89	0.0567	0	1	0	0	2	2,056.87	211	229	TRUE	
SNU216_PC4_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	7.69%	KSFTPDHVVYAR	R	S	95.00%	3.05	0.285	0	0	1	0	2	1,499.70	299	310	TRUE	
SNU216_PC4_03	Isoform 1 of Polymerase I and transcript release f	IPI00176903	43,476.50	100.00%	2	2	2	0.01%	7.69%	VMIYQDEVKLPAKLSISK	K	S	95.00%	3	0.193	0	0	1	0	2	2,142.13	153	170	TRUE	
SNU216_PC4_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	2	4	0.03%	6.24%	NLEELEEKSTTPPPAEPVSLPQEPPKPR	K	V	95.00%	3.8	0.352	0	0	0	1	2	3,189.57	217	244	TRUE	
SNU216_PC4_03	Isoform B of Ras-GTPase-activating protein-bindi	IPI00179890	50,816.80	100.00%	2	2	4	0.03%	6.24%	STTPPPAEPVSLPQEPPKPR	K	V	95.00%	3.35	0.534	0	0	3	0	2	2,205.10	225	244	TRUE	
SNU216_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.03%	6.45%	AVPAPSPGPTHNSPELGRPPAAGVLAPDMS	R	C	95.00%	3.66	0.233	0	0	0	1	2	3,456.66	1056	1089	TRUE	
SNU216_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.03%	6.45%	RGSLTLTISGESPK	R	A	95.00%	2.88	0.232	0	1	0	0	2	1,525.76	934	947	TRUE	
SNU216_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.03%	6.45%	RGSPVPPVPER	R	R	95.00%	2.31	0.302	0	1	0	0	2	1,270.63	912	922	TRUE	
SNU216_PC4_03	hypothetical protein LOC286077	IPI00394829	127,102.90	100.00%	4	4	4	0.03%	6.45%	RLSLGQGDSTEAATEER	R	G	95.00%	3.59	0.486	0	1	0	0	2	1,899.84	1001	1017	TRUE	
SNU216_PC4_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,377.20	99.90%	2	2	2	0.01%	2.38%	DKSDSDTEGLLFSR	R	D	92.60%	2.63	0.174	0	1	0	0	2	1,649.71	646	659	TRUE	
SNU216_PC4_03	Band 4.1-like protein 1	IPI00024062,IPI00644651	98,377.20	99.90%	2	2	2	0.01%	2.38%	SLPELDRDKSDSDTEGLLFSR	R	D	95.00%	3.52	0.447	0	0	1	0	2	2,460.13	639	659	TRUE	
SNU216_PC4_03	Hsc70-interacting protein	IPI00032826	41,332.40	100.00%	1	2	4	0.03%	5.96%	KVEEDLKADEPSSEESDLEIDK	K	E	95.00%	5.24	0.43	0	1	3	0	2	2,585.14	64	85	TRUE	
SNU216_PC4_03	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	95.00%	1.74	0.375	0	1	0	0	2	1,044.38	133	139	TRUE	
SNU216_PC4_03	Junctional adhesion molecule A precursor	IPI00001754,IPI00069985,IP	28,231.40	99.80%	1	1	1	0.01%	5.02%	VIYSQPSARSEGEFK	K	Q	95.00%	2.87	0.311	0	1	0	0	2	1,777.82	239	253	TRUE	
SNU216_PC4_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	3	4	8	0.05%	14.50%	DDGDEEGLLTHSEEELEHSQDTDADDGALC	R	-	95.00%	6.51	0.463	0	0	1	0	2	3,350.30	261	290	TRUE	
SNU216_PC4_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	3	4	8	0.05%	14.50%	GRLSPVPVPR	R	A	95.00%	1.92	0.308	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216_PC4_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	3	4	8	0.05%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	6.09	0.567	0	0	4	2	2	3,607.45	259	290	TRUE	
SNU216_PC4_03	CDNA FLJ34719 fis, clone MESAN2005689, weakly	IPI00171390	37,477.60	99.80%	1	1	1	0.01%	8.33%	VSALEEDMDDVESSEEEEEDEKLER	R	V	95.00%	4.27	0.43	0	0	1	0	2	3,230.20	181	206	TRUE	
SNU216_PC4_03	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	99.30%	2	3	3	0.02%	6.41%	RFTPPSTALSPGK	R	M	95.00%	2.18	0.259	0	1	0	0	2	1,438.71	39	51	TRUE	
SNU216_PC4_03	Isoform AML-1I of Runt-related transcription fact	IPI00218529,IPI00218936,IP	43,602.80	99.30%	2	3	3	0.02%	6.41%	TAMRVSPHHPAPTPNPR	R	A	85.50%	2.56	0.201	0	0	1	1	2	1,945.92	234	250	TRUE	
SNU216_PC4_03	Melanoma-associated antigen G1	IPI00217104	34,309.10	99.80%	1	1	1	0.01%	5.59%	GPGGSQGSQGPSPQGAR	R	R	95.00%	3	0.48	0	1	0	0	2	1,604.68	53	69	TRUE	
SNU216_PC4_03	Bystin	IPI00328987	49,602.50	99.80%	2	3	4	0.03%	9.15%	MPQDGSDDEDEEWPTLEK	R	A	95.00%	4.06	0.462	0	2	1	0	2	2,216.82	93	110	TRUE	
SNU216_PC4_03	Bystin	IPI00328987	49,602.50	99.80%	2	3	4	0.03%	9.15%	QTEVETVMSEVSGFPMPQLDPR	K	V	95.00%	3.11	0.324	0	0	1	0	2	2,557.14	159	180	TRUE	
SNU216_PC4_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	6	0.04%	6.85%	KTAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	4.28	0.235	0	0	0	1	2	2,905.25	133	157	TRUE	
SNU216_PC4_03	Isoform 1 of PHD finger protein 6	IPI00395568	41,290.50	100.00%	2	4	6	0.04%	6.85%	TAHNSEADLEESFNEHELEPSSPK	K	S	95.00%	6.82	0.592	0	1	3	1	2	2,777.16	134	157	TRUE	
SNU216_PC4_03	MARCKS-related protein	IPI00641181	19,397.40	100.00%	2	2	2	0.01%	14.40%	AAATPESQEPQAK	K	G	95.00%	2.06	0.267	0	1	0	0	2	1,407.62	144	156	TRUE	
SNU216_PC4_03	MARCKS-related protein	IPI00641181	19,397.40	100.00%	2	2	2	0.01%	14.40%	GDVTAEEAAGASPAK	R	A	95.00%	3.54	0.363	0	1	0	0	2	1,453.62	10	24	TRUE	
SNU216_PC4_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.90%	2	2	2	0.01%	13.70%	AHAWPSPYKDYEVK	R	K	95.00%	3.19	0.365	0	1	0	0	2	1,770.79	340	353	TRUE	
SNU216_PC4_03	Retinoic acid-induced protein 3	IPI00022624	40,252.60	99.90%	2	2	2	0.01%	13.70%	AYSQEEITQGFEETGDTLYAPYSTHFQLQNC	R	E	95.00%	5.91	0.327	0	0	1	0	2	4,125.84	299	333	TRUE	
SNU216_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00216049	50,978.50	100.00%	1	1	1	0.01%	4.10%	GSYGDLGGPIITTQVTIPK	R	D	95.00%	3.53	0.312	0	1	0	0	2	1,997.00	378	396	TRUE	
SNU216_PC4_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	2	2	2	0.01%	2.12%	VAGGAAPSKPASAK	K	K	95.00%	2.35	0.226	0	1	0	0	2	1,291.64	507	520	TRUE	
SNU216_PC4_03	Isoform Beta of Nucleolar phosphoprotein p130	IPI00216654,IPI00292387	74,864.70	100.00%	2	2	2	0.01%	2.12%	VAGGAAPSKPASAKK	K	G	95.00%	2.37	0.338	0	1	0	0	2	1,419.74	507	521	TRUE	
SNU216_PC4_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	5	8	8	0.05%	6.08%	EGQPSPADEKGNDSDGEGESDDPEK	K	K	95.00%	5.34	0.547	0	1	1	0	2	2,669.00	89	113	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	5	8	8	0.05%	6.08%	EGQPSPADEKGNDSDGEGESDDPEKK	K	K	95.00%	3.99	0.397	0	0	1	1	2	2,797.10	89	114	TRUE	
SNU216_PC4_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	5	8	8	0.05%	6.08%	GNDSDGEGESDDPEK	K	K	95.00%	3.17	0.532	0	1	0	0	2	1,630.54	99	113	TRUE	
SNU216_PC4_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	5	8	8	0.05%	6.08%	GNDSDGEGESDDPEKK	K	K	95.00%	3.43	0.445	0	1	0	0	2	1,758.63	99	114	TRUE	
SNU216_PC4_03	Vacuolar sorting protein 4b	IPI00182728	49,303.70	100.00%	5	8	8	0.05%	6.08%	GNDSDGEGESDDPEKKK	K	L	95.00%	3.94	0.479	0	1	1	0	2	1,886.73	99	115	TRUE	
SNU216_PC4_03	Isoform 1 of Protein phosphatase 1 regulatory su	IPI00033600	41,566.30	100.00%	1	1	1	0.01%	4.17%	GAGQQQSQEMMEVDR	R	R	95.00%	3.65	0.296	0	1	0	0	2	1,773.69	6	20	TRUE	
SNU216_PC4_03	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	4	5	0.03%	16.00%	LSMEDSKSPPPK	K	A	95.00%	2.85	0.464	0	2	1	0	2	1,395.62	127	138	TRUE	
SNU216_PC4_03	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	4	5	0.03%	16.00%	LSMEDSKSPPPKATEEK	K	K	95.00%	2.62	0.235	0	1	0	0	2	1,953.89	127	143	TRUE	
SNU216_PC4_03	Protein C20orf77	IPI00009659	36,900.80	100.00%	3	4	5	0.03%	16.00%	RTFQQIQEEEDDDYPGSYSPQDPSAGPLLTE	K	A	89.10%	6.39	0.0275	0	0	1	0	2	4,075.83	148	182	TRUE	
SNU216_PC4_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.40%	2	2	2	0.01%	2.93%	RYEDDGISDDEIEGKR	R	T	95.00%	2.64	0.208	0	0	1	0	2	1,976.82	21	36	TRUE	
SNU216_PC4_03	Isoform 1 of JmjC domain-containing histone der	IPI00166009	132,795.50	99.40%	2	2	2	0.01%	2.93%	SSPGAGPSDHHSASRDER	R	F	87.40%	2.13	0.252	0	0	1	0	2	1,929.78	739	756	TRUE	
SNU216_PC4_03	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	IDDRDSDEEGASDR	K	R	95.00%	2.76	0.409	0	1	0	0	2	1,659.61	777	790	TRUE	
SNU216_PC4_03	ATP-dependent RNA helicase DDX54	IPI00152510	98,597.90	99.80%	2	2	2	0.01%	1.82%	QKIDDRDSDEEGASDR	K	R	95.00%	2.8	0.219	0	0	1	0	2	1,915.77	775	790	TRUE	
SNU216_PC4_03	DNA-damage inducible protein 2	IPI00031618	46,571.90	99.90%	1	1	1	0.01%	3.58%	IDFSSIAVPGTSSPR	R	Q	95.00%	2.54	0.405	0	1	0	0	2	1,613.76	94	108	TRUE	
SNU216_PC4_03	Isoform 1 of Protein NDRG3	IPI00005605	41,408.90	100.00%	1	1	1	0.01%	4.53%	THSTSSSLGSGESPFSR	R	S	94.20%	3.72	0.0567	0	1	0	0	2	1,803.75	329	345	TRUE	
SNU216_PC4_03	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.40%	2	2	2	0.01%	0.11%	DPIYPPDPPIKLKIGLITK	R	N	95.00%	2.88	0.216	0	0	0	1	2	2,198.22	16842	16860	TRUE	
SNU216_PC4_03	Isoform 2 of Titin	IPI00023283	3,805,532.50	99.40%	2	2	2	0.01%	0.11%	LRNAMGSASATIRVQILDK	K	P	88.00%	4.06	0.118	0	1	0	0	2	2,140.09	27782	27800	TRUE	
SNU216_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.03%	12.00%	GSSGSPAHAESYSSGGGGQQK	R	F	95.00%	3.62	0.433	0	1	0	0	2	2,015.81	15	35	TRUE	
SNU216_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.03%	12.00%	ISPEERRSPPAPGLQPMR	R	S	95.00%	3.66	0.301	0	0	1	0	2	2,098.03	193	210	TRUE	
SNU216_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.03%	12.00%	RSPPAPGLQPMR	R	S	95.00%	2.02	0.287	0	1	0	0	2	1,386.67	199	210	TRUE	
SNU216_PC4_03	Fos-related antigen 2	IPI00011593	35,193.60	100.00%	4	4	4	0.03%	12.00%	SPPAPGLQPMR	R	S	95.00%	2.43	0.407	0	1	0	0	2	1,230.57	200	210	TRUE	
SNU216_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	9	10	0.07%	19.30%	AEDGATPSPSNETPK	K	K	95.00%	2.93	0.256	0	1	0	0	2	1,580.65	137	151	TRUE	
SNU216_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	9	10	0.07%	19.30%	AEDGATPSPSNETPKK	K	K	95.00%	3.79	0.471	0	2	1	0	2	1,708.74	137	152	TRUE	
SNU216_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	9	10	0.07%	19.30%	AEDGATPSPSNETPKKK	K	K	95.00%	4.13	0.398	0	1	1	0	2	1,836.84	137	153	TRUE	
SNU216_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	9	10	0.07%	19.30%	GEAAAERPGEAAVASSPSK	K	A	95.00%	4.05	0.449	0	1	1	0	2	1,864.84	11	29	TRUE	
SNU216_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	9	10	0.07%	19.30%	GEAAAERPGEAAVASSPSKANGQENGHVK	K	V	95.00%	4.31	0.261	0	0	0	1	2	2,899.33	11	39	TRUE	
SNU216_PC4_03	Myristoylated alanine-rich C-kinase substrate	IPI00219301	31,423.00	100.00%	6	9	10	0.07%	19.30%	GEPAAAAAPEAGASPVEK	K	E	95.00%	4.25	0.422	0	1	0	0	2	1,702.77	87	104	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	ASLGSLEGEAEAEASSPK	K	G	95.00%	4.36	0.42	0	3	1	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.8	0.344	0	0	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	FKAEAPLPSPK	K	L	95.00%	2.94	0.334	0	1	0	0	2	1,264.63	2173	2183	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	GGVTGSPEASISGSK	K	G	95.00%	2.56	0.401	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	GKGGVTGSPEASISGSK	K	G	95.00%	3.8	0.181	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	4.9	0.441	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	ISAPNVDFNLEGPK	R	V	95.00%	2.42	0.224	0	1	0	0	2	1,580.74	2518	2531	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.38	0.197	0	0	0	1	2	2,817.29	2903	2929	TRUE	
SNU216_PC4_03	313 kDa protein	IPI00555610	312,537.10	100.00%	9	10	12	0.08%	3.55%	VKTPEMIIQKPK	K	I	95.00%	2.72	0.168	0	0	1	0	2	1,491.80	241	252	TRUE	
SNU216_PC4_03	Isoform 2 of Polyadenylate-binding protein 2	IPI00005792,IPI00414963	32,749.50	99.80%	1	2	2	0.01%	7.12%	QMNMSPPPGNAGPVIMSIEEK	K	M	95.00%	4.13	0.485	0	1	1	0	2	2,307.02	146	166	TRUE	
SNU216_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	9	0.06%	5.81%	AKTQTPPVSPAPQPTEER	R	L	95.00%	4.37	0.375	0	1	1	0	2	2,013.96	360	377	TRUE	
SNU216_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	9	0.06%	5.81%	AKTQTPPVSPAPQPTEERLPSSPVYEDAASF	R	A	95.00%	3.97	0.256	0	0	0	2	2	3,505.69	360	391	TRUE	
SNU216_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	9	0.06%	5.81%	LPSSPVYEDAASFK	R	A	95.00%	3.28	0.478	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	9	0.06%	5.81%	TQTPPVSPAPQPTEER	K	L	95.00%	3.37	0.429	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC4_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	5	7	9	0.06%	5.81%	TQTPPVSPAPQPTEERLPSSPVYEDAASFK	K	A	95.00%	4.98	0.484	0	0	1	1	2	3,306.56	362	391	TRUE	
SNU216_PC4_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	AAVVTSPPPTTAPHK	R	E	95.00%	2.71	0.375	0	1	0	0	2	1,553.77	7	21	TRUE	
SNU216_PC4_03	Isoform 1 of Alpha-adducin	IPI00019901,IPI00220158	80,955.90	99.80%	2	2	2	0.01%	4.07%	SPGSPVGEGTGSPPK	R	W	95.00%	2.42	0.371	0	1	0	0	2	1,433.63	355	369	TRUE	
SNU216_PC4_03	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	93.40%	2.08	0.258	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216_PC4_03	40S ribosomal protein S6	IPI00021840	28,681.70	100.00%	1	1	1	0.01%	6.43%	LSSLRASTSKSESSQK	R	-	92.20%	2.19	0.258	0	1	0	0	2	1,775.85	234	249	TRUE	
SNU216_PC4_03	Isoform 1 of Transcription elongation factor A pr	IPI00333215	33,970.60	100.00%	2	3	3	0.02%	4.98%	KEPAITSQNSPEAR	K	E	95.00%	3.18	0.194	0	1	0	0	2	1,607.74	91	104	TRUE	
SNU216_PC4_03	Isoform 1 of Transcription elongation factor A pr	IPI00333215	33,970.60	100.00%	2	3	3	0.02%	4.98%	KKEPAITSQNSPEAR	K	E	95.00%	3.88	0.384	0	1	1	0	2	1,735.84	90	104	TRUE	
SNU216_PC4_03	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	3	3	0.02%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	3.92	0.534	0	1	0	0	2	2,304.83	162	180	TRUE	
SNU216_PC4_03	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	3	3	0.02%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	5.14	0.449	0	1	1	0	2	1,999.83	181	198	TRUE	
SNU216_PC4_03	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	99.90%	2	2	2	0.01%	4.30%	SPSVPKSPTPK	K	S	95.00%	2.43	0.221	0	1	0	0	2	1,204.60	8	18	TRUE	
SNU216_PC4_03	Isoform 1 of Alpha-parvin	IPI00018963	42,244.70	99.90%	2	2	2	0.01%	4.30%	SPTPKSPPSR	K	K	95.00%	2.03	0.365	0	1	0	0	2	1,133.54	14	23	TRUE	
SNU216_PC4_03	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.10%	2	2	2	0.01%	5.26%	ASSASVPAVGASAEGTRR	R	D	82.40%	2.34	0.184	0	0	1	0	2	1,753.82	167	184	TRUE	
SNU216_PC4_03	Isoform 1 of Pantothenate kinase 2, mitochondria	IPI00171176,IPI00556350	62,697.20	99.10%	2	2	2	0.01%	5.26%	LGSYSGPTSVSR	R	Q	95.00%	2.18	0.38	0	1	0	0	2	1,290.57	187	198	TRUE	
SNU216_PC4_03	Conserved hypothetical protein	IPI00477526	56,198.50	99.80%	2	2	2	0.01%	5.38%	HIEPELAGRDSPIR	R	A	95.00%	2.22	0.318	0	0	1	0	2	1,669.81	257	270	TRUE	
SNU216_PC4_03	Conserved hypothetical protein	IPI00477526	56,198.50	99.80%	2	2	2	0.01%	5.38%	HIEPELAGRDSPIRAEMPGNLQHYGR	R	F	95.00%	4.66	0.478	0	0	0	1	2	3,023.43	257	282	TRUE	
SNU216_PC4_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.80%	2	2	2	0.01%	3.70%	AGLESGAEPGDGDSDTTK	K	K	95.00%	3.67	0.482	0	1	0	0	2	1,786.70	480	497	TRUE	
SNU216_PC4_03	H/ACA ribonucleoprotein complex subunit 4	IPI00221394	57,544.10	99.80%	2	2	2	0.01%	3.70%	AGLESGAEPGDGDSDTTKK	K	K	95.00%	3.27	0.216	0	1	0	0	2	1,914.80	480	498	TRUE	
SNU216_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	7	7	0.05%	16.50%	ETPHSPGVEDAPIAK	R	V	95.00%	3.04	0.441	0	1	0	0	2	1,627.74	486	500	TRUE	
SNU216_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	7	7	0.05%	16.50%	KISENSYSLDDLEIGPGQLSSSTFDSEKNESR	R	R	95.00%	7.02	0.514	0	0	1	0	2	3,612.62	223	254	TRUE	
SNU216_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	7	7	0.05%	16.50%	LRSPPEALVQGR	R	Y	95.00%	2.83	0.355	0	0	1	0	2	1,402.72	130	141	TRUE	
SNU216_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	7	7	0.05%	16.50%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.13	0.331	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	7	7	0.05%	16.50%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	5.48	0.46	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216_PC4_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	6	7	7	0.05%	16.50%	SRPFTVAASFQSTSVKSPK	R	T	95.00%	3.79	0.278	0	0	1	0	2	2,105.04	588	606	TRUE	
SNU216_PC4_03	Splicing factor, arginine/serine-rich 2	IPI00005978	25,345.90	100.00%	1	1	1	0.01%	6.36%	VDNLTYRTSPDTLR	K	R	89.20%	2.38	0.193	0	1	0	0	2	1,730.81	17	30	TRUE	
SNU216_PC4_03	Isoform 1 of Cyclin-K	IPI00431127	64,239.90	99.80%	1	1	1	0.01%	1.90%	AVVVSPKEENK	R	A	95.00%	1.92	0.305	0	1	0	0	2	1,279.63	336	346	TRUE	
SNU216_PC4_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMR	R	K	95.00%	2.89	0.409	0	1	1	0	2	1,817.76	304	318	TRUE	
SNU216_PC4_03	DNA polymerase delta subunit 3	IPI00394926	51,400.40	99.80%	2	3	3	0.02%	3.43%	VALSDDETKETENMRK	R	K	95.00%	4.08	0.418	0	0	1	0	2	1,945.86	304	319	TRUE	
SNU216_PC4_03	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	5.31%	TEDGGWEWSDDEFDEESEEGK	K	A	95.00%	4.1	0.64	0	1	0	0	2	2,555.89	331	351	TRUE	
SNU216_PC4_03	Serine/threonine-protein kinase OSR1	IPI00010080	58,023.40	99.80%	2	2	2	0.01%	5.31%	TEDGGWEWSDDEFDEESEEGKAAISQLR	K	S	95.00%	5.09	0.463	0	0	1	0	2	3,295.32	331	358	TRUE	
SNU216_PC4_03	Isoform 2 of Basigin precursor	IPI00019906,IPI00218019	29,221.10	99.80%	1	1	1	0.01%	6.69%	RKPEDVLDDDDAGSAPLK	R	S	84.20%	3.03	0.133	0	0	1	0	2	2,020.92	233	250	TRUE	
SNU216_PC4_03	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.03%	9.63%	DSLSPVLHPSDLILTR	K	G	95.00%	3.4	0.339	0	1	1	0	2	1,842.94	311	326	TRUE	
SNU216_PC4_03	XPA-binding protein 1	IPI00027035	41,740.30	99.80%	2	4	4	0.03%	9.63%	GTLDEEDEEADSDTDDIDHR	R	V	95.00%	4.66	0.484	0	1	1	0	2	2,356.86	327	346	TRUE	
SNU216_PC4_03	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.80%	2	2	4	0.03%	15.10%	GRESDEDTEDASETDLAKHDEEDYVEMK	R	E	95.00%	3.86	0.48	0	0	1	0	2	3,483.24	42	69	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	Sin3 histone deacetylase corepressor complex cor	IPI00607645	38,561.20	99.80%	2	2	4	0.03%	15.10%	RPASPSSPEHLPATPAESPAQR	K	F	95.00%	4.46	0.347	0	0	3	0	2	2,363.11	235	256	TRUE	
SNU216_PC4_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	3.38%	DGGRSSPGSQGQDEGGFMAQGK	R	T	95.00%	4.38	0.458	0	1	1	0	2	2,017.81	298	317	TRUE	
SNU216_PC4_03	Isoform Beta of Paxillin	IPI00335634	64,533.10	99.80%	2	3	3	0.02%	3.38%	SSPGGQDEGGFMAQGK	R	T	95.00%	3.2	0.502	0	1	0	0	2	1,632.64	302	317	TRUE	
SNU216_PC4_03	Tubulin alpha-ubiquitous chain	IPI00387144	50,151.70	100.00%	1	1	1	0.01%	4.43%	TIGGGDDSFNTFFSETGAGK	K	H	95.00%	3.3	0.356	0	1	0	0	2	2,087.86	41	60	TRUE	
SNU216_PC4_03	Methylosome subunit pICln	IPI00004795	26,215.40	99.80%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEEDSDDDVEPITEFR	K	F	95.00%	5.92	0.59	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216_PC4_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	99.80%	2	2	2	0.01%	1.94%	SSSISEEKGDSDDEKPR	K	K	95.00%	2.49	0.381	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC4_03	Isoform 1 of Apoptotic chromatin condensation ir	IPI00007334	151,887.90	99.80%	2	2	2	0.01%	1.94%	TAQVPSPPR	R	G	95.00%	2.2	0.411	0	1	0	0	2	1,032.49	999	1007	TRUE	
SNU216_PC4_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	2	3	0.02%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET(	K	D	95.00%	6.46	0.0745	0	0	2	1	2	3,940.73	145	179	TRUE	
SNU216_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.05%	14.10%	EKVSSIDLEIDSLSSLLDDMTK	R	N	95.00%	4.21	0.441	0	1	1	0	2	2,518.19	149	170	TRUE	
SNU216_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.05%	14.10%	FSPGAPGGSGSQPNQK	K	L	94.90%	2.39	0.209	0	1	0	0	2	1,595.69	290	305	TRUE	
SNU216_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.05%	14.10%	FTPVASKFSPGAPGGSGSQPNQK	K	L	95.00%	3.41	0.299	0	0	2	0	2	2,326.09	283	305	TRUE	
SNU216_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.05%	14.10%	GPPASSPAPAPKFSPVTPK	R	F	95.00%	3.7	0.264	0	0	1	0	2	1,912.96	264	282	TRUE	
SNU216_PC4_03	Zyxin	IPI00020513,IPI00396557	62,665.60	100.00%	5	6	7	0.05%	14.10%	LGHPEALSAGTGSPQPPSFTYAQQR	K	E	95.00%	3.15	0.291	0	0	1	0	2	2,677.24	306	330	TRUE	
SNU216_PC4_03	Zinc finger protein 185	IPI00005688	49,186.50	99.80%	2	3	3	0.02%	7.22%	GGQGDPAVPAQQPADPSTPER	R	Q	95.00%	4.48	0.531	0	1	1	0	2	2,154.95	198	218	TRUE	
SNU216_PC4_03	Zinc finger protein 185	IPI00005688	49,186.50	99.80%	2	3	3	0.02%	7.22%	QSSPSGSEQLVR	R	R	95.00%	2.12	0.307	0	1	0	0	2	1,354.60	219	230	TRUE	
SNU216_PC4_03	Isoform Long of Heat shock factor protein 1	IPI00024071,IPI00218507	52,881.50	98.70%	1	1	1	0.01%	2.46%	VKEEPPSPPQSPR	R	V	95.00%	2.58	0.325	0	1	0	0	2	1,607.69	297	309	TRUE	
SNU216_PC4_03	PDZ and LIM domain protein 5	IPI00007935	63,839.90	98.70%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	2.4	0.23	0	1	0	0	2	1,630.88	101	115	TRUE	
SNU216_PC4_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.02%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	4.89	0.471	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC4_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	3	3	0.02%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.84	0.62	0	1	0	0	2	2,389.89	235	254	TRUE	
SNU216_PC4_03	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	EVYELLDSPGK	K	V	95.00%	2.08	0.357	0	1	0	0	2	1,329.60	46	56	TRUE	
SNU216_PC4_03	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	TKEVYELLDSPGK	K	V	95.00%	3.44	0.436	0	1	0	0	2	1,558.74	44	56	TRUE	
SNU216_PC4_03	Multifunctional protein ADE2	IPI00217223	49,680.30	100.00%	3	3	3	0.02%	4.21%	TKEVYELLDSPGKVLLQSK	K	D	95.00%	3.05	0.328	0	0	1	0	2	2,227.16	44	62	TRUE	
SNU216_PC4_03	PRR8 protein	IPI00061758	30,238.60	99.80%	2	2	2	0.01%	7.46%	DIKEESDEEEEDDEESGR	K	L	95.00%	4.35	0.596	0	1	0	0	2	2,219.80	200	217	TRUE	
SNU216_PC4_03	PRR8 protein	IPI00061758	30,238.60	99.80%	2	2	2	0.01%	7.46%	DIKEESDEEEEDDEESGRLR	K	F	95.00%	2.56	0.204	0	0	1	0	2	2,488.98	200	219	TRUE	
SNU216_PC4_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	99.50%	2	2	2	0.01%	5.05%	DKEDPQEMPHSPLGSMPEIR	R	D	95.00%	5.52	0.306	0	0	1	0	2	2,373.03	234	253	TRUE	
SNU216_PC4_03	SP110 nuclear body protein isoform c	IPI00162549,IPI00220747,IP	60,791.40	99.50%	2	2	2	0.01%	5.05%	RVTQGAASPGHGIQEK	R	L	90.70%	3.02	0.141	0	0	1	0	2	1,715.82	373	388	TRUE	
SNU216_PC4_03	golgi reassembly stacking protein 2	IPI00031241,IPI00743931	47,015.00	99.80%	1	2	3	0.02%	5.31%	VGDSTPVSEKPVSAAVDANASESP	R	-	95.00%	6.83	0.483	0	2	1	0	2	2,394.07	428	451	TRUE	
SNU216_PC4_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	AEEDEILNRSPR	K	N	95.00%	2.26	0.275	0	1	0	0	2	1,508.67	574	585	TRUE	
SNU216_PC4_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.9	0.214	0	1	0	0	2	2,268.82	552	570	TRUE	
SNU216_PC4_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	3	3	3	0.02%	5.74%	SDAEEDGGTVSQEEEDRKPK	K	A	95.00%	3.86	0.279	0	0	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	5	0.03%	2.92%	EIQNGNLHESDSESVPR	K	D	95.00%	3.18	0.299	0	2	0	0	2	1,990.85	66	82	TRUE	
SNU216_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	5	0.03%	2.92%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.08	0.375	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	5	0.03%	2.92%	QPTPPSEAAASK	K	K	95.00%	2.84	0.524	0	1	0	0	2	1,263.56	151	162	TRUE	
SNU216_PC4_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	100.00%	4	4	5	0.03%	2.92%	VEPVPVTKQPTPPSEAAASK	K	K	95.00%	3.34	0.419	0	0	1	0	2	2,113.06	143	162	TRUE	
SNU216_PC4_03	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	1	0.01%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.62	0.302	0	0	1	0	2	1,497.72	192	204	TRUE	
SNU216_PC4_03	Lamin-B1	IPI00217975	66,278.40	99.90%	1	1	1	0.01%	2.05%	AGGPTTPLSPTR	R	L	95.00%	2.35	0.282	0	1	0	0	2	1,234.58	14	25	TRUE	
SNU216_PC4_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSR	R	K	95.00%	2.94	0.431	0	2	2	0	2	1,593.72	221	235	TRUE	
SNU216_PC4_03	SNW domain-containing protein 1	IPI00013830	61,495.90	99.80%	2	3	5	0.03%	2.99%	GPPSPPAPVMHSPSRK	R	M	95.00%	3.29	0.301	0	0	1	0	2	1,801.79	221	236	TRUE	
SNU216_PC4_03	Isoform Crk-Ⅱ of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	95.00%	3.27	0.406	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216_PC4_03	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	DSLGDFIEHYAQLGPSSPEQLAAGAEEGGG	R	R	95.00%	4.98	0.446	0	0	1	1	2	3,335.49	84	115	TRUE	
SNU216_PC4_03	Transcriptional activator protein Pur-beta	IPI00045051	33,110.70	100.00%	2	3	3	0.02%	16.40%	RGGGSGGGEESEGEEVDED	R	-	95.00%	3.33	0.59	0	1	0	0	2	1,931.68	293	311	TRUE	
SNU216_PC4_03	Isoform 1 of 5-azacytidine-induced protein 1	REVERSE_IPI00298883-R,RE	117,309.40	99.80%	1	1	1	0.01%	1.39%	QESGTVVSVSRVIPK	K	T	95.00%	3.03	0.251	0	0	1	0	2	1,745.82	991	1005	TRUE	
SNU216_PC4_03	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.80%	2	2	2	0.01%	11.80%	AEQPSPPNSDSGQDAHPDPDANPDAAR	R	M	95.00%	3.73	0.555	0	0	1	0	2	2,916.11	144	170	TRUE	
SNU216_PC4_03	Hypothetical protein LOC144097	IPI00106955	41,036.50	99.80%	2	2	2	0.01%	11.80%	SHILEQHPHTLDLSPSEK	R	S	95.00%	3.61	0.243	0	0	1	0	2	2,148.01	108	125	TRUE	
SNU216_PC4_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	236,530.90	99.90%	2	2	2	0.01%	1.67%	TQPDGTSVPGEPASPISQR	R	L	95.00%	4.08	0.45	0	1	0	0	2	2,003.91	1730	1748	TRUE	
SNU216_PC4_03	Isoform 2 of Nuclear mitotic apparatus protein 1	IPI00006196,IPI00292771	236,530.90	99.90%	2	2	2	0.01%	1.67%	VSLEPHQGPGTPESKK	R	A	95.00%	3.03	0.218	0	0	1	0	2	1,770.84	1976	1991	TRUE	
SNU216_PC4_03	Nibrin	IPI00299463,IPI00607775	75,970.60	99.80%	1	1	1	0.01%	2.12%	IPNYQLSPTKLPSINK	R	S	95.00%	3.61	0.361	0	1	0	0	2	1,892.99	344	359	TRUE	
SNU216_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	32,834.70	100.00%	3	4	10	0.07%	9.01%	IDASKNEEDEGHSNSSPR	K	H	95.00%	5.04	0.506	0	3	4	0	2	2,051.83	68	85	TRUE	
SNU216_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	32,834.70	100.00%	3	4	10	0.07%	9.01%	IFVGGLSPDTPEEK	K	I	89.20%	2.73	0.156	0	2	0	0	2	1,568.72	184	197	TRUE	
SNU216_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	32,834.70	100.00%	3	4	10	0.07%	9.01%	NEEDEGHSNSSPR	K	H	95.00%	2.95	0.493	0	1	0	0	2	1,537.56	73	85	TRUE	
SNU216_PC4_03	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	99.80%	2	3	4	0.03%	14.70%	ELEAIFGRPVVDGEEGEPHSISPR	K	P	95.00%	4.58	0.373	0	0	1	0	2	2,700.27	274	297	TRUE	
SNU216_PC4_03	Dual specificity mitogen-activated protein kinase	IPI00003783	44,425.30	99.80%	2	3	4	0.03%	14.70%	RKPVLPALTINPTIAEGPSPTSEGASEANLVD	R	K	95.00%	9.57	0.0234	0	0	1	2	2	3,693.91	5	39	TRUE	
SNU216_PC4_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.58%	KKEEPSQNDISPK	K	T	95.00%	3.16	0.413	0	0	1	0	2	1,579.74	79	91	TRUE	
SNU216_PC4_03	Isoform 1 of Nucleolar RNA helicase 2	IPI00015953	87,346.00	99.80%	2	2	2	0.01%	3.58%	NEEPSEEEIDAPKPK	K	K	95.00%	3.16	0.288	0	1	0	0	2	1,791.77	117	131	TRUE	
SNU216_PC4_03	Gastric-associated differentially-expressed protein	IPI00386208	14,866.80	100.00%	1	1	2	0.01%	11.00%	AAAYNIVPSSTGAAK	R	A	95.00%	3.08	0.327	0	2	0	0	2	1,500.71	26	40	TRUE	
SNU216_PC4_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	SSSPAPADIAQTVEQEDLR	K	T	95.00%	3.37	0.341	0	1	1	0	2	1,964.90	230	247	TRUE	
SNU216_PC4_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	100.00%	2	3	3	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	4.64	0.38	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC4_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	6.69%	SGDETPGSEVPGDK	R	A	95.00%	2.36	0.32	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC4_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	6.69%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	4.98	0.366	0	0	0	1	2	4,198.92	226	261	TRUE	
SNU216_PC4_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	DKRPLSGPDVGTPQPAGLASGAK	R	L	95.00%	3	0.297	0	0	1	0	2	2,299.14	176	198	TRUE	
SNU216_PC4_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	RKSLVGTPYWMAPELISR	R	L	95.00%	4.13	0.402	0	0	1	0	2	2,184.10	472	489	TRUE	
SNU216_PC4_03	Isoform 1 of Serine/threonine-protein kinase PAK	IPI00014068	64,072.80	100.00%	3	3	3	0.02%	6.94%	SLVGTPYWMAPELISR	K	L	95.00%	3.04	0.426	0	0	1	0	2	1,899.91	474	489	TRUE	
SNU216_PC4_03	Histone H1.3	IPI00217466	22,220.10	99.10%	1	1	1	0.01%	9.55%	KAAKSPAK	K	A	95.00%	2.08	0.223	0	1	0	0	2	880.4653	184	191	TRUE	
SNU216_PC4_03	Histone H1.3	IPI00217466	22,220.10	99.10%	1	1	1	0.01%	9.55%	KASGPPVSELITK	K	A	95.00%	3.7	0.444	0	1	1	0	2	1,406.73	34	46	FALSE	IPI00217467
SNU216_PC4_03	Probable ATP-dependent RNA helicase DDX48	IPI00009328	46,741.20	100.00%	1	1	1	0.01%	3.66%	KLDYGQHVVAGTPGR	R	V	95.00%	3.05	0.341	0	0	1	0	2	1,677.81	151	165	TRUE	
SNU216_PC4_03	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	2	2	0.01%	5.21%	GVEPSPSPIKPGDIK	K	R	95.00%	3.74	0.469	0	1	0	0	2	1,600.80	241	255	TRUE	
SNU216_PC4_03	Isoform Short of Ubiquitin fusion degradation prc	IPI00218292,IPI00654779,IP	34,501.20	99.80%	2	2	2	0.01%	5.21%	GVEPSPSPIKPGDIKR	K	G	95.00%	4.1	0.324	0	0	1	0	2	1,756.90	241	256	TRUE	
SNU216_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	5.93%	ASPSKPASAPASR	R	S	95.00%	2.73	0.413	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	5.93%	DMESPTKLDVTLAK	K	D	95.00%	3.12	0.174	0	1	0	0	2	1,627.77	305	318	TRUE	
SNU216_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	5.93%	ETERASPIKMDLAPSK	K	D	95.00%	3.08	0.24	0	0	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	5.93%	RASPSKPASAPASR	K	S	95.00%	2.55	0.231	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	5.93%	SPSTLLPK	R	K	85.50%	1.53	0.153	1	0	0	0	2	922.4647	853	860	TRUE	
SNU216_PC4_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	6	6	6	0.04%	5.93%	VGSLDNVGHLPAGGAVK	K	I	95.00%	2.77	0.299	0	1	0	0	2	1,670.83	1099	1115	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	CDNA FLJ90669 fis, clone PLACE1005519, moderz	IPI00168350,IPI00182383,IP	46,530.40	99.70%	2	2	2	0.01%	5.87%	AEGHSDDESDSEGSDSESTSR	K	E	95.00%	3.7	0.54	0	0	1	0	2	2,263.77	296	316	TRUE	
SNU216_PC4_03	CDNA FLJ90669 fis, clone PLACE1005519, moderz	IPI00168350,IPI00182383,IP	46,530.40	99.70%	2	2	2	0.01%	5.87%	WKAEGHSDDESDSEGSDSESTSR	R	E	93.50%	2.3	0.223	0	0	1	0	2	2,737.88	294	316	TRUE	
SNU216_PC4_03	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	4	7	8	0.05%	12.70%	AAIPPPVYEEQDRPRSPTGPSNSFLANMGG	K	I	94.50%	3.25	0.228	0	0	0	1	2	3,771.80	207	241	TRUE	
SNU216_PC4_03	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	4	7	8	0.05%	12.70%	RPDPDSDEDEDYER	R	E	95.00%	4.37	0.566	0	2	1	0	2	1,817.65	150	163	TRUE	
SNU216_PC4_03	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	4	7	8	0.05%	12.70%	RPDPDSDEDEDYERER	R	R	95.00%	3.44	0.388	0	1	1	0	2	2,102.79	150	165	TRUE	
SNU216_PC4_03	Splicing factor 45	IPI00176706,IPI00479589,IP	44,962.10	100.00%	4	7	8	0.05%	12.70%	SPTGPSNSFLANMGGTVAHK	R	I	95.00%	4.39	0.602	0	1	1	0	2	2,052.92	222	241	TRUE	
SNU216_PC4_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	3	3	0.02%	9.73%	KKSPNELVDDLFK	R	G	95.00%	3.69	0.356	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC4_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	100.00%	2	3	3	0.02%	9.73%	LGSTAPQVLSTSSPAQQAENEAK	K	A	95.00%	3.75	0.328	0	1	0	0	2	2,394.12	262	284	TRUE	
SNU216_PC4_03	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	2	3	3	0.02%	3.82%	SVDEVNYWDK	R	Q	95.00%	1.95	0.277	0	1	0	0	2	1,334.53	381	390	TRUE	
SNU216_PC4_03	2-oxoisovalerate dehydrogenase alpha subunit, m	IPI00025100,IPI00444329	54,131.90	100.00%	2	3	3	0.02%	3.82%	SVDEVNYWDKQDHPISR	R	L	95.00%	4.19	0.483	0	1	1	0	2	2,167.94	381	397	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	12	0.08%	24.00%	GGMGSGGLATGIAGGLAGMGGIQNEK	R	E	89.80%	2.58	0.205	0	0	1	0	2	2,341.07	56	81	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	12	0.08%	24.00%	LLEDGEDFNLGDALDSSNSMQTIQK	R	T	95.00%	5.99	0.502	0	1	1	0	2	2,820.23	390	414	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	12	0.08%	24.00%	PVSSAASVYAGAGGSGSR	R	I	95.00%	3.33	0.463	0	2	1	0	2	1,660.73	28	45	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	12	0.08%	24.00%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	E	95.00%	4.89	0.0879	0	0	1	0	2	2,919.35	51	81	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	12	0.08%	24.00%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	95.00%	8.02	0.0012	0	0	1	2	2	3,993.83	51	90	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	12	0.08%	24.00%	TVQSLEIDLDSMR	R	N	95.00%	2.58	0.199	0	1	0	0	2	1,586.71	309	321	TRUE	
SNU216_PC4_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	7	10	12	0.08%	24.00%	VRSLETENR	R	R	95.00%	2.27	0.301	0	1	0	0	2	1,183.55	98	106	TRUE	
SNU216_PC4_03	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	ANSALTPPKPESGLTLQESNTPGLR	R	Q	95.00%	3.77	0.306	0	0	1	0	2	2,658.31	451	475	TRUE	
SNU216_PC4_03	specifically androgen-regulated protein	IPI00028392	63,965.50	99.80%	2	2	2	0.01%	7.15%	SGVGLSSYLSTEKDASPK	R	T	95.00%	3.89	0.467	0	1	0	0	2	1,905.88	487	504	TRUE	
SNU216_PC4_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	5	5	7	0.05%	19.20%	DGYGGSRDSYSSSR	R	S	86.30%	1.97	0.32	0	1	0	0	2	1,573.59	318	331	TRUE	
SNU216_PC4_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	5	5	7	0.05%	19.20%	DRDYSDHPSGGSYR	R	D	95.00%	2.84	0.422	0	0	1	0	2	1,691.64	269	282	TRUE	
SNU216_PC4_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	5	5	7	0.05%	19.20%	GLPPSMER	R	G	95.00%	1.86	0.344	0	3	0	0	2	966.4116	348	355	TRUE	
SNU216_PC4_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	5	5	7	0.05%	19.20%	GPPSRGGHMDDGGYSMNFNMSSSR	R	G	95.00%	3.9	0.307	0	0	1	0	2	2,624.01	121	144	TRUE	
SNU216_PC4_03	Heterogeneous nuclear ribonucleoprotein G	IPI00304692	42,333.70	100.00%	5	5	7	0.05%	19.20%	RDVYLSPRDDGYSTK	R	D	95.00%	2.38	0.297	0	1	0	0	2	1,851.83	203	217	TRUE	
SNU216_PC4_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	2	0.01%	1.68%	AEDSDSEPEPEDNVR	K	L	91.50%	2.3	0.219	0	1	0	0	2	1,848.62	496	510	TRUE	
SNU216_PC4_03	5'-3' exoribonuclease 2	IPI00100151	108,585.70	100.00%	2	2	2	0.01%	1.68%	KAEDSDSEPEPEDNVR	R	L	95.00%	3.33	0.387	0	1	0	0	2	1,976.72	495	510	TRUE	
SNU216_PC4_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.85	0.365	0	0	1	0	2	2,281.08	217	235	TRUE	
SNU216_PC4_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	4.96	0.414	0	0	1	0	2	2,836.13	300	324	TRUE	
SNU216_PC4_03	Coiled-coil domain-containing protein 16	IPI00043565	41,990.30	99.40%	1	1	1	0.01%	6.18%	KEEENADSDDEGELQDLLSQDWR	K	V	95.00%	3.79	0.418	0	0	1	0	2	2,801.14	344	366	TRUE	
SNU216_PC4_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.80%	2	2	2	0.01%	2.76%	ATSPVKSTTSITDAK	K	S	95.00%	2.91	0.448	0	1	0	0	2	1,586.77	293	307	TRUE	
SNU216_PC4_03	Isoform 1 of Actin-binding protein anillin	IPI00657687,IPI00743594	124,201.60	99.80%	2	2	2	0.01%	2.76%	TPISPLKTGVSKPIVK	K	S	95.00%	2.87	0.329	0	0	1	0	2	1,745.00	320	335	TRUE	
SNU216_PC4_03	Histone H1.5	IPI00217468	22,450.50	100.00%	4	7	9	0.06%	16.40%	ATKSPAKPK	K	A	80.40%	1.66	0.262	0	1	0	0	2	1,007.53	185	193	TRUE	
SNU216_PC4_03	Histone H1.5	IPI00217468	22,450.50	100.00%	4	7	9	0.06%	16.40%	AVKKTPK	K	K	82.80%	1.58	0.252	0	1	0	0	2	851.4752	150	156	TRUE	
SNU216_PC4_03	Histone H1.5	IPI00217468	22,450.50	100.00%	4	7	9	0.06%	16.40%	SETAPAETATPAPVEKSPAK	-	K	95.00%	5.28	0.448	0	3	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC4_03	Histone H1.5	IPI00217468	22,450.50	100.00%	4	7	9	0.06%	16.40%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	5.1	0.525	0	1	1	1	2	2,190.07	1	21	TRUE	
SNU216_PC4_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	1	3	4	0.03%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	3.13	0.507	1	2	1	0	2	1,488.66	416	429	TRUE	
SNU216_PC4_03	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	3	4	0.03%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	3.96	0.503	0	1	2	1	2	2,597.00	131	153	TRUE	
SNU216_PC4_03	Isoform 3 of Anamorsin	IPI00025333,IPI00387130	33,583.00	99.80%	1	1	1	0.01%	5.35%	KSSPSVKPAVDPAAAK	K	L	95.00%	3.22	0.402	0	0	1	0	2	1,632.84	181	196	TRUE	
SNU216_PC4_03	Rho-GTPase-activating protein 1	IPI00020567	50,437.90	99.80%	1	2	2	0.01%	2.51%	SSSPELVTHLK	K	W	95.00%	2.71	0.409	0	1	1	0	2	1,277.61	49	59	TRUE	
SNU216_PC4_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	99.90%	2	3	3	0.02%	3.61%	LTPVSPESSSTEEK	R	S	95.00%	2.5	0.351	0	1	0	0	2	1,570.69	268	281	TRUE	
SNU216_PC4_03	Isoform 1 of Sequestosome-1	IPI00179473,IPI00651643	47,870.90	99.90%	2	3	3	0.02%	3.61%	SRLTPVSPESSSTEEK	R	S	95.00%	2.53	0.243	0	1	1	0	2	1,813.82	266	281	TRUE	
SNU216_PC4_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	2	3	5	0.03%	5.70%	ELEEEEENSDEDELDSHTMVK	R	T	95.00%	5.31	0.53	0	1	3	0	2	2,586.99	308	328	TRUE	
SNU216_PC4_03	Serine/threonine-protein kinase 3	IPI00411984	56,302.50	100.00%	2	3	5	0.03%	5.70%	RHEEQQRELEEEEENSDEDELDSHTMVK	K	T	95.00%	4.89	0.337	0	0	0	1	2	3,550.46	301	328	TRUE	
SNU216_PC4_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.11%	GVGSGPHPPDTQQPSPSK	R	A	95.00%	2.98	0.342	0	1	0	0	2	1,852.82	646	663	TRUE	
SNU216_PC4_03	tensin-like SH2 domain containing 1	IPI00658152,IPI00759836	155,266.50	99.80%	2	2	2	0.01%	3.11%	WDSYENLSADGEVLHTQGPVDGSLYAK	R	V	95.00%	4.51	0.411	0	0	1	0	2	3,031.34	330	356	TRUE	
SNU216_PC4_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.50%	VPSSDEEVVEEPQSR	R	R	95.00%	3.68	0.445	0	1	0	0	2	1,846.71	1618	1632	TRUE	
SNU216_PC4_03	182 kDa tankyrase 1-binding protein	IPI00304589	181,815.00	100.00%	2	2	2	0.01%	1.50%	WSDQGPAQTSR	R	R	95.00%	2.1	0.28	0	1	0	0	2	1,312.53	1532	1542	TRUE	
SNU216_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.03%	4.67%	ETQSPEQVKSEK	K	L	95.00%	2.94	0.402	0	0	1	0	2	1,469.65	493	504	TRUE	
SNU216_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.03%	4.67%	KAEGEPQEESPLK	K	S	95.00%	3.29	0.304	0	1	0	0	2	1,521.68	168	180	TRUE	
SNU216_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.03%	4.67%	KAEGEPQEESPLKSK	K	S	95.00%	4.98	0.438	0	0	1	0	2	1,736.81	168	182	TRUE	
SNU216_PC4_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	4	4	4	0.03%	4.67%	NTPSQHSHSIQHSPER	K	S	95.00%	2.57	0.261	0	1	0	0	2	1,921.83	256	271	TRUE	
SNU216_PC4_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	KDSLDLEEEAASGASSALEAGGSSGLEDVLP	R	G	95.00%	5.58	0.335	0	0	1	1	2	4,288.01	210	250	TRUE	
SNU216_PC4_03	Cerebral protein-10	IPI00410079	52,071.20	99.80%	2	3	3	0.02%	12.60%	SQSLPNSLDYTQTSDPGR	R	H	95.00%	4.15	0.48	0	1	0	0	2	2,045.88	44	61	TRUE	
SNU216_PC4_03	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	5	0.03%	6.02%	GDSESEEDEDLEVPVPSR	K	F	95.00%	4.33	0.553	0	2	0	0	2	2,148.79	75	92	TRUE	
SNU216_PC4_03	PRKAR2A protein	IPI00063234,IPI00219774	45,387.60	100.00%	2	3	5	0.03%	6.02%	VADAKGDSESEEDEDLEVPVPSR	R	F	95.00%	4.08	0.311	0	1	2	0	2	2,553.09	70	92	TRUE	
SNU216_PC4_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	3	3	0.02%	10.30%	GSGSHNWGTVKDELTESPK	R	Y	95.00%	4.5	0.455	0	1	0	0	2	2,165.95	217	236	TRUE	
SNU216_PC4_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	3	3	0.02%	10.30%	GSGSHNWGTVKDELTESPKYIQK	R	Q	95.00%	4.17	0.22	0	0	0	1	2	2,698.25	217	240	TRUE	
SNU216_PC4_03	Isoform 1 of Plasminogen activator inhibitor 1 RN	IPI00410693,IPI00470497	44,965.80	100.00%	3	3	3	0.02%	10.30%	SKSEEAHAEDSVMDHHFR	K	K	95.00%	4.23	0.532	0	0	0	1	2	2,191.89	328	345	TRUE	
SNU216_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	7	11	26	0.17%	25.90%	DDEKEAEEGEDDRDSANGEDDS	K	-	95.00%	3.87	0.628	0	1	1	0	2	2,506.85	272	293	TRUE	
SNU216_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	7	11	26	0.17%	25.90%	EAEEGEDDRDSANGEDDS	K	-	95.00%	3.17	0.412	0	3	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	7	11	26	0.17%	25.90%	MESEGGADDSAEEGDLLDDDDNEDR	K	G	95.00%	3.98	0.579	0	3	3	0	2	2,778.97	238	262	TRUE	
SNU216_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	7	11	26	0.17%	25.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	D	95.00%	7.55	0.484	0	0	1	0	2	3,790.49	238	271	TRUE	
SNU216_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	7	11	26	0.17%	25.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	6.68	0.659	0	0	4	7	2	4,357.65	238	275	TRUE	
SNU216_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	7	11	26	0.17%	25.90%	NDKSEEEQSSSSVK	K	K	95.00%	2.9	0.453	0	1	0	0	2	1,633.66	217	230	TRUE	
SNU216_PC4_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	7	11	26	0.17%	25.90%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	4.5	0.168	0	1	1	0	2	2,320.00	211	230	TRUE	
SNU216_PC4_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	2	2	0.01%	0.88%	AGTLSITEFADMLSGNAGGFRSR	R	S	95.00%	3.44	0.261	0	0	1	0	2	2,438.12	4361	4383	TRUE	IPI00398002,IPI00398779
SNU216_PC4_03	plectin 1 isoform 6	IPI00186711	531,783.90	100.00%	2	2	2	0.01%	0.88%	SSSVGSSSSYPISPAVSR	R	T	91.80%	4.04	0.0337	0	1	0	0	2	1,834.82	4384	4401	TRUE	IPI00398002,IPI00398779
SNU216_PC4_03	Isoform 2 of Protein C14orf120	IPI00000162,IPI00410360,IP	35,251.00	99.20%	2	2	2	0.01%	10.60%	FKPHPSNMMSKLSSEDEEEDEAEDDQSEAS	R	K	84.40%	5.93	0.0326	0	0	1	0	2	3,743.43	130	161	TRUE	
SNU216_PC4_03	Isoform 2 of Protein C14orf120	IPI00000162,IPI00410360,IP	35,251.00	99.20%	2	2	2	0.01%	10.60%	LSSEDEEEDEAEDDQSEASGKK	K	S	95.00%	4.35	0.623	0	1	0	0	2	2,506.95	141	162	TRUE	
SNU216_PC4_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	4	5	0.03%	11.90%	KDDEDEEEEEEVSDS	R	-	95.00%	3.3	0.564	0	1	0	0	2	1,863.62	382	396	TRUE	
SNU216_PC4_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	4	5	0.03%	11.90%	QERLSPEVAPPAHR	K	R	95.00%	3.3	0.273	0	0	1	1	2	1,666.81	31	44	TRUE	
SNU216_PC4_03	Smad nuclear-interacting protein 1	IPI00154515	45,777.40	100.00%	3	4	5	0.03%	11.90%	RPDHSGGSPSPPTSEPAR	R	S	95.00%	2.93	0.299	0	0	2	0	2	1,911.83	45	62	TRUE	
SNU216_PC4_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.03%	14.80%	GVTIPYRPKPSSSPVIFAGGQDR	K	Y	95.00%	3.42	0.296	0	0	1	0	2	2,509.26	177	199	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.03%	14.80%	LHQLAMQQSHFPMTHGNTGFSGIESSSPE	K	G	95.00%	4.21	0.31	0	0	1	1	2	3,462.56	246	276	TRUE	
SNU216_PC4_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	3	4	4	0.03%	14.80%	PSSSPVIFAGGQDR	K	Y	95.00%	2.96	0.392	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	10	19	0.13%	10.00%	FASDDEHDEHDENGATGPVK	K	R	95.00%	3.45	0.416	0	1	2	0	2	2,249.86	364	383	TRUE	
SNU216_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	10	19	0.13%	10.00%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	4.48	0.419	0	2	2	2	2	2,405.96	364	384	TRUE	
SNU216_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	10	19	0.13%	10.00%	SPSKPLPEVTDEYKNDVK	R	N	95.00%	4.13	0.411	0	0	1	0	2	2,126.01	92	109	TRUE	
SNU216_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	10	19	0.13%	10.00%	TKFASDDEHDEHDENGATGPVK	K	R	95.00%	4.2	0.539	0	0	3	0	2	2,479.00	362	383	TRUE	
SNU216_PC4_03	Lupus La protein	IPI00009032	46,839.00	100.00%	5	10	19	0.13%	10.00%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	4.31	0.493	0	1	2	3	2	2,635.11	362	384	TRUE	
SNU216_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	KAPKSPAK	K	A	95.00%	2.38	0.341	0	2	0	0	2	906.481	182	189	TRUE	
SNU216_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	KASGPPVSELITK	R	A	95.00%	3.7	0.444	0	1	1	0	2	1,406.73	33	45	TRUE	IPI00217466
SNU216_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	SETAPAAPAAPAPAEKTPVK	-	K	95.00%	4.17	0.47	0	1	1	0	2	1,983.98	1	20	TRUE	
SNU216_PC4_03	Histone H1.4	IPI00217467	21,735.70	100.00%	4	8	9	0.06%	19.30%	SETAPAAPAAPAPAEKTPVKK	-	K	95.00%	4.53	0.526	0	1	1	1	2	2,112.07	1	21	TRUE	
SNU216_PC4_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	5	0.03%	4.61%	PAPPQEESPSSEAK	R	S	95.00%	2.61	0.292	0	1	0	0	2	1,533.65	79	92	TRUE	
SNU216_PC4_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	5	0.03%	4.61%	RSSQPSPTAVPASDSPPTK	R	Q	95.00%	3.88	0.403	0	2	1	0	2	1,989.93	111	129	TRUE	
SNU216_PC4_03	KIAA1187 protein	IPI00645814,IPI00654605	92,820.20	100.00%	3	4	5	0.03%	4.61%	RSSQPSPTAVPASDSPPTKQEVK	R	K	95.00%	4.75	0.427	0	0	1	0	2	2,474.19	111	133	TRUE	
SNU216_PC4_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	1	1	1	0.01%	3.63%	IGEGTYGVVYK	K	G	80.50%	1.58	0.273	0	1	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	8	0.05%	10.10%	RPHTPTPGIYMGR	K	P	95.00%	3.73	0.498	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	8	0.05%	10.10%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	3.05	0.405	0	0	1	2	2	2,311.08	198	217	TRUE	
SNU216_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	8	0.05%	10.10%	RSPSPYYSR	R	D	95.00%	2.38	0.229	1	1	0	0	2	1,272.48	263	271	TRUE	IPI00013891
SNU216_PC4_03	Isoform 1 of Arginine/serine-rich splicing factor 1(	IPI00301503,IPI00555647	33,699.60	100.00%	4	6	8	0.05%	10.10%	SPSPYYSR	R	D	95.00%	1.64	0.29	2	0	0	0	2	1,116.38	264	271	TRUE	IPI00013891
SNU216_PC4_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	4	0.03%	7.80%	EGRPSGEAFVELESEDEVK	R	L	95.00%	3.98	0.332	0	1	1	0	2	2,186.95	50	68	TRUE	
SNU216_PC4_03	heterogeneous nuclear ribonucleoprotein H1	IPI00013881,IPI00479191	51,230.10	100.00%	2	4	4	0.03%	7.80%	HTGPNSPDTANDGFVR	K	L	95.00%	3.46	0.387	0	1	1	0	2	1,764.73	99	114	TRUE	
SNU216_PC4_03	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	2	2	9	0.06%	6.31%	EESEESDEDMGFGLFD	K	-	95.00%	2.56	0.372	0	1	0	0	2	1,915.65	302	317	TRUE	
SNU216_PC4_03	60S acidic ribosomal protein P0	IPI00008530	34,274.30	100.00%	2	2	9	0.06%	6.31%	VEAKEESEESDEDMGFGLFD	K	-	95.00%	3.39	0.455	0	8	0	0	2	2,422.86	298	317	TRUE	
SNU216_PC4_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RGSSGSVDETLFALPAASEPVIR	R	S	95.00%	4.6	0.393	0	0	1	0	2	2,439.19	179	201	TRUE	
SNU216_PC4_03	Isoform 1 of Reticulon-4	IPI00021766,IPI00478442	130,104.80	99.80%	2	2	2	0.01%	2.01%	RRGSSGSVDETLFALPAASEPVIR	K	S	95.00%	4.61	0.398	0	0	1	0	2	2,595.29	178	201	TRUE	
SNU216_PC4_03	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	4	5	5	0.03%	26.90%	GFGDGYNGYGGGPGGGNFGGSPGYGGGF	R	G	95.00%	4.93	0.649	0	1	1	0	2	2,575.01	239	266	TRUE	
SNU216_PC4_03	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	4	5	5	0.03%	26.90%	GFGFVTFSSMAEVDAAMAARPHSIDGR	R	V	84.60%	2.63	0.178	0	0	1	0	2	2,907.30	63	89	TRUE	
SNU216_PC4_03	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	4	5	5	0.03%	26.90%	KALSRQEMQEVQSSR	R	S	95.00%	2.77	0.362	0	0	1	0	2	1,856.87	186	200	TRUE	
SNU216_PC4_03	Isoform B1 of Heterogeneous nuclear ribonucleop	IPI00396378	37,430.30	100.00%	4	5	5	0.03%	26.90%	NMGGPYGGGNYGPGGSGGSGGYGGR	R	S	95.00%	4.97	0.0036	0	1	0	0	2	2,269.87	326	350	TRUE	
SNU216_PC4_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GLLYDSDEEDEERPAR	R	K	95.00%	2.73	0.277	0	0	1	0	2	1,973.81	134	149	TRUE	
SNU216_PC4_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	99.80%	2	2	2	0.01%	2.99%	GNDPLTSSPGR	R	S	95.00%	2.09	0.254	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	9	11	0.07%	13.00%	EFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	5.67	0.537	0	1	1	0	2	3,016.19	108	132	TRUE	
SNU216_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	9	11	0.07%	13.00%	EFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	4.21	0.288	0	0	2	2	2	3,647.49	108	138	TRUE	
SNU216_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	9	11	0.07%	13.00%	LDNVPHTPSSYIETLPK	R	A	95.00%	3.1	0.389	0	1	1	0	2	1,990.95	45	61	TRUE	
SNU216_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	9	11	0.07%	13.00%	REFITGDVEPTDAESEWHSENEEEEK	R	L	95.00%	6.59	0.491	0	0	1	1	2	3,172.29	107	132	TRUE	
SNU216_PC4_03	Nucleosome assembly protein 1-like 4	IPI00017763	43,011.00	100.00%	5	9	11	0.07%	13.00%	REFITGDVEPTDAESEWHSENEEEEKLAGDM	R	S	95.00%	5.89	0.49	0	0	0	1	2	3,787.60	107	138	TRUE	
SNU216_PC4_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.05%	7.79%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.21	0.519	0	1	4	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC4_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.05%	7.79%	SHISDQSPLSSK	R	R	95.00%	2.36	0.269	0	1	0	0	2	1,365.60	344	355	TRUE	
SNU216_PC4_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	100.00%	3	4	7	0.05%	7.79%	SSTPLPTISSSAENTR	R	Q	95.00%	2.92	0.158	0	1	0	0	2	1,727.78	157	172	TRUE	IPI00030131
SNU216_PC4_03	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	1	2	2	0.01%	6.01%	GADSGEEKEEGINR	K	E	95.00%	2.71	0.402	0	1	1	0	2	1,570.64	194	207	TRUE	
SNU216_PC4_03	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	4	7	0.05%	5.47%	FTDKDQQPSGSEGEDDDAEAALK	K	K	95.00%	3.75	0.296	0	0	1	0	2	2,612.99	164	186	TRUE	
SNU216_PC4_03	Hypothetical protein DKFZp686C1054	IPI00465054,IPI00550243	48,548.90	100.00%	2	4	7	0.05%	5.47%	FTDKDQQPSGSEGEDDDAEAALKK	K	E	95.00%	4.72	0.524	0	1	4	1	2	2,741.09	164	187	TRUE	
SNU216_PC4_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	10.10%	GDSLKEPTSIAESSR	R	H	90.00%	2.13	0.221	0	1	0	0	2	1,656.75	325	339	TRUE	
SNU216_PC4_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	10.10%	LLRQSPPLPGREEEPGLGDSGIQSTPGSGHA	K	T	95.00%	3.67	0.338	0	0	0	1	2	3,472.70	497	529	TRUE	
SNU216_PC4_03	Isoform 2 of Probable palmitoyltransferase ZDHH	IPI00216546,IPI00328272	71,953.30	100.00%	3	3	3	0.02%	10.10%	SLGSASPGPGQPPLSSPTR	K	G	95.00%	3.3	0.447	0	1	0	0	2	1,872.89	626	644	TRUE	
SNU216_PC4_03	Matrin-3	IPI00017297	94,626.70	99.80%	1	2	2	0.01%	2.60%	RDSFDDRGPSLNPVLDYDHGSR	R	S	95.00%	3.17	0.393	0	0	1	1	2	2,598.14	186	207	TRUE	
SNU216_PC4_03	Keratin b20	IPI00375843,IPI00431749	50,510.80	100.00%	1	1	1	0.01%	3.32%	MDSPSATVVSAVQSR	R	C	95.00%	2.75	0.421	0	1	0	0	2	1,614.72	394	408	TRUE	
SNU216_PC4_03	Transcription factor jun-B	IPI00013439	35,879.80	99.60%	2	3	3	0.02%	5.19%	DATPPVSPINMEDQER	R	I	92.80%	2.58	0.171	0	1	0	0	2	1,958.76	253	268	TRUE	
SNU216_PC4_03	Transcription factor jun-B	IPI00013439	35,879.80	99.60%	2	3	3	0.02%	5.19%	SRDATPPVSPINMEDQER	R	I	95.00%	3.44	0.333	0	1	1	0	2	2,201.89	251	268	TRUE	
SNU216_PC4_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	4.3	0.25	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216_PC4_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	4.07	0.232	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216_PC4_03	Adenylyl cyclase-associated protein 1	IPI00008274	51,542.00	100.00%	1	3	6	0.04%	3.80%	SGPKPFSAPKPQTSPSPK	R	R	95.00%	3.86	0.548	0	3	2	1	2	1,917.95	294	311	TRUE	
SNU216_PC4_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	2	3	3	0.02%	6.01%	ARSVDALDDLTPPSTAESGSR	R	S	95.00%	5.15	0.572	0	1	1	0	2	2,225.01	472	492	TRUE	
SNU216_PC4_03	LISCH protein isoform 2	IPI00409640,IPI00409641,IP	69,557.70	100.00%	2	3	3	0.02%	6.01%	GPALTPIRDEEWGGHSPR	R	S	95.00%	3.38	0.459	0	0	1	0	2	2,054.94	430	447	TRUE	
SNU216_PC4_03	H2A histone family, member Y isoform 2	IPI00059366,IPI00304171,IP	39,618.90	100.00%	1	1	1	0.01%	3.50%	GKLEAIITPPPAK	K	K	95.00%	3.13	0.463	0	1	0	0	2	1,414.77	122	134	TRUE	
SNU216_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.03%	15.20%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	3.88	0.485	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.03%	15.20%	NEGSESAPEGQAQQR	K	R	95.00%	3.12	0.36	0	1	0	0	2	1,667.67	170	184	TRUE	
SNU216_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.03%	15.20%	NYQQNYQNSESGEK	R	N	95.00%	2.79	0.359	0	1	0	0	2	1,768.68	156	169	TRUE	
SNU216_PC4_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	4	4	4	0.03%	15.20%	NYQQNYQNSESGEKNEGSESAPEGQAQQ	R	R	80.80%	5.51	0.0285	0	0	1	0	2	3,337.36	156	184	TRUE	
SNU216_PC4_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	3	0.02%	2.43%	RRSPPADAIPK	K	S	95.00%	3.31	0.401	0	0	2	0	2	1,287.66	9	19	TRUE	
SNU216_PC4_03	RCC1 protein	IPI00001661,IPI00747309	48,144.30	100.00%	2	2	3	0.02%	2.43%	SPPADAIPK	R	S	95.00%	1.6	0.331	0	1	0	0	2	975.4549	11	19	TRUE	
SNU216_PC4_03	Synaptic vesicle membrane protein VAT-1 homol	IPI00156689	41,919.80	100.00%	1	1	1	0.01%	4.33%	EVAEAATGEDASSPPPK	R	T	95.00%	2.62	0.362	0	1	0	0	2	1,735.74	6	22	TRUE	
SNU216_PC4_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	2	2	2	0.01%	6.12%	AAESETPGKSPEK	K	K	95.00%	2.56	0.29	0	1	0	0	2	1,410.62	418	430	TRUE	
SNU216_PC4_03	Ribosomal L1 domain-containing protein 1	IPI00008708	54,974.70	100.00%	2	2	2	0.01%	6.12%	ATNESEDEIPQLVPIGK	K	K	95.00%	3.63	0.329	0	1	0	0	2	1,919.90	357	373	TRUE	
SNU216_PC4_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	6	0.04%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	3.28	0.575	0	1	0	0	2	2,155.73	12	28	TRUE	
SNU216_PC4_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	6	0.04%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	4.97	0.482	0	1	2	0	2	2,231.87	11	28	TRUE	
SNU216_PC4_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	5	6	0.04%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	4.18	0.427	0	1	1	0	2	1,887.86	250	265	TRUE	
SNU216_PC4_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	DKSPVREPIDNLTPEER	K	D	95.00%	3.98	0.387	0	0	1	0	2	2,074.98	134	150	TRUE	
SNU216_PC4_03	Isoform 1 of RNA-binding region-containing prot	IPI00163505,IPI00215801	59,381.40	100.00%	2	2	2	0.01%	4.91%	YRSPYSGPK	R	F	85.40%	2.16	0.225	0	1	0	0	2	1,134.50	95	103	TRUE	
SNU216_PC4_03	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.80%	2	2	2	0.01%	11.80%	EMPQDLRSPARTPPSEEDSAEAER	K	L	95.00%	3.81	0.298	0	0	0	1	2	2,858.17	70	93	TRUE	
SNU216_PC4_03	Small glutamine-rich tetratricopeptide repeat-con	IPI00013949	34,063.90	99.80%	2	2	2	0.01%	11.80%	SRTPSASNDDQQE	R	-	95.00%	2.3	0.225	0	1	0	0	2	1,514.58	301	313	TRUE	
SNU216_PC4_03	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	3	5	0.03%	4.39%	KETPPPLVPPAAR	R	E	95.00%	2.56	0.428	0	2	1	0	2	1,452.76	3	15	TRUE	
SNU216_PC4_03	Methylosome protein 50	IPI00012202	36,723.20	99.80%	2	3	5	0.03%	4.39%	MRKETPPPLVPPAAR	-	E	95.00%	2.81	0.327	0	0	2	0	2	1,755.90	1	15	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	4	7	7	0.05%	11.30%	DGTAPPPQSPGSPGTGQDEEWSDEESPR	R	K	95.00%	5.18	0.526	0	1	1	0	2	2,990.20	334	361	TRUE	
SNU216_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	4	7	7	0.05%	11.30%	DGTAPPPQSPGSPGTGQDEEWSDEESPRK	R	A	95.00%	4.82	0.0546	0	1	1	0	2	3,118.29	334	362	TRUE	
SNU216_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	4	7	7	0.05%	11.30%	EKGGRSPDEVTLTSIVPTR	K	D	95.00%	3.79	0.442	0	0	1	0	2	2,122.05	315	333	TRUE	
SNU216_PC4_03	Protein kinase C and casein kinase substrate in n	IPI00329572	48,531.80	100.00%	4	7	7	0.05%	11.30%	GGRSPDEVTLTSIVPTR	K	D	95.00%	3.21	0.407	0	1	1	0	2	1,864.92	317	333	TRUE	
SNU216_PC4_03	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	10.80%	SLDMDSIIAEVK	R	A	79.90%	2.47	0.118	0	1	0	0	2	1,400.64	252	263	TRUE	
SNU216_PC4_03	Keratin, type II cytoskeletal 8	IPI00554648	53,575.00	100.00%	2	2	2	0.01%	10.80%	TTSGYAGGLSSAYGGLTSPGLSYSLGSSFGS(	K	T	94.80%	6.18	0.0391	0	0	1	0	2	3,805.69	414	453	TRUE	
SNU216_PC4_03	Splicing factor U2AF 65 kDa subunit	IPI00031556,IPI00552483,IP	53,728.40	99.90%	1	1	1	0.01%	2.95%	GAKEEHGGLIRSPR	R	H	95.00%	3.18	0.466	0	1	0	0	2	1,586.78	68	81	TRUE	
SNU216_PC4_03	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	99.90%	2	4	4	0.03%	9.97%	GKHSLDSDEEEDDDDGGSSK	K	Y	95.00%	3.47	0.413	0	1	1	0	2	2,201.80	43	62	TRUE	
SNU216_PC4_03	CD2 antigen cytoplasmic tail-binding protein 2	IPI00006103	37,647.20	99.90%	2	4	4	0.03%	9.97%	KGPGQPSSPQRLDR	R	L	95.00%	2.86	0.315	0	1	1	0	2	1,602.78	188	201	TRUE	
SNU216_PC4_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	NSASATTPLSGNSSR	R	R	95.00%	2.4	0.25	0	1	0	0	2	1,529.66	311	325	TRUE	
SNU216_PC4_03	LRR FLI-I interacting protein 2	IPI00007277	82,174.50	99.80%	2	3	3	0.02%	4.85%	RGSGDTSSLIDPDTSLSELR	R	D	95.00%	4.54	0.528	0	1	1	0	2	2,186.00	326	345	TRUE	
SNU216_PC4_03	Hypothetical protein C12orf43	IPI00100930	28,257.70	99.80%	1	1	1	0.01%	8.75%	EAAVSASDILQESAIHSPGTVEK	R	E	95.00%	4.15	0.344	0	0	1	0	2	2,419.14	164	186	TRUE	
SNU216_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	EKEISDDEAEEEKGEK	R	E	90.20%	3.15	0.205	0	0	1	0	2	1,944.80	221	236	TRUE	
SNU216_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	IEDVGSDEEDDSGK	K	D	95.00%	2.61	0.35	0	1	0	0	2	1,574.57	249	262	TRUE	
SNU216_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.73	0.416	0	1	1	0	2	1,817.70	249	264	TRUE	
SNU216_PC4_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	4	5	5	0.03%	4.56%	IEDVGSDEEDDSGKDKK	K	K	95.00%	4.2	0.434	0	1	0	0	2	1,945.79	249	265	TRUE	
SNU216_PC4_03	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	5	9	0.06%	7.59%	LGAGGGSPEKSPSAQELK	R	E	95.00%	4.74	0.467	0	3	2	0	2	1,792.85	13	30	TRUE	
SNU216_PC4_03	Isoform 1 of STIP1 homology and U box-containi	IPI00025156	34,857.00	100.00%	2	5	9	0.06%	7.59%	LGAGGGSPEKSPSAQELKEQGNR	R	L	95.00%	4.17	0.385	0	1	2	1	2	2,457.08	13	35	TRUE	
SNU216_PC4_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.03%	8.81%	EESEESEAEPVQR	R	T	95.00%	2.61	0.285	0	1	0	0	2	1,598.62	194	206	TRUE	
SNU216_PC4_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.03%	8.81%	EVSDSEAGGGPQGER	R	K	95.00%	3.07	0.465	0	1	0	0	2	1,554.61	368	382	TRUE	
SNU216_PC4_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.03%	8.81%	EVSDSEAGGGPQGERK	R	N	95.00%	2.36	0.3	0	1	0	0	2	1,682.70	368	383	TRUE	
SNU216_PC4_03	Isoform 1 of HIRA-interacting protein 3	IPI00304875	61,942.00	100.00%	4	4	4	0.03%	8.81%	TLDSDEERPRPAPPDWSHMR	R	G	95.00%	2.94	0.271	0	0	0	1	2	2,472.08	527	546	TRUE	
SNU216_PC4_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	KSLPAPVAQRPDSPGGGLQAPGQK	R	R	95.00%	3.9	0.525	0	0	1	0	2	2,436.24	96	119	TRUE	
SNU216_PC4_03	HABP4 protein	IPI00103004	34,365.00	99.80%	2	2	2	0.01%	7.79%	SLPAPVAQRPDSPGGGLQAPGQK	K	R	95.00%	3.72	0.462	0	0	1	0	2	2,308.15	97	119	TRUE	
SNU216_PC4_03	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.90%	LNTSDFQK	R	L	95.00%	1.98	0.295	1	1	0	0	2	1,032.44	264	271	TRUE	
SNU216_PC4_03	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.90%	RTEARSSDEENGPPSSPDLDR	K	I	94.00%	3.04	0.165	0	0	1	0	2	2,554.95	217	237	TRUE	
SNU216_PC4_03	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.90%	SLPVSVPVWGFK	K	E	95.00%	2.41	0.459	0	1	0	0	2	1,395.71	203	214	TRUE	
SNU216_PC4_03	CDNA FLJ30949 fis, clone HCASM1000021, weakl	IPI00306195,IPI00549786	29,262.80	100.00%	4	5	6	0.04%	14.90%	SSDEENGPPSSPDLDR	R	I	95.00%	3.1	0.308	0	2	0	0	2	1,861.65	222	237	TRUE	
SNU216_PC4_03	HIV TAT specific factor 1	IPI00013788	85,854.60	99.80%	2	3	3	0.02%	4.77%	EFDEDSDEKEEEEDTYEK	R	V	95.00%	2.65	0.24	0	0	1	0	2	2,345.83	619	636	TRUE	
SNU216_PC4_03	HIV TAT specific factor 1	IPI00013788	85,854.60	99.80%	2	3	3	0.02%	4.77%	VFDDESDEKEDEEYADEK	K	G	95.00%	4.03	0.388	0	1	1	0	2	2,271.83	637	654	TRUE	
SNU216_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.80%	EESEEEEDEDDEEEEEEEK	R	E	95.00%	3.9	0.644	0	1	0	0	2	2,465.79	30	48	TRUE	
SNU216_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.80%	EESEEEEDEDDEEEEEEEKEK	R	S	95.00%	5.04	0.685	0	1	1	0	2	2,722.93	30	50	TRUE	
SNU216_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.80%	EPEMPGPREESEEEEDEDDEEEEEEEKEK	K	S	95.00%	5.2	0.456	0	0	1	0	2	3,616.33	22	50	TRUE	
SNU216_PC4_03	Protein DEK	IPI00020021	42,675.90	100.00%	4	5	5	0.03%	12.80%	NKEESSDDEDKESEEEPPK	K	K	95.00%	2.21	0.371	0	1	0	0	2	2,460.83	239	257	TRUE	
SNU216_PC4_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	99.80%	2	2	2	0.01%	7.78%	AGLGSPERPPK	R	T	95.00%	2.26	0.24	0	1	0	0	2	1,188.58	54	64	TRUE	
SNU216_PC4_03	Hypothetical protein FLJ22321	IPI00012199	40,236.10	99.80%	2	2	2	0.01%	7.78%	LGGLRPESPESLTSVSR	R	T	95.00%	2.66	0.334	0	1	0	0	2	1,864.92	11	27	TRUE	
SNU216_PC4_03	Density-regulated protein	IPI00306280	22,285.70	99.80%	1	1	1	0.01%	13.10%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	5.19	0.449	0	0	1	0	2	2,797.24	69	94	TRUE	
SNU216_PC4_03	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	4.39%	LSSGFDDIDLPSAVK	R	Y	95.00%	3.6	0.413	0	0	1	0	2	1,643.76	312	326	TRUE	
SNU216_PC4_03	Plakophilin-3	IPI00026952	87,084.70	99.80%	2	2	2	0.01%	4.39%	YLMASDPNLQVLGAAYIQHK	K	C	95.00%	3.33	0.219	0	0	1	0	2	2,312.11	327	346	TRUE	
SNU216_PC4_03	Calumenin precursor	IPI00014537	38,052.00	100.00%	2	3	3	0.02%	10.50%	DRVHHEPQLSDKVHNDAQSFDYDHDAFL(	K	T	95.00%	4.61	0.407	0	0	0	1	2	4,000.75	34	67	TRUE	
SNU216_PC4_03	Calumenin precursor	IPI00014537	38,052.00	100.00%	2	3	3	0.02%	10.50%	VHHEPQLSDKVHNDAQSFDYDHDAFLGAI	R	T	95.00%	4.74	0.417	0	0	1	1	2	3,729.62	36	67	TRUE	
SNU216_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	99.80%	2	3	3	0.02%	11.90%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	3.78	0.504	0	1	1	0	2	2,375.94	172	191	TRUE	
SNU216_PC4_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	99.80%	2	3	3	0.02%	11.90%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.32	0.438	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216_PC4_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	QSVDKVTSPTKV	K	-	95.00%	2.83	0.244	0	1	0	0	2	1,368.68	521	532	TRUE	
SNU216_PC4_03	Isoform 4 of Caldesmon	IPI00218696,IPI00333771	61,213.30	100.00%	2	3	3	0.02%	4.65%	RGSIGENQIKDEK	K	I	95.00%	3.68	0.261	0	1	1	0	2	1,553.73	194	206	TRUE	
SNU216_PC4_03	23 kDa protein	IPI00002821,IPI00069693,IP	23,259.00	99.80%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	95.00%	1.79	0.32	0	1	0	0	2	978.5385	133	141	TRUE	
SNU216_PC4_03	Isoform 2 of DNA-binding protein A	IPI00219147	31,946.60	99.80%	1	1	1	0.01%	6.27%	AGEAPTENPAPPTQQSSAE	K	-	95.00%	3.09	0.332	0	1	0	0	2	1,961.81	285	303	TRUE	
SNU216_PC4_03	Zinc transporter SLC39A7	IPI00021888,IPI00478086	46,321.10	100.00%	1	1	1	0.01%	2.77%	EKQSSEEEEKETR	K	G	95.00%	2.51	0.334	0	0	1	0	2	1,768.67	272	284	TRUE	
SNU216_PC4_03	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	2	2	3	0.02%	9.67%	ELTDEEAER	K	L	95.00%	1.86	0.272	0	1	0	0	2	1,171.45	106	114	TRUE	
SNU216_PC4_03	Nuclear migration protein nudC	IPI00550746	38,243.70	100.00%	2	2	3	0.02%	9.67%	NGSLDSPGKQDTEEDEEEDEKDK	K	G	95.00%	5.51	0.468	0	0	2	0	2	2,674.05	134	156	TRUE	
SNU216_PC4_03	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.80%	2	3	4	0.03%	6.46%	GTGQSDDSDIWDDTALIK	R	A	95.00%	2.68	0.387	0	1	0	0	2	2,096.81	24	41	TRUE	
SNU216_PC4_03	Isoform SMN of Survival motor neuron protein	IPI00003394,IPI00009597,IP	27,136.10	99.80%	2	3	4	0.03%	6.46%	RGTGQSDDSDIWDDTALIK	R	A	95.00%	4.42	0.456	0	2	1	0	2	2,172.95	23	41	TRUE	
SNU216_PC4_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	3	3	0.02%	10.40%	LPLVPESPRR	R	M	86.20%	1.9	0.294	0	1	0	0	2	1,243.66	315	324	TRUE	
SNU216_PC4_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	3	3	0.02%	10.40%	SMGTGDTPGLEVPSSPLRK	R	A	95.00%	4.17	0.425	0	0	1	0	2	2,008.94	381	399	TRUE	
SNU216_PC4_03	Isoform 1 of Nuclear-interacting partner of ALK	IPI00301421,IPI00339382	55,262.10	100.00%	3	3	3	0.02%	10.40%	SQDATFSPGSEQAEKSPGPIVSR	R	T	95.00%	4.13	0.12	0	0	1	0	2	2,455.11	329	351	TRUE	
SNU216_PC4_03	Tumor necrosis factor receptor superfamily mem	IPI00004413	71,845.00	98.60%	1	1	1	0.01%	2.75%	LENSALLTVEPSPQDKNK	K	G	95.00%	3.58	0.266	0	1	0	0	2	2,063.01	530	547	TRUE	
SNU216_PC4_03	P40	IPI00164951,IPI00298454,IP	39,947.80	99.60%	2	2	2	0.01%	7.40%	SSSPATEQSWMENDFDELR	R	E	92.10%	4.03	0.0358	0	0	1	0	2	2,308.91	25	43	TRUE	
SNU216_PC4_03	P40	IPI00164951,IPI00298454,IP	39,947.80	99.60%	2	2	2	0.01%	7.40%	SSSPATEQSWMENDFDELREEGFRR	R	S	95.00%	4.3	0.373	0	0	0	1	2	3,083.28	25	49	TRUE	
SNU216_PC4_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	3	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.55	0.425	0	2	0	0	2	1,796.71	490	504	TRUE	
SNU216_PC4_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	99.80%	2	2	3	0.02%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	3.78	0.351	0	0	1	0	2	2,081.86	488	504	TRUE	
SNU216_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	7	11	0.07%	19.50%	AHTPTPGIYMGR	K	P	95.00%	1.97	0.341	0	1	1	0	2	1,380.61	200	211	TRUE	
SNU216_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	7	11	0.07%	19.50%	AHTPTPGIYMGRPTHSGGGGGGGGGGGGG	K	R	95.00%	6.07	0.57	0	0	2	2	2	2,871.25	200	232	TRUE	
SNU216_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	7	11	0.07%	19.50%	RAHTPTPGIYMGR	K	P	95.00%	2.49	0.245	0	0	1	0	2	1,536.71	199	211	TRUE	
SNU216_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	7	11	0.07%	19.50%	RAHTPTPGIYMGRPTHSGGGGGGGGGGGG	K	R	95.00%	6.25	0.517	0	0	0	3	2	3,027.35	199	232	TRUE	
SNU216_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	7	11	0.07%	19.50%	RSPSPYYSR	R	Y	95.00%	2.38	0.229	1	1	0	0	2	1,272.48	259	267	FALSE	IPI00555647,IPI00301503
SNU216_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	7	11	0.07%	19.50%	SPSPYYSR	R	Y	95.00%	1.64	0.29	2	0	0	0	2	1,116.38	260	267	FALSE	IPI00555647,IPI00301503
SNU216_PC4_03	Isoform Long of Transformer-2 protein homolog	IPI00013891	32,689.40	100.00%	5	7	11	0.07%	19.50%	SQSKSPTGTPAR	R	V	95.00%	2.08	0.354	0	1	0	0	2	1,456.53	16	27	TRUE	
SNU216_PC4_03	Isoform 1 of ADP-ribosylation factor GTPase-activ	IPI00175169,IPI00217354	45,675.50	99.80%	1	2	2	0.01%	3.94%	RSSDSWEVWGSASTNR	R	N	95.00%	2.97	0.259	0	1	1	0	2	1,904.79	367	382	TRUE	
SNU216_PC4_03	Isoform 2 of PHD finger protein 6	IPI00397700,IPI00552149	36,430.40	99.80%	2	2	2	0.01%	8.33%	KTAHNSEAADLEESFNEHELEPSSPK	K	S	95.00%	3.5	0.209	0	0	0	1	2	2,976.29	133	158	TRUE	
SNU216_PC4_03	Isoform 2 of PHD finger protein 6	IPI00397700,IPI00552149	36,430.40	99.80%	2	2	2	0.01%	8.33%	TAHNSEAADLEESFNEHELEPSSPK	K	S	95.00%	7.49	0.57	0	0	1	0	2	2,848.19	134	158	TRUE	
SNU216_PC4_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.52%	GEIKDSSPSSSPSPK	K	G	93.60%	3.66	0.0586	0	1	0	0	2	1,662.67	333	347	TRUE	
SNU216_PC4_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.52%	NKDSGSDTASAIIPSTTPSVDSDDESVVK	K	D	84.90%	6.23	0.0114	0	0	1	0	2	3,002.34	181	209	TRUE	
SNU216_PC4_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.52%	NKDSGSDTASAIIPSTTPSVDSDDESVVKDK	K	K	88.60%	5.97	0.0273	0	0	1	0	2	3,245.46	181	211	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC4_03	Isoform 1 of Rab11 family-interacting protein 1	IPI00419433	137,197.60	100.00%	4	4	4	0.03%	4.52%	RSSLLSLMTGKK	R	D	95.00%	2.75	0.202	0	0	1	0	2	1,400.73	433	444	TRUE	
SNU216_PC4_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	QAHDLSPAAESSSTFSFSGR	R	D	95.00%	3.87	0.405	0	0	1	0	2	2,161.92	216	235	TRUE	
SNU216_PC4_03	Isoform 2 of Supervillin	IPI00018370	200,795.40	99.80%	2	2	2	0.01%	2.01%	SPSFGDPQLSPEARPR	R	C	95.00%	2.38	0.279	0	1	0	0	2	1,820.83	261	276	TRUE	
SNU216_PC4_03	Isoform 1 of Protein C18orf25	IPI00059687,IPI00152407	43,394.00	99.80%	1	1	1	0.01%	4.95%	RDSSESQLASTESDKPTTGR	R	V	95.00%	6.24	0.545	0	0	1	0	2	2,231.98	64	83	TRUE	
SNU216_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	3	4	4	0.03%	6.60%	ETSVSKEDTDHEEK	K	A	95.00%	2.49	0.34	0	0	1	0	2	1,713.69	114	127	TRUE	
SNU216_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	3	4	4	0.03%	6.60%	ETSVSKEDTDHEEKASNEDVTK	K	A	95.00%	3.69	0.191	0	0	1	1	2	2,558.08	114	135	TRUE	
SNU216_PC4_03	Isoform 1 of PC4 and SFRS1-interacting protein	IPI00028122	60,103.90	100.00%	3	4	4	0.03%	6.60%	QSNASSDVEVEEK	K	E	95.00%	2.81	0.298	0	1	0	0	2	1,501.61	101	113	TRUE	
SNU216_PC4_03	Hypothetical protein LEREPO4	IPI00000279,IPI00479433	47,144.10	99.80%	1	1	1	0.01%	3.52%	AENGERSDLEEDNER	R	E	95.00%	2.74	0.296	0	1	0	0	2	1,842.71	375	389	TRUE	
SNU216_PC4_03	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	4	5	5	0.03%	5.90%	ADREVQAEQPSSSSPR	K	R	95.00%	2.48	0.38	0	1	1	0	2	1,823.79	175	190	TRUE	
SNU216_PC4_03	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	4	5	5	0.03%	5.90%	ADREVQAEQPSSSSPRR	K	K	95.00%	3.3	0.298	0	0	1	0	2	1,979.89	175	191	TRUE	
SNU216_PC4_03	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	4	5	5	0.03%	5.90%	EKADREVQAEQPSSSSPR	K	R	95.00%	3.28	0.334	0	0	1	0	2	2,080.93	173	190	TRUE	
SNU216_PC4_03	RNA-binding motif protein, X-linked 2	IPI00032597	37,336.50	100.00%	4	5	5	0.03%	5.90%	EVQAEQPSSSSPR	R	R	95.00%	3.52	0.401	0	1	0	0	2	1,481.63	178	190	TRUE	
SNU216_PC4_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	91.90%	2.36	0.211	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC4_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	5.83	0.49	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216_PC4_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	4	4	0.03%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	3.82	0.498	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216_PC4_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	4	4	0.03%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.16	0.245	0	0	1	1	2	2,858.38	8	33	TRUE	
SNU216_PC4_03	Vasodilator-stimulated phosphoprotein	IPI00301058	39,697.90	100.00%	1	1	1	0.01%	4.22%	KVSKQEEASGGPTAPK	R	A	95.00%	2.85	0.492	0	1	0	0	2	1,693.82	236	251	TRUE	
SNU216_PC4_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.80%	2	2	3	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGK	R	R	95.00%	3.22	0.355	0	0	1	0	2	2,926.25	191	216	TRUE	
SNU216_PC4_03	Isoform 5 of Splicing factor 1	IPI00386119	80,490.30	99.80%	2	2	3	0.02%	3.54%	TGDLGIPPNPEDRSPSPEPIYNSEGKR	R	L	95.00%	4.2	0.152	0	0	2	0	2	3,082.36	191	217	TRUE	
SNU216_PC4_03	CDNA FLJ90478 fis, clone NT2RP3002790	IPI00168336,IPI00514106	56,976.70	99.80%	1	1	1	0.01%	2.78%	ASVRGSSEEDEDAR	R	T	95.00%	2.47	0.333	0	1	0	0	2	1,667.59	133	146	TRUE	
SNU216_PC4_03	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	100.00%	2	3	3	0.02%	4.72%	EDEISPPPPNPVVK	R	G	95.00%	3.36	0.388	0	1	0	0	2	1,597.75	79	92	TRUE	
SNU216_PC4_03	cAMP-dependent protein kinase type I-alpha regu	IPI00021831	42,982.40	100.00%	2	3	3	0.02%	4.72%	TDSREDEISPPPPNPVVK	R	G	95.00%	4.04	0.386	0	1	1	0	2	2,056.96	75	92	TRUE	
SNU216_PC4_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	99.40%	2	2	2	0.01%	3.42%	EAEDSDSDDNIKR	K	G	95.00%	2.22	0.327	0	1	0	0	2	1,653.57	507	519	TRUE	
SNU216_PC4_03	Isoform 1 of IWS1-like protein	IPI00296432	91,956.10	99.40%	2	2	2	0.01%	3.42%	HQASDSENEELPKPR	R	I	87.40%	2.28	0.25	0	1	0	0	2	1,896.75	232	246	TRUE	
SNU216_PC4_03	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	AGGSPASYHGSTSPR	K	V	95.00%	2.55	0.437	0	1	0	0	2	1,511.63	189	203	TRUE	
SNU216_PC4_03	Isoform 2 of Epsin-2	IPI00397380,IPI00397381	62,272.30	99.80%	2	2	2	0.01%	5.65%	GSSQPNLSTSHSEQEYGK	K	A	95.00%	2.9	0.366	0	0	1	0	2	2,015.83	171	188	TRUE	
SNU216_PC4_03	Importin alpha-2 subunit	IPI00002214	57,862.50	99.80%	1	1	1	0.01%	3.21%	NVSSFPDDATSPLQENR	R	N	95.00%	3.83	0.496	0	1	0	0	2	1,956.83	52	68	TRUE	
SNU216_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	11	14	0.09%	15.40%	AGDLLEDSPK	R	R	95.00%	2.36	0.117	1	1	0	0	2	1,124.49	158	167	TRUE	
SNU216_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	11	14	0.09%	15.40%	AGDLLEDSPKRPK	R	E	95.00%	3.24	0.212	0	1	2	0	2	1,505.74	158	170	TRUE	
SNU216_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	11	14	0.09%	15.40%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.6	0.339	0	1	2	0	2	2,204.90	127	146	TRUE	
SNU216_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	11	14	0.09%	15.40%	GNAEGSSDEEGKLVIDEPAKEK	K	N	95.00%	3.99	0.469	0	1	2	0	2	2,462.04	127	148	TRUE	
SNU216_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	11	14	0.09%	15.40%	KGNAEGSSDEEGKLVIDEPAK	K	E	95.00%	3.66	0.398	0	1	1	0	2	2,332.99	126	146	TRUE	
SNU216_PC4_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	6	11	14	0.09%	15.40%	RAGDLLEDSPK	R	R	95.00%	2.34	0.31	0	1	0	0	2	1,280.59	157	167	TRUE	
SNU216_PC4_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.80%	2	2	2	0.01%	2.70%	GPPQSPVFEGVYNNSR	K	M	95.00%	3.11	0.489	0	1	0	0	2	1,827.81	107	122	TRUE	
SNU216_PC4_03	Isoform 1 of Ataxin-2-like protein	IPI00456359,IPI00456361,IP	102,894.90	99.80%	2	2	2	0.01%	2.70%	QGSGRESPSLASR	R	E	95.00%	2.49	0.319	0	0	1	0	2	1,411.63	333	345	TRUE	
SNU216_PC4_03	Isoform 2 of Protein SET	IPI00301311	32,103.30	100.00%	1	2	3	0.02%	11.90%	ELNSNHDGADETSEKEQQEAIEHIDEVQNE	K	L	95.00%	5.47	0.509	0	0	1	2	2	3,901.66	12	44	TRUE	
SNU216_PC4_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	100.00%	1	1	2	0.01%	5.82%	SSGSPYGGGYGSGGGSGGYGSR	R	R	94.20%	4.41	0	0	2	0	0	2	1,990.76	355	376	TRUE	
SNU216_PC4_03	28 kDa protein	IPI00063387	28,278.70	99.80%	2	4	4	0.03%	7.91%	RTPAPPEPGSPAPGEGPSGR	R	K	95.00%	4.07	0.452	0	1	1	0	2	1,993.91	171	190	TRUE	
SNU216_PC4_03	28 kDa protein	IPI00063387	28,278.70	99.80%	2	4	4	0.03%	7.91%	TPAPPEPGSPAPGEGPSGR	R	K	95.00%	4.05	0.513	0	1	1	0	2	1,837.81	172	190	TRUE	
SNU216_PC4_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	5	5	0.03%	7.53%	SESPKEPEQLR	K	K	95.00%	2.74	0.317	0	1	1	0	2	1,379.62	4	14	TRUE	
SNU216_PC4_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	5	5	0.03%	7.53%	SESPKEPEQLRK	K	L	95.00%	3.07	0.327	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216_PC4_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	3	5	5	0.03%	7.53%	SSGPYGGGGQYFAKPR	R	N	95.00%	4.15	0.377	0	1	1	0	2	1,708.75	337	352	TRUE	
SNU216_PC4_03	Isoform 1 of Actin-like protein 6A	IPI00003627,IPI00216622	47,461.10	100.00%	1	1	1	0.01%	2.80%	EAVREGSPANWK	K	R	95.00%	2.42	0.225	0	1	0	0	2	1,423.64	227	238	TRUE	
SNU216_PC4_03	Thyroid hormone receptor-associated protein 3	IPI00104050	108,668.90	100.00%	1	1	1	0.01%	1.68%	ERSPALKSPLQSVVVR	R	R	95.00%	3.23	0.248	0	0	1	0	2	1,845.99	246	261	TRUE	
SNU216_PC4_03	Fibrillarin	IPI00025039	33,784.10	100.00%	1	2	2	0.01%	4.36%	RVSISEGDDKIEYR	K	A	95.00%	3.27	0.392	0	1	1	0	2	1,746.81	122	135	TRUE	
SNU216_PC4_03	Isoform 1 of Acyl-coenzyme A oxidase 1, peroxiso	IPI00296907,IPI00477729	74,687.50	100.00%	1	1	1	0.01%	3.33%	ERDSASFNPELLTHILDGSPEK	R	T	95.00%	4.78	0.395	0	0	1	0	2	2,535.18	8	29	TRUE	
SNU216_PC4_03	Isoform 1 of Polypyrimidine tract-binding protein	IPI00179964,IPI00183626,IP	57,222.50	100.00%	1	1	1	0.01%	2.26%	ELKTDSSPNQAR	K	A	95.00%	2.65	0.34	0	1	0	0	2	1,425.64	135	146	TRUE	
SNU216_PC4_03	Small acidic protein	IPI00003419	20,332.70	100.00%	2	2	2	0.01%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	3.39	0.359	0	0	1	0	2	2,671.09	14	37	TRUE	
SNU216_PC4_03	Small acidic protein	IPI00003419	20,332.70	100.00%	2	2	2	0.01%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	4.85	0.47	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC4_03	74 kDa protein	IPI00604517	74,428.20	99.80%	1	1	1	0.01%	5.09%	KEDSDEEEDDDSEEDEEDDEDEDEDEDEIEF	K	A	95.00%	4.66	0.67	0	0	1	0	2	4,279.38	119	153	TRUE	
SNU216_PC5_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	7	24	0.14%	12.10%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	5.44	0.562	0	2	7	0	2	2,517.99	234	254	TRUE	
SNU216_PC5_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	7	24	0.14%	12.10%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	4.96	0.632	0	10	2	0	2	2,389.89	235	254	TRUE	
SNU216_PC5_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	7	24	0.14%	12.10%	VEEEQEADEEDVSEEEAESKEGTNK	K	D	95.00%	5.11	0.46	0	0	1	0	2	2,919.14	235	259	TRUE	
SNU216_PC5_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	100.00%	4	7	24	0.14%	12.10%	VEEEQEADEEDVSEEEAESKEGTNKDFPQN.	K	Q	95.00%	5.49	0.391	0	0	1	1	2	3,860.61	235	267	TRUE	
SNU216_PC5_03	Splicing factor, arginine/serine-rich 9	IPI00012340	25,542.90	100.00%	1	1	1	0.01%	3.62%	STSYGYSR	R	S	95.00%	1.81	0.275	0	1	0	0	2	1,000.38	187	194	TRUE	
SNU216_PC5_03	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	3	3	3	0.02%	15.70%	KSPRPAGPQLFLPDPDPQR	R	G	95.00%	4.11	0.421	0	0	1	0	2	2,196.10	151	169	TRUE	
SNU216_PC5_03	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	3	3	3	0.02%	15.70%	LAAAEETAVSPR	R	K	95.00%	2.75	0.447	0	1	0	0	2	1,294.60	139	150	TRUE	
SNU216_PC5_03	Hypothetical protein C9orf142	IPI00030968	21,640.20	100.00%	3	3	3	0.02%	15.70%	RLAAAEETAVSPR	R	K	95.00%	3.24	0.43	0	0	1	0	2	1,450.71	138	150	TRUE	
SNU216_PC5_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	2	3	3	0.02%	6.19%	SEVQQPVHPKPLSPDSR	K	A	95.00%	3.2	0.394	0	0	1	0	2	1,980.95	350	366	TRUE	
SNU216_PC5_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	2	3	3	0.02%	6.19%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	6.55	0.571	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216_PC5_03	RNA binding motif protein 25	IPI00004273	100,189.10	99.80%	2	3	3	0.02%	1.78%	LGASNSPGQPNSVK	K	R	95.00%	2.53	0.347	0	1	0	0	2	1,435.66	672	685	TRUE	
SNU216_PC5_03	RNA binding motif protein 25	IPI00004273	100,189.10	99.80%	2	3	3	0.02%	1.78%	LGASNSPGQPNSVKR	K	K	95.00%	3.2	0.351	0	1	1	0	2	1,591.76	672	686	TRUE	
SNU216_PC5_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	4.20%	GLLYDSDEEDEERPAR	R	K	95.00%	2.52	0.224	0	1	0	0	2	1,973.81	134	149	TRUE	
SNU216_PC5_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	4.20%	GNDPLTSSPGR	R	S	95.00%	2.2	0.308	0	1	0	0	2	1,180.50	20	30	TRUE	
SNU216_PC5_03	DNA replication licensing factor MCM2	IPI00184330	101,898.10	100.00%	3	3	3	0.02%	4.20%	RTDALTSSPGR	R	D	92.20%	1.97	0.276	0	1	0	0	2	1,240.57	34	44	TRUE	
SNU216_PC5_03	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	100.00%	3	4	4	0.02%	10.70%	QQDPSPGSNLGGGDDLK	R	L	95.00%	3.65	0.363	0	1	0	0	2	1,764.74	169	185	TRUE	
SNU216_PC5_03	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	100.00%	3	4	4	0.02%	10.70%	RQQDPSPGSNLGGGDDLK	R	L	95.00%	3.46	0.366	0	1	1	0	2	1,920.85	168	185	TRUE	
SNU216_PC5_03	core-binding factor, beta subunit isoform 1	IPI00024871	21,991.70	100.00%	3	4	4	0.02%	10.70%	RQQDPSPGSNLGGGDDLKLR	R	-	95.00%	3.32	0.404	0	0	1	0	2	2,190.03	168	187	TRUE	
SNU216_PC5_03	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	3	4	0.02%	11.80%	EPVADEEEEDSDDDVEPITEFR	K	F	95.00%	3.35	0.366	0	1	0	0	2	2,645.03	92	113	TRUE	
SNU216_PC5_03	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	2	3	4	0.02%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	6.79	0.613	0	0	2	1	2	3,394.35	86	113	TRUE	
SNU216_PC5_03	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSER	R	E	95.00%	2.59	0.474	0	1	0	0	2	1,418.54	194	207	TRUE	
SNU216_PC5_03	Probable D-tyrosyl-tRNA(Tyr) deacylase	IPI00152692	23,423.60	100.00%	2	2	4	0.02%	7.66%	SASSGAEGDVSSEREP	R	-	95.00%	3.4	0.51	0	3	0	0	2	1,644.64	194	209	TRUE	
SNU216_PC5_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	3	4	0.02%	3.37%	FNDSEGDDTEETEDYR	K	Q	95.00%	3.58	0.562	0	2	0	0	2	2,001.69	394	409	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	3	4	0.02%	3.37%	LKDLFDYSPPLHK	K	N	93.20%	2.27	0.217	0	1	0	0	2	1,652.81	505	517	TRUE	
SNU216_PC5_03	Isoform 1 of Bcl-2-associated transcription factor	IPI00006079,IPI00413671,IP	106,125.30	100.00%	3	3	4	0.02%	3.37%	QKFNDSEGDDTEETEDYR	K	Q	95.00%	2.82	0.32	0	0	1	0	2	2,257.84	392	409	TRUE	
SNU216_PC5_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	DEILPTTPISEQK	K	G	95.00%	2.48	0.399	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC5_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	2	3	3	0.02%	10.70%	KPLPDHVSIVEPKDEILPTTPISEQK	K	G	95.00%	6.34	0.549	0	0	1	1	2	2,990.55	202	227	TRUE	
SNU216_PC5_03	DNA polymerase epsilon subunit 3	IPI00010141	16,859.90	99.80%	1	1	1	0.01%	13.60%	TDSEEQDKSRDEDNDEDEER	K	L	95.00%	2.82	0.394	0	0	1	0	2	2,520.91	114	133	TRUE	
SNU216_PC5_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	3	4	4	0.02%	8.25%	IGEGTYGVVYK	K	G	95.00%	2.87	0.458	1	1	0	0	2	1,265.58	10	20	TRUE	IPI00031681
SNU216_PC5_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	3	4	4	0.02%	8.25%	IGEGTYGVVYKGR	K	H	95.00%	2.3	0.381	0	1	0	0	2	1,558.67	10	22	TRUE	
SNU216_PC5_03	Hypothetical protein DKFZp686L20222	IPI00026689	34,780.10	100.00%	3	4	4	0.02%	8.25%	VYTHEVVTLWYR	R	S	95.00%	2.71	0.196	0	0	1	0	2	1,645.78	165	176	TRUE	
SNU216_PC5_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	4	4	0.02%	6.33%	DYEIESQNPLASPTNTLLGSAK	K	E	95.00%	4.17	0.387	0	1	1	0	2	2,428.13	618	639	TRUE	
SNU216_PC5_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	4	4	0.02%	6.33%	NDSWGSFDLR	R	A	95.00%	2.22	0.437	0	1	0	0	2	1,276.50	650	659	TRUE	
SNU216_PC5_03	FMRP interacting protein, 82kD	IPI00002349	76,121.10	100.00%	3	4	4	0.02%	6.33%	RTSPQVLGSILK	K	S	95.00%	2.89	0.347	0	1	0	0	2	1,378.75	570	581	TRUE	
SNU216_PC5_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	4	0.02%	10.50%	KSLDSDESEDEEDDYQQK	K	R	95.00%	3.1	0.327	0	1	0	0	2	2,319.81	56	73	TRUE	
SNU216_PC5_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	4	0.02%	10.50%	SLDSDESEDEEDDYQQK	K	R	95.00%	4.94	0.618	0	1	0	0	2	2,111.75	57	73	TRUE	
SNU216_PC5_03	28 kDa heat- and acid-stable phosphoprotein	IPI00013297	20,630.80	100.00%	3	4	4	0.02%	10.50%	SLDSDESEDEEDDYQQKR	K	K	95.00%	4.05	0.495	0	1	1	0	2	2,347.81	57	74	TRUE	
SNU216_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELK	K	R	95.00%	3.54	0.33	0	1	1	0	2	2,026.88	46	63	TRUE	
SNU216_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	SQRYSGAYGASVSDEELKR	K	R	91.20%	5.49	0.0286	0	0	1	0	2	2,182.98	46	64	TRUE	
SNU216_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELK	R	R	95.00%	3.09	0.409	0	1	0	0	2	1,655.68	49	63	TRUE	
SNU216_PC5_03	Coiled-coil-helix-coiled-coil-helix domain-containi	IPI00015833	26,152.50	100.00%	4	5	5	0.03%	8.37%	YSGAYGASVSDEELKR	R	R	87.20%	2.77	0.148	0	1	0	0	2	1,811.78	49	64	TRUE	
SNU216_PC5_03	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	100.00%	1	2	2	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	4.01	0.445	0	0	1	1	2	1,800.96	35	48	TRUE	
SNU216_PC5_03	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	2	2	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	4.12	0.552	0	1	1	0	2	1,622.85	54	68	TRUE	
SNU216_PC5_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	IEEVLSPEGSPSKSPSK	K	K	95.00%	3.4	0.339	0	1	0	0	2	1,850.88	636	652	TRUE	
SNU216_PC5_03	Isoform 1 of Gamma-adducin	IPI00220754	75,672.50	99.80%	2	2	2	0.01%	3.12%	SPEKIEEVLSPEGSPSKSPSK	K	K	95.00%	5.33	0.43	0	0	1	0	2	2,292.10	632	652	TRUE	
SNU216_PC5_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.56%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	4.38	0.35	0	0	1	0	2	2,297.07	217	235	TRUE	
SNU216_PC5_03	76 kDa protein	IPI00743778	75,757.70	99.80%	2	2	2	0.01%	6.56%	VNFSEEGETEEDDQDSSHSSVTTVK	K	A	95.00%	7.25	0.582	0	0	1	0	2	2,836.13	300	324	TRUE	
SNU216_PC5_03	Astrocytic phosphoprotein PEA-15	IPI00014850,IPI00643342	17,307.60	99.90%	1	1	1	0.01%	11.50%	YKDIIRQPSEEEIIK	K	L	95.00%	3.02	0.179	0	0	1	0	2	1,940.97	129	143	TRUE	
SNU216_PC5_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	99.80%	2	2	2	0.01%	2.33%	AQAVSEEEEEEEGK	K	S	95.00%	2.73	0.363	0	1	0	0	2	1,643.63	78	91	TRUE	
SNU216_PC5_03	ATP-dependent RNA helicase DDX24	IPI00006987	96,334.70	99.80%	2	2	2	0.01%	2.33%	KAQAVSEEEEEEEGKSSSPK	R	K	95.00%	2.85	0.211	0	0	1	0	2	2,257.97	77	96	TRUE	
SNU216_PC5_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	99.80%	2	2	3	0.02%	2.92%	EIQNGNLHESDSESVPR	K	D	95.00%	3.15	0.388	0	2	0	0	2	1,990.85	66	82	TRUE	
SNU216_PC5_03	Isoform 2 of Kinectin	IPI00337736	149,611.50	99.80%	2	2	3	0.02%	2.92%	KVEPVPVTKQPTPPSEAAASK	K	K	95.00%	4.19	0.433	0	0	1	0	2	2,241.15	142	162	TRUE	
SNU216_PC5_03	Lamina-associated polypeptide 2 isoform alpha	IPI00216230	75,362.60	99.90%	1	1	3	0.02%	3.75%	GPPDFSSDEEREPTPVLGSGAAAAGR	K	S	95.00%	4.22	0.503	0	0	3	0	2	2,650.18	60	85	TRUE	IPI00030131
SNU216_PC5_03	Similar to Protein phosphatase 1 regulatory subur	IPI00398922	20,965.20	100.00%	1	1	1	0.01%	12.60%	VYFQSPPGAAGEGPGGADDEGPVRR	R	Q	87.30%	3.08	0.152	0	0	1	0	2	2,566.14	80	104	TRUE	
SNU216_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	6	6	0.04%	26.60%	KVASGVLSPPPAAPPPSSSSVPEAGGPPIKK	K	Q	95.00%	4.23	0.366	0	0	1	1	2	2,986.57	103	133	TRUE	
SNU216_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	6	6	0.04%	26.60%	KVYEDSGIPLPAESPK	R	K	95.00%	4.71	0.407	0	0	1	0	2	1,809.87	83	98	TRUE	
SNU216_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	6	6	0.04%	26.60%	VYEDSGIPLPAESPK	K	K	95.00%	3.19	0.408	0	1	0	0	2	1,681.77	84	98	TRUE	
SNU216_PC5_03	Homeodomain-like containing protein	IPI00373869	19,961.30	100.00%	4	6	6	0.04%	26.60%	VYEDSGIPLPAESPKKGPK	K	K	95.00%	3.4	0.424	0	1	1	0	2	2,092.04	84	102	TRUE	
SNU216_PC5_03	Acidic leucine-rich nuclear phosphoprotein 32 fan	IPI00025849	28,586.10	100.00%	1	1	1	0.01%	6.43%	NRTPSDVKELVLDNSR	R	S	95.00%	2.93	0.404	0	0	1	0	2	1,922.93	13	28	TRUE	
SNU216_PC5_03	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	2	0.01%	15.30%	RIDFTPVSPAPSPTR	K	G	95.00%	2.54	0.298	0	1	0	0	2	1,800.81	108	122	TRUE	
SNU216_PC5_03	Hypothetical protein DKFZp686L20116	IPI00749302	27,016.30	99.80%	2	2	2	0.01%	15.30%	SSSAPLIHGLSDLSQVFQPYTLR	R	T	95.00%	3.18	0.265	0	0	1	0	2	2,596.28	23	45	TRUE	
SNU216_PC5_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	25.90%	EAEEGEDDRDSANGEDDS	K	-	95.00%	2.75	0.443	0	1	0	0	2	2,019.66	276	293	TRUE	
SNU216_PC5_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	25.90%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.33	0.44	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216_PC5_03	Isoform C1 of Heterogeneous nuclear ribonucleop	IPI00216592	32,338.00	100.00%	3	3	3	0.02%	25.90%	QAVEMKNDKSEEEQSSSSVK	K	K	95.00%	3.32	0.28	0	0	1	0	2	2,320.00	211	230	TRUE	
SNU216_PC5_03	golgi SNAP receptor complex member 1 isoform	IPI00477701	28,294.70	100.00%	1	1	1	0.01%	6.85%	RDSSDTTPLLNGSSQDR	R	M	94.80%	3.73	0.0973	0	1	0	0	2	1,928.83	47	63	TRUE	
SNU216_PC5_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	2	4	4	0.02%	7.30%	RGSDPASGEVEASQLR	R	R	95.00%	4.02	0.51	0	1	1	0	2	1,738.78	105	120	TRUE	
SNU216_PC5_03	CDNA FLJ35151 fis, clone PLACE6010701	IPI00168036,IPI00291738	22,293.80	100.00%	2	4	4	0.02%	7.30%	RRGSDPASGEVEASQLR	R	R	95.00%	4.16	0.44	0	1	1	0	2	1,894.88	104	120	TRUE	
SNU216_PC5_03	Tetratricopeptide repeat protein KIAA0103	IPI00014149	34,834.80	100.00%	1	1	1	0.01%	4.71%	YFAQALKLNNRNMR	K	A	95.00%	2.71	0.231	0	1	0	0	2	1,818.88	214	227	TRUE	
SNU216_PC5_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	3	5	9	0.05%	20.40%	ATAPQTQHVSPMR	R	Q	95.00%	2.61	0.346	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC5_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	3	5	9	0.05%	20.40%	KPATPAEDDEDDDIDLFGSDNEEEDKEAAQ	K	E	95.00%	7.58	0.555	0	0	3	3	2	3,657.52	143	174	TRUE	
SNU216_PC5_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	3	5	9	0.05%	20.40%	LNVLEKSSPGHR	R	A	94.10%	2.27	0.2	0	1	1	0	2	1,416.70	111	122	TRUE	
SNU216_PC5_03	steroid receptor RNA activator 1	IPI00102313	25,843.00	99.80%	2	2	2	0.01%	11.40%	APRSPPVGSGPASGVEPTSFPVESEAR	K	L	95.00%	5.77	0.0986	0	0	1	0	2	2,745.29	84	110	TRUE	
SNU216_PC5_03	steroid receptor RNA activator 1	IPI00102313	25,843.00	99.80%	2	2	2	0.01%	11.40%	SPPVGSGPASGVEPTSFPVESEAR	R	L	95.00%	3.67	0.23	0	0	1	0	2	2,421.10	87	110	TRUE	
SNU216_PC5_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	3.63%	QVLQSTQSPR	R	T	95.00%	2.39	0.201	0	1	0	0	2	1,223.58	972	981	TRUE	
SNU216_PC5_03	Isoform A of A-kinase anchor protein 2	IPI00032064,IPI00171217,IP	122,072.40	99.80%	2	2	2	0.01%	3.63%	VKPPPSPTTEGPSLQPDLAPEEAAGTQRPK	K	N	95.00%	4.05	0.344	0	0	0	1	2	3,175.57	1004	1033	TRUE	
SNU216_PC5_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	14	0.08%	60.00%	KEESEESDDDMGFGLFD	K	-	95.00%	3.72	0.55	0	12	0	0	2	2,029.73	99	115	TRUE	
SNU216_PC5_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	14	0.08%	60.00%	LASVPAGGAVAVSAAPGSAAPAAGSAPAA	K	K	95.00%	3.44	0.419	0	0	1	0	2	2,854.40	62	94	TRUE	
SNU216_PC5_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	3	3	14	0.08%	60.00%	YVASYLLAALGGNSSPSAK	R	D	95.00%	3.79	0.372	0	1	0	0	2	1,948.94	3	21	TRUE	
SNU216_PC5_03	Phosphatidylethanolamine-binding protein 1	IPI00219446	20,925.70	100.00%	1	1	1	0.01%	8.06%	NRPTSISWDGLDSGK	K	L	95.00%	2.61	0.248	0	0	1	0	2	1,712.76	47	61	TRUE	
SNU216_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	6	9	12	0.07%	23.00%	ASGQAFELILSPR	R	S	95.00%	2.39	0.2	0	0	1	0	2	1,468.72	14	26	TRUE	
SNU216_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	6	9	12	0.07%	23.00%	ELEKRASGQAFELILSPR	K	S	95.00%	3.32	0.419	0	0	1	0	2	2,124.09	9	26	TRUE	
SNU216_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	6	9	12	0.07%	23.00%	ESVPEFPLSPPK	K	K	95.00%	2.16	0.418	0	2	0	0	2	1,406.66	29	40	TRUE	
SNU216_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	6	9	12	0.07%	23.00%	ESVPEFPLSPPKKK	K	D	95.00%	2.98	0.435	0	1	1	0	2	1,662.85	29	42	TRUE	
SNU216_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	6	9	12	0.07%	23.00%	RASGQAFELILSPR	K	S	95.00%	3.52	0.325	0	1	2	0	2	1,624.82	13	26	TRUE	
SNU216_PC5_03	Stathmin	IPI00479997	17,171.80	100.00%	6	9	12	0.07%	23.00%	SKESVPEFPLSPPK	R	K	95.00%	3.38	0.409	0	2	1	0	2	1,621.79	27	40	TRUE	
SNU216_PC5_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAK	-	K	95.00%	4.19	0.543	0	1	1	0	2	2,061.97	1	20	TRUE	
SNU216_PC5_03	Histone H1.5	IPI00217468	22,450.50	99.80%	2	3	3	0.02%	9.33%	SETAPAETATPAPVEKSPAKK	-	K	95.00%	3.09	0.368	0	0	1	0	2	2,190.07	1	21	TRUE	
SNU216_PC5_03	14-3-3 protein zeta/delta	IPI00021263	27,745.90	100.00%	1	1	1	0.01%	11.80%	TAFDEAIAELDTLSEESYKDSTLIMQLLR	K	D	94.10%	5.34	0.0644	0	0	1	0	2	3,382.60	194	222	TRUE	
SNU216_PC5_03	CD44 antigen isoform 4 precursor	IPI00297160,IPI00305064,IP	53,410.80	99.80%	1	3	5	0.03%	5.82%	KPSGLNGEASKSQEMVHLVNK	R	E	95.00%	6.37	0.548	0	1	1	3	2	2,333.13	446	466	TRUE	
SNU216_PC5_03	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	5	5	0.03%	17.60%	EEDEENDNDNESDHDEADS	R	-	95.00%	3.3	0.668	0	1	1	0	2	2,287.69	113	131	TRUE	
SNU216_PC5_03	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	5	5	0.03%	17.60%	EEKREEDEENDNDNESDHDEADS	K	-	95.00%	5.35	0.52	0	0	1	0	2	2,829.97	109	131	TRUE	
SNU216_PC5_03	Chromatin accessibility complex protein 1	IPI00010158	14,711.00	100.00%	3	5	5	0.03%	17.60%	REEDEENDNDNESDHDEADS	K	-	95.00%	2.68	0.549	0	1	1	0	2	2,443.79	112	131	TRUE	
SNU216_PC5_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	6.92	0.592	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC5_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.59	0.341	0	0	1	0	2	3,009.43	46	73	TRUE	
SNU216_PC5_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	3	5	5	0.03%	13.20%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	9.06	0.588	0	0	1	1	2	3,735.89	46	80	TRUE	
SNU216_PC5_03	Ran-specific GTPase-activating protein	IPI00414127	23,310.80	100.00%	1	1	1	0.01%	16.90%	DTHEDHDTSTENTDESNHDPQFEPIVSLPE(	K	T	95.00%	7.07	0.0668	0	0	1	0	2	4,013.68	6	39	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	3	4	4	0.02%	20.90%	GLLSDSMTDVPVDTGVAAR	K	T	95.00%	3.83	0.484	0	1	1	0	2	1,983.91	16	34	TRUE	
SNU216_PC5_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	3	4	4	0.02%	20.90%	NSATFKSFEDR	R	V	95.00%	2.76	0.344	0	1	0	0	2	1,381.58	183	193	TRUE	
SNU216_PC5_03	Isoform 1 of Tumor protein D54	IPI00306825,IPI00399265,IP	24,853.90	100.00%	3	4	4	0.02%	20.90%	SWHDVQVSSAYVK	R	T	95.00%	2.67	0.355	0	1	0	0	2	1,585.70	96	108	TRUE	
SNU216_PC5_03	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	3	3	0.02%	2.39%	EQLQPHENGEGNSET	R	-	95.00%	3.47	0.441	0	1	0	0	2	1,748.68	1034	1048	TRUE	
SNU216_PC5_03	Integrin alpha-V precursor	IPI00027505	116,055.10	99.80%	2	3	3	0.02%	2.39%	VRPPQEEQEREQLQPHENGEGNSET	R	-	95.00%	3.43	0.185	0	0	1	1	2	2,997.30	1024	1048	TRUE	
SNU216_PC5_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	6.42%	HKFQSQADQDQQASGLQSPPSR	R	D	95.00%	3.64	0.333	0	0	1	0	2	2,520.13	464	485	TRUE	
SNU216_PC5_03	CTTNBP2 N-terminal-like protein	IPI00514311	70,159.00	99.80%	2	2	2	0.01%	6.42%	VSSPLSPLSPGIKSPTIPR	K	A	95.00%	4.41	0.501	0	0	1	0	2	2,013.08	555	573	TRUE	
SNU216_PC5_03	Isoform Crk-II of Proto-oncogene C-crk	IPI00004838,IPI00305469,IP	22,905.90	100.00%	1	1	1	0.01%	5.92%	DSSTSPGDYVLSVSENSR	R	V	95.00%	3.24	0.397	0	1	0	0	2	1,979.82	39	56	TRUE	
SNU216_PC5_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	2	2	0.01%	10.00%	EESDGEYDEFGR	R	K	95.00%	2.5	0.494	0	1	0	0	2	1,512.52	118	129	TRUE	
SNU216_PC5_03	zinc finger protein 265 isoform 2	IPI00183794	36,319.20	99.80%	2	2	2	0.01%	10.00%	EVEDKESEGEEEDEDEDLSK	K	Y	95.00%	3.17	0.32	0	0	1	0	2	2,419.90	147	166	TRUE	
SNU216_PC5_03	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	1	2	3	0.02%	20.00%	PGPTPSGTNVGSSGRSPSK	-	A	95.00%	3.04	0.31	0	2	1	0	2	1,849.84	1	19	TRUE	
SNU216_PC5_03	Density-regulated protein	IPI00306280	22,285.70	100.00%	2	3	3	0.02%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEK	K	K	95.00%	4.53	0.504	0	1	1	0	2	2,797.24	69	94	TRUE	
SNU216_PC5_03	Density-regulated protein	IPI00306280	22,285.70	100.00%	2	3	3	0.02%	13.60%	LTVENSPKQEAGISEGQGTAGEEEEKK	K	K	95.00%	3.96	0.241	0	0	1	0	2	2,925.34	69	95	TRUE	
SNU216_PC5_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	3	3	0.02%	3.72%	QKSDAEEDGGTVSQEEEDR	K	K	95.00%	2.5	0.296	0	1	1	0	2	2,268.82	552	570	TRUE	
SNU216_PC5_03	Calnexin precursor	IPI00020984	67,570.20	100.00%	2	3	3	0.02%	3.72%	SDAEEDGGTVSQEEEDRKPK	K	A	94.80%	3.36	0.157	0	0	1	0	2	2,285.94	554	573	TRUE	
SNU216_PC5_03	Isoform 1 of RNA-binding protein 14	IPI00013174	69,492.30	99.80%	1	1	2	0.01%	1.35%	QPTPPFFGR	R	D	95.00%	1.92	0.322	0	2	0	0	2	1,126.51	204	212	TRUE	
SNU216_PC5_03	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	3	3	0.02%	9.68%	KVMDSDEDDDY	R	-	95.00%	2.45	0.345	1	0	0	0	2	1,411.46	114	124	TRUE	
SNU216_PC5_03	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	3	3	0.02%	9.68%	RKVMDSDEDDDY	R	-	95.00%	2.16	0.27	0	1	0	0	2	1,567.56	113	124	TRUE	
SNU216_PC5_03	Programmed cell death protein 5	IPI00023640	14,154.10	100.00%	3	3	3	0.02%	9.68%	VMDSDEDDDY	K	-	83.60%	1.73	0.241	0	1	0	0	2	1,283.37	115	124	TRUE	
SNU216_PC5_03	Isoform 1 of Apoptotic chromatin condensation i	IPI00007334	151,887.90	99.60%	1	1	1	0.01%	1.27%	SSSISEEKGDSDDEKPR	K	K	92.70%	2.14	0.226	0	1	0	0	2	1,945.80	206	222	TRUE	
SNU216_PC5_03	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	2	2	0.01%	7.30%	GADSGEEKEEGINR	K	E	95.00%	2.61	0.518	0	1	0	0	2	1,570.64	194	207	TRUE	
SNU216_PC5_03	Chromosome X open reading frame 26	IPI00107104	26,057.50	99.80%	2	2	2	0.01%	7.30%	GADSGEEKEEGINREDK	K	T	95.00%	2.93	0.325	0	0	1	0	2	1,942.80	194	210	TRUE	
SNU216_PC5_03	Nuclease sensitive element-binding protein 1	IPI00031812	35,792.60	100.00%	1	1	1	0.01%	6.19%	AADPPAENSSAPEAEQGGAE	K	-	95.00%	2.92	0.406	0	1	0	0	2	1,977.77	304	323	TRUE	
SNU216_PC5_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	ADLNQGIGEPQSPSR	R	R	95.00%	2.76	0.251	0	1	0	0	2	1,648.73	63	77	TRUE	
SNU216_PC5_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSR	R	R	95.00%	3.31	0.368	0	1	0	0	2	1,804.83	62	77	TRUE	
SNU216_PC5_03	EF-hand domain-containing protein 2	IPI00060181,IPI00552365	26,698.40	100.00%	3	3	3	0.02%	7.08%	RADLNQGIGEPQSPSRR	R	V	95.00%	3.49	0.331	0	0	1	0	2	1,960.94	62	78	TRUE	
SNU216_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	5.25%	ASPSKPASAPASR	K	S	95.00%	2.85	0.392	0	0	1	0	2	1,306.62	814	826	TRUE	
SNU216_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	5.25%	DMESPTKLDVTLAK	K	D	95.00%	3.5	0.327	0	1	1	0	2	1,627.77	305	318	TRUE	
SNU216_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	5.25%	ETERASPIKMDLAPSK	K	D	95.00%	3.07	0.252	0	0	1	0	2	1,852.89	407	422	TRUE	
SNU216_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	5.25%	RASPSKPASAPASR	K	S	95.00%	2.51	0.287	0	0	1	0	2	1,462.72	813	826	TRUE	
SNU216_PC5_03	Microtubule-associated protein 4 isoform 1 variar	IPI00745518	122,943.20	100.00%	5	6	6	0.04%	5.25%	VGSLDNVGHLPAGGAVK	K	I	95.00%	2.94	0.317	0	1	0	0	2	1,670.83	1099	1115	TRUE	
SNU216_PC5_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	3.99%	RPDPDSDEDEDYER	R	E	95.00%	3.85	0.623	0	1	0	0	2	1,817.65	57	70	TRUE	
SNU216_PC5_03	Splicing factor 45	IPI00176706,IPI00479589,IP	25,283.40	99.80%	2	2	2	0.01%	3.99%	RPDPDSDEDEDYERER	R	R	95.00%	3.14	0.262	0	0	1	0	2	2,102.79	57	72	TRUE	
SNU216_PC5_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.70%	2	2	2	0.01%	1.53%	ALSSLHGDDQSEDEVLTIPEVK	K	V	95.00%	5.4	0.516	0	1	0	0	2	2,577.16	2398	2420	TRUE	
SNU216_PC5_03	Cation-independent mannose-6-phosphate recep	IPI00289819	274,273.50	99.70%	2	2	2	0.01%	1.53%	LVSFHDDSDEDLLHI	K	-	94.40%	2.24	0.221	0	1	0	0	2	1,834.79	2477	2491	TRUE	
SNU216_PC5_03	FK506-binding protein 3	IPI00024157	25,177.40	100.00%	1	1	1	0.01%	6.25%	ETKSEETLDEGPPK	K	Y	95.00%	3	0.346	0	1	0	0	2	1,639.71	97	110	TRUE	
SNU216_PC5_03	Bcl-XL-binding protein v68	IPI00063242	28,006.30	100.00%	1	1	1	0.01%	6.67%	NVESGEEELASKLDHYK	R	A	95.00%	2.64	0.297	0	0	1	0	2	2,027.90	77	93	TRUE	
SNU216_PC5_03	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	100.00%	2	2	3	0.02%	10.20%	IQEQESSGEEDSDLSPEER	R	E	95.00%	4.04	0.564	0	2	0	0	2	2,243.88	116	134	TRUE	
SNU216_PC5_03	PPP1R2P3 protein	IPI00220402,IPI00410126	23,049.20	100.00%	2	2	3	0.02%	10.20%	IQEQESSGEEDSDLSPEEREK	R	K	95.00%	3.03	0.265	0	0	1	0	2	2,580.99	116	136	TRUE	
SNU216_PC5_03	Isoform 1 of PEST-containing nuclear protein	IPI00291608	18,925.40	100.00%	1	1	1	0.01%	13.50%	TLSVAAAFNEDEDSEPEEMPPEAK	K	M	95.00%	3.48	0.436	0	1	0	0	2	2,686.11	106	129	TRUE	
SNU216_PC5_03	MRG-binding protein	IPI00019451	22,416.80	99.90%	1	1	1	0.01%	9.31%	VTDKVLTANSNPSSPSAAK	R	R	95.00%	3.56	0.273	0	1	0	0	2	1,966.95	182	200	TRUE	
SNU216_PC5_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	5	7	0.04%	13.00%	HGESAWNLENR	R	F	90.10%	1.75	0.264	0	1	0	0	2	1,392.57	10	20	TRUE	
SNU216_PC5_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	5	7	0.04%	13.00%	RSYDVPPPPMEPDHPFYSNISK	R	D	95.00%	4.69	0.363	0	0	1	1	2	2,653.18	116	137	TRUE	
SNU216_PC5_03	Phosphoglycerate mutase 1	IPI00549725	28,673.60	100.00%	3	5	7	0.04%	13.00%	SYDVPPPPMEPDHPFYSNISK	R	D	95.00%	4.83	0.423	0	1	3	0	2	2,497.08	117	137	TRUE	
SNU216_PC5_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	9.90%	DIDHETVVEEQIIGENSPPDYSEYMTGK	K	K	95.00%	6.52	0.219	0	0	1	0	2	3,275.40	231	258	TRUE	
SNU216_PC5_03	Transcriptional repressor protein YY1	IPI00014513	44,711.70	100.00%	2	2	2	0.01%	9.90%	EEVVGGDDSDGLR	R	A	95.00%	2.81	0.418	0	1	0	0	2	1,427.57	110	122	TRUE	
SNU216_PC5_03	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	3	3	0.02%	9.39%	KLENSPLGEALR	K	S	95.00%	2.98	0.24	0	1	0	0	2	1,406.70	104	115	TRUE	
SNU216_PC5_03	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	3	3	0.02%	9.39%	LENSPLGEALR	K	S	95.00%	2.43	0.2	0	1	0	0	2	1,278.61	105	115	TRUE	
SNU216_PC5_03	Hypothetical protein FLJ20455	IPI00016405	27,626.80	100.00%	3	3	3	0.02%	9.39%	RSSPPGHYYQK	R	S	95.00%	3.38	0.386	0	0	1	0	2	1,399.62	121	131	TRUE	
SNU216_PC5_03	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	2	2	0.01%	7.69%	KSASPEVSEGHENQHGQESEAK	R	A	95.00%	4.17	0.347	0	0	0	1	2	2,445.03	73	94	TRUE	
SNU216_PC5_03	Ribonuclease H1	IPI00000077	32,064.10	99.80%	2	2	2	0.01%	7.69%	SASPEVSEGHENQHGQESEAK	K	A	95.00%	3.96	0.312	0	0	1	0	2	2,316.94	74	94	TRUE	
SNU216_PC5_03	Protein C9orf40	IPI00017504	21,063.50	99.80%	2	2	2	0.01%	8.25%	IDAGTMAEPSASPSK	K	R	95.00%	2.21	0.283	0	1	0	0	2	1,541.66	58	72	TRUE	
SNU216_PC5_03	Protein C9orf40	IPI00017504	21,063.50	99.80%	2	2	2	0.01%	8.25%	KIDAGTMAEPSASPSK	R	R	95.00%	4.12	0.532	0	1	0	0	2	1,669.75	57	72	TRUE	
SNU216_PC5_03	Ubiquitin-conjugating enzyme E2 E2	IPI00102173	22,255.70	100.00%	1	1	1	0.01%	8.46%	VDDSPSTSGGSSDGDQR	R	E	95.00%	3.26	0.478	0	1	0	0	2	1,746.65	8	24	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	5	0.03%	18.80%	GLGAGAGAGEESPATSLPR	R	M	95.00%	4.19	0.477	0	1	0	0	2	1,777.81	79	97	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	5	0.03%	18.80%	LLKPGEEPSEYTDEEDTK	R	D	95.00%	3.8	0.529	0	1	0	0	2	2,159.93	200	217	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	5	0.03%	18.80%	LLKPGEEPSEYTDEEDTKDHNK	R	Q	95.00%	4.26	0.275	0	0	1	0	2	2,654.15	200	221	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00005202	23,819.30	100.00%	4	5	5	0.03%	18.80%	RGLGAGAGAGEESPATSLPR	R	M	95.00%	4.24	0.441	0	1	1	0	2	1,933.91	78	97	TRUE	
SNU216_PC5_03	KIAA1143	IPI00410618	17,483.50	100.00%	1	2	2	0.01%	17.50%	RIQPQPPDEDGDHSDKEDEQPQVVVLK	K	K	95.00%	3.25	0.394	0	0	1	1	2	3,178.47	37	63	TRUE	
SNU216_PC5_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	10.20%	SPVSTRPLPSASQK	R	A	95.00%	2.51	0.218	0	1	0	0	2	1,534.76	216	229	TRUE	
SNU216_PC5_03	Isoform 2 of Protein FAM61A	IPI00410590,IPI00478300	50,555.00	99.80%	2	2	2	0.01%	10.20%	SSPQLDPLRKSPTMEQAVQTASAHLPAPAA	R	R	95.00%	3.91	0.207	0	0	0	1	2	3,571.71	182	214	TRUE	
SNU216_PC5_03	FLJ20625 protein	IPI00016670	17,725.30	100.00%	2	2	3	0.02%	17.40%	KLLLDPSSPPTK	R	A	95.00%	3.46	0.295	0	2	0	0	2	1,375.72	20	31	TRUE	
SNU216_PC5_03	FLJ20625 protein	IPI00016670	17,725.30	100.00%	2	2	3	0.02%	17.40%	MGCCYSSENEDSDQDR	-	E	95.00%	0.825	0.751	0	0	1	0	2	2,208.56	1	16	TRUE	
SNU216_PC5_03	Proteasome subunit alpha type 5	IPI00291922	26,411.30	100.00%	1	1	1	0.01%	5.39%	ITSPLMEPSSIEK	R	I	95.00%	2.48	0.464	0	1	0	0	2	1,511.71	54	66	TRUE	
SNU216_PC5_03	Nascent polypeptide-associated complex alpha su	IPI00023748	23,383.30	100.00%	1	2	2	0.01%	16.30%	VQGEAVSNIQENTQTPTVQEESEEEEVDET	K	D	95.00%	4.81	0.149	0	0	1	1	2	3,940.73	145	179	TRUE	
SNU216_PC5_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.04%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	4.99	0.579	0	1	1	0	2	2,671.09	14	37	TRUE	
SNU216_PC5_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.04%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	5.19	0.574	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216_PC5_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	6	6	0.04%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	4.94	0.497	0	1	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC5_03	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	4	8	0.05%	41.10%	KLEKEEEEGISQESSEEEQ	K	-	95.00%	3.76	0.465	0	4	2	0	2	2,396.93	89	107	TRUE	
SNU216_PC5_03	high mobility group AT-hook 1 isoform a	IPI00179700	11,676.20	99.80%	2	4	8	0.05%	41.10%	KQPPVSPGTALVGSQKEPSEVPTPK	R	R	95.00%	3.98	0.456	0	0	1	1	2	2,638.35	31	55	TRUE	
SNU216_PC5_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLR	K	K	95.00%	2.23	0.367	0	1	0	0	2	1,379.62	4	14	TRUE	
SNU216_PC5_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	2	2	2	0.01%	3.23%	SESPKEPEQLRK	K	L	95.00%	2.95	0.33	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216_PC5_03	OTTHUMP00000030182	IPI00023023,IPI00514329,IP	19,911.70	99.80%	2	2	2	0.01%	20.30%	LSSTDDGYIDLQFK	R	K	95.00%	2.49	0.374	0	1	0	0	2	1,681.74	85	98	TRUE	

Supplemental Table 2.A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_03	OTTHUMP00000030182	IPI00023023,IPI00514329,IP	19,911.70	99.80%	2	2	2	0.01%	20.30%	LSSTDDGYIDLQFKK	R	T	95.00%	3.06	0.412	0	1	0	0	2	1,809.83	85	99	TRUE	
SNU216_PC5_03	Osteoclast-stimulating factor 1	IPI00414836	23,787.70	100.00%	1	1	1	0.01%	7.01%	TLSNAEDYLDDEDSD	R	-	94.80%	1.9	0.28	0	1	0	0	2	1,781.63	200	214	TRUE	
SNU216_PC5_03	Ras-related protein R-Ras	IPI00020418	23,480.50	100.00%	1	1	2	0.01%	7.34%	KYQEQELPPSPPSAPR	R	K	95.00%	2.96	0.224	0	0	2	0	2	1,903.90	192	207	TRUE	
SNU216_PC5_03	Transgelin-2	IPI00550363,IPI00647915	22,260.70	100.00%	1	1	1	0.01%	5.56%	NFSDNQLQEGK	R	N	95.00%	2.38	0.239	0	1	0	0	2	1,359.56	160	170	TRUE	
SNU216_PC5_03	Isoform B of Ras-related C3 botulinum toxin subs	IPI00219675	23,468.00	100.00%	1	1	1	0.01%	7.58%	LRPLSYPQTVGETYGK	R	D	95.00%	2.92	0.277	0	1	0	0	2	1,888.92	67	82	TRUE	
SNU216_PC5_03	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	2	2	0.01%	8.98%	GEDVPSEEEEEEENGFEDR	R	K	95.00%	3.53	0.537	0	1	0	0	2	2,304.83	162	180	TRUE	
SNU216_PC5_03	RNA-binding protein NOB1	IPI00022373,IPI00394698	54,715.10	99.80%	2	2	2	0.01%	8.98%	KDDSDDDGGGWITPSNIK	R	Q	95.00%	5.65	0.479	0	1	0	0	2	1,999.83	181	198	TRUE	
SNU216_PC5_03	Lupus La protein	IPI00009032	46,839.00	99.80%	2	2	2	0.01%	5.64%	FASDDEHDEHDENGATGPVKR	K	A	95.00%	3.52	0.352	0	0	0	1	2	2,405.96	364	384	TRUE	
SNU216_PC5_03	Lupus La protein	IPI00009032	46,839.00	99.80%	2	2	2	0.01%	5.64%	TKFASDDEHDEHDENGATGPVKR	K	A	95.00%	3.18	0.201	0	0	0	1	2	2,635.11	362	384	TRUE	
SNU216_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	2.69%	KLGAGEGGEASVSPEK	K	T	95.00%	2.96	0.267	0	1	0	0	2	1,595.73	1289	1304	TRUE	
SNU216_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	2.69%	KLGAGEGGEASVSPEKTSTTSK	K	G	95.00%	3.35	0.272	0	0	1	0	2	2,201.03	1289	1310	TRUE	
SNU216_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	2.69%	LGAGEGGEASVSPEK	K	T	95.00%	2.25	0.356	0	1	0	0	2	1,467.64	1290	1304	TRUE	
SNU216_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	2.69%	LGAGEGGEASVSPEKTSTTSK	K	G	95.00%	2.49	0.299	0	1	1	0	2	2,072.94	1290	1310	TRUE	
SNU216_PC5_03	Treacle protein	IPI00298696,IPI00747047	144,311.40	100.00%	5	6	6	0.04%	2.69%	TSQVGAASAPAKESPR	K	K	95.00%	2.5	0.278	0	0	1	0	2	1,636.77	291	306	TRUE	
SNU216_PC5_03	PNAS-117	IPI00020827	7,263.80	99.70%	1	1	1	0.01%	33.30%	DYKVLVVMVPLVGLIHLGWYR	R	I	94.30%	2.71	0.24	0	0	0	1	2	2,550.37	9	29	TRUE	
SNU216_PC5_03	Hypothetical protein FLJ22484	IPI00024816	32,974.00	99.10%	2	2	2	0.01%	8.25%	GGSAAATSNPHHDNVR	R	Y	95.00%	2.57	0.255	0	0	1	0	2	1,670.70	205	220	TRUE	
SNU216_PC5_03	Hypothetical protein FLJ22484	IPI00024816	32,974.00	99.10%	2	2	2	0.01%	8.25%	SMSENAVR	R	Q	81.40%	1.71	0.242	0	1	0	0	2	973.3808	129	136	TRUE	
SNU216_PC5_03	28S ribosomal protein S16, mitochondrial precurs	IPI00032872	15,345.40	100.00%	1	1	1	0.01%	9.49%	TDAEATDTEATET	K	-	95.00%	2.15	0.427	0	1	0	0	2	1,434.52	125	137	TRUE	
SNU216_PC5_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKK	K	D	95.00%	3.99	0.242	0	0	1	0	2	2,664.20	232	256	TRUE	
SNU216_PC5_03	TXNDC14 protein	IPI00556619	29,643.50	99.80%	2	2	2	0.01%	10.50%	AGDNIPEEQPVASTPTTVSDGENKKDK	K	-	95.00%	4.09	0.302	0	0	1	0	2	2,907.33	232	258	TRUE	
SNU216_PC5_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	3	0.02%	14.50%	GRLSPVPVPR	R	A	91.90%	1.84	0.246	0	1	0	0	2	1,157.62	116	125	TRUE	
SNU216_PC5_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	100.00%	2	3	3	0.02%	14.50%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	5.03	0.468	0	0	1	1	2	3,607.45	259	290	TRUE	
SNU216_PC5_03	U2 small nuclear ribonucleoprotein A'	IPI00297477	28,417.10	100.00%	1	1	1	0.01%	5.49%	SKTFNPGAGLPTDK	R	K	95.00%	2.84	0.295	0	1	0	0	2	1,512.71	178	191	TRUE	
SNU216_PC5_03	NME2 protein	IPI00604590	32,642.20	100.00%	1	2	2	0.01%	5.82%	VMLGETNPADSKPGTIR	R	G	95.00%	2.57	0.363	0	1	1	0	2	1,865.88	114	130	TRUE	
SNU216_PC5_03	Isoform 1 of LIM and SH3 domain protein 1	IPI00000861,IPI00386803,IP	29,716.80	100.00%	1	1	2	0.01%	8.81%	MGPSGGEGMEPERRDSQDGSSYR	R	R	95.00%	4.72	0.508	0	0	2	0	2	2,565.01	131	153	TRUE	
SNU216_PC5_03	60S ribosomal protein L24	IPI00306332	17,779.50	100.00%	1	1	1	0.01%	7.01%	IVKPVKVSAPR	K	V	95.00%	2.03	0.323	0	0	1	0	2	1,273.74	142	152	TRUE	
SNU216_PC5_03	Casein kinase II subunit beta	IPI00010865,IPI00640088	24,942.90	99.70%	1	3	6	0.04%	9.77%	IHPMAYQLQLQAASNFKSPVK	K	T	95.00%	5.07	0.504	0	1	3	2	2	2,467.22	192	212	TRUE	
SNU216_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	6	14	0.08%	41.90%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	R	F	95.00%	5.8	0.412	0	0	1	2	2	3,671.51	94	122	TRUE	
SNU216_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	6	14	0.08%	41.90%	DWEDDSDEDMSNFDR	K	F	95.00%	3.5	0.504	0	5	1	0	2	1,955.63	108	122	TRUE	
SNU216_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	6	14	0.08%	41.90%	FSEMMNNMGGDEDVDLPEVDGADDDSQ	R	-	95.00%	5.6	0.37	0	0	2	0	2	4,286.57	123	160	TRUE	
SNU216_PC5_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	4	6	14	0.08%	41.90%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	4.35	0.329	0	0	3	0	2	3,472.37	96	122	TRUE	
SNU216_PC5_03	Isoform 7 of Titin	REVERSE_IPI00179357-R,RE	3,734,470.50	98.60%	1	1	1	0.01%	0.04%	KELIYNTIESGGDDK	R	P	95.00%	3.15	0.234	0	0	1	0	2	1,761.79	13309	13323	TRUE	
SNU216_PC5_03	Isoform Alpha of Caveolin-2	IPI00019870,IPI00386526	18,291.60	99.80%	1	2	3	0.02%	15.40%	ADVQLFMDDDSYSHHSGLEYADPEK	K	F	95.00%	3.08	0.238	0	0	1	2	0	2	2,949.19	8	32	TRUE	
SNU216_PC5_03	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	5	5	0.03%	13.60%	ERSPSPLRGNVVPSPLPTR	R	R	95.00%	3.71	0.44	0	1	1	0	2	2,299.04	28	46	TRUE	
SNU216_PC5_03	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	5	5	0.03%	13.60%	GNVVPSPLPTR	R	R	95.00%	2.09	0.453	0	1	0	0	2	1,216.61	36	46	TRUE	
SNU216_PC5_03	Calcium-regulated heat stable protein 1	IPI00304409	15,891.60	100.00%	3	5	5	0.03%	13.60%	GNVVPSPLPTRR	R	T	95.00%	2.22	0.329	0	1	1	0	2	1,372.71	36	47	TRUE	
SNU216_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	9	10	0.06%	28.40%	EEDEEPESPPEKK	K	T	95.00%	2.25	0.312	0	1	0	0	2	1,622.65	207	219	TRUE	
SNU216_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	9	10	0.06%	28.40%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	4.57	0.629	0	1	1	0	2	2,445.97	9	28	TRUE	
SNU216_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	9	10	0.06%	28.40%	LKATVTPSPVKGK	R	G	95.00%	2.87	0.498	0	1	0	0	2	1,405.78	174	186	TRUE	
SNU216_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	9	10	0.06%	28.40%	NSQEDSEDSEDKDVK	K	T	95.00%	3.09	0.344	0	2	0	0	2	1,884.64	53	67	TRUE	
SNU216_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	9	10	0.06%	28.40%	SGKNSQEDSEDSEDKDVK	R	T	95.00%	2.42	0.268	0	1	1	0	2	2,076.82	50	67	TRUE	
SNU216_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	9	10	0.06%	28.40%	TPSPKEEDEEPESPPEKK	K	T	95.00%	3.64	0.282	0	0	1	0	2	2,132.93	202	219	TRUE	
SNU216_PC5_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	100.00%	7	9	10	0.06%	28.40%	VVDYSQFQESDDADEDYGR	K	D	95.00%	4.35	0.511	0	1	0	0	2	2,317.88	10	28	TRUE	
SNU216_PC5_03	splicing factor, arginine/serine-rich 1	IPI00215884	27,745.10	100.00%	1	1	3	0.02%	5.24%	VKVDGPRSPSYGR	R	S	95.00%	2.89	0.33	0	0	3	0	2	1,497.72	192	204	TRUE	
SNU216_PC5_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	4	4	0.02%	15.60%	SLSTSGESLYHVLGLDK	R	N	95.00%	4	0.422	0	1	1	0	2	1,885.89	8	24	TRUE	
SNU216_PC5_03	Isoform 2 of DnaJ homolog subfamily C member	IPI00023780,IPI00402231	18,801.50	100.00%	2	4	4	0.02%	15.60%	SLSTSGESLYHVLGLDKNATSDDIKK	R	S	95.00%	3.53	0.277	0	0	1	1	2	2,858.38	8	33	TRUE	
SNU216_PC5_03	Poly(rC)-binding protein 2	IPI00216689	38,580.90	100.00%	1	1	1	0.01%	3.84%	PSSSPVIFAGGQDR	K	Y	95.00%	2.82	0.394	0	1	0	0	2	1,497.67	186	199	TRUE	
SNU216_PC5_03	SVH-B	IPI00420025,IPI00555667	33,851.10	99.80%	2	2	2	0.01%	7.79%	SAEDLTDGSYDDVLNAEQLQK	K	L	95.00%	5.41	0.617	0	1	0	0	2	2,391.02	45	65	TRUE	
SNU216_PC5_03	SVH-B	IPI00420025,IPI00555667	33,851.10	99.80%	2	2	2	0.01%	7.79%	SSKSAEDLTDGSYDDVLNAEQLQK	R	L	95.00%	5.77	0.0406	0	1	0	0	2	2,693.18	42	65	TRUE	
SNU216_PC5_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	2	2	3	0.02%	5.44%	LPSSPVYEDAASFK	R	A	95.00%	2.87	0.476	0	1	0	0	2	1,590.71	378	391	TRUE	
SNU216_PC5_03	Src substrate cortactin	IPI00029601,IPI00062884,IP	57,466.00	100.00%	2	2	3	0.02%	5.44%	TQTPPVSPAPQPTEER	K	L	95.00%	3.05	0.418	0	2	0	0	2	1,814.83	362	377	TRUE	
SNU216_PC5_03	Voltage-dependent anion-selective channel prote	IPI00216308	30,642.80	100.00%	1	1	1	0.01%	4.96%	LTFDSSFSPNTGKK	K	N	95.00%	2.75	0.344	0	1	0	0	2	1,608.73	96	109	TRUE	
SNU216_PC5_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	2	2	2	0.01%	2.94%	DNSPPPAFKPEPPK	R	A	95.00%	2.16	0.364	0	1	0	0	2	1,600.74	984	997	TRUE	
SNU216_PC5_03	Isoform A1 of Tight junction protein ZO-2	IPI00003843	133,975.30	100.00%	2	2	2	0.01%	2.94%	GSYGSDAEEEEYRQQLSEHSK	R	R	95.00%	3.06	0.235	0	0	1	0	2	2,509.02	1155	1175	TRUE	
SNU216_PC5_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	3	3	0.02%	4.15%	EKEISDDEAEEEK	R	G	95.00%	2.39	0.242	0	1	0	0	2	1,630.64	221	233	TRUE	
SNU216_PC5_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	3	3	0.02%	4.15%	IEDVGSDEEDDSGKDK	K	K	95.00%	3.13	0.505	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC5_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	3	3	3	0.02%	4.15%	IEDVGSDEEDDSGKDKK	K	K	95.00%	3.14	0.364	0	1	0	0	2	1,945.79	249	265	TRUE	
SNU216_PC5_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	RRSIQDLTVTGTEPGQVSSR	R	S	95.00%	4.69	0.517	0	0	1	0	2	2,267.11	437	456	TRUE	
SNU216_PC5_03	Isoform 1A of Mitogen-activated protein kinase k	IPI00218566,IPI00295738,IP	67,196.50	99.80%	2	2	2	0.01%	3.45%	SIQDLTVTGTEPGQVSSR	K	S	95.00%	3.23	0.437	0	1	0	0	2	1,954.91	439	456	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.11%	24.20%	EGEEPTVYSDEEEPK	K	D	95.00%	3.51	0.354	0	1	0	0	2	1,817.70	172	186	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.11%	24.20%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	3.85	0.468	0	1	2	0	2	2,375.94	172	191	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.11%	24.20%	EGEEPTVYSDEEEPKDESARK	K	N	95.00%	4.38	0.435	0	1	1	1	2	2,504.04	172	192	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.11%	24.20%	GDQPAASGDSDDDEPPPLPR	R	L	95.00%	4.88	0.643	0	2	1	0	2	2,115.85	47	66	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.11%	24.20%	IVRGDQPAASGDSDDDEPPPLPR	K	L	95.00%	5.28	0.532	0	0	2	1	2	2,484.10	44	66	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.11%	24.20%	LLKEGEEPTVYSDEEEPK	K	D	95.00%	3.81	0.388	0	1	1	0	2	2,171.96	169	186	TRUE	
SNU216_PC5_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	7	15	18	0.11%	24.20%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	4.3	0.507	0	1	1	1	2	2,730.20	169	191	TRUE	
SNU216_PC5_03	Isoform 2 of Proteasome subunit alpha type 3	IPI00171199,IPI00419249	28,433.70	100.00%	1	1	6	0.04%	5.67%	ESLKEEDESDDDNM	K	-	95.00%	3.65	0.512	0	6	0	0	2	1,751.58	242	255	TRUE	
SNU216_PC5_03	Isoform 4 of FUS-interacting serine-arginine-rich	IPI00386662,IPI00412643,IP	22,136.10	100.00%	1	1	1	0.01%	4.05%	SFDYNYR	R	R	95.00%	1.54	0.207	1	0	0	0	2	1,044.38	133	139	TRUE	
SNU216_PC5_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	100.00%	1	2	2	0.01%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	3.98	0.421	0	1	1	0	2	2,051.83	68	85	TRUE	
SNU216_PC5_03	Ferritin heavy chain	IPI00554521	21,095.00	99.90%	1	1	1	0.01%	14.30%	KMGAPESGLAEYLFDKHTLGDSDNES	R	-	95.00%	3.55	0.298	0	0	1	0	2	2,891.24	157	182	TRUE	
SNU216_PC5_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	EEATYGVWAERDSDDERPSFGGK	K	R	95.00%	3.28	0.285	0	0	1	0	2	2,681.12	47	69	TRUE	
SNU216_PC5_03	Isoform 1 of Tuftelin-interacting protein 11	IPI00015924	96,821.90	99.80%	2	2	2	0.01%	5.73%	GAAEEAELEDSDDEEKPVKQDDFPK	K	D	95.00%	3.63	0.362	0	0	1	0	2	2,871.21	88	112	TRUE	
SNU216_PC5_03	Ras-related protein Rab-8A	IPI00028481	23,669.70	100.00%	1	1	1	0.01%	7.25%	KLEGNSPQGSNQGVK	K	I	95.00%	2.22	0.275	0	1	0	0	2	1,702.72	176	190	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC5_03	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	2	2	0.01%	8.70%	NSPTFKSFEEK	K	V	95.00%	1.99	0.288	0	1	0	0	2	1,393.60	130	140	TRUE	
SNU216_PC5_03	Tumor protein D52	IPI00218323,IPI00619958	19,863.30	100.00%	2	2	2	0.01%	8.70%	NSPTFKSFEEKVENLK	K	S	95.00%	2.88	0.184	0	1	0	0	2	1,976.94	130	145	TRUE	
SNU216_PC5_03	40S ribosomal protein S3a	IPI00419880	29,814.10	100.00%	1	1	1	0.01%	4.56%	ADGYEPPVQESV	R	-	95.00%	1.94	0.393	1	0	0	0	2	1,370.55	252	263	TRUE	
SNU216_PC5_03	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.11%	SSISLGWKPPAKDGGSPIK	K	G	95.00%	3.32	0.249	0	1	0	0	2	2,084.98	16554	16572	TRUE	
SNU216_PC5_03	Isoform 2 of Titin	IPI00023283	3,805,532.50	100.00%	2	2	2	0.01%	0.11%	WTVPEKDGGSPITNYIVEKR	K	D	94.00%	3.45	0.166	0	1	0	0	2	2,369.15	14939	14958	TRUE	
SNU216_PC5_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	6.69%	SGDETPGSEVPGDK	R	A	95.00%	2.21	0.37	0	1	0	0	2	1,454.57	161	174	TRUE	
SNU216_PC5_03	Scaffold attachment factor A2	IPI00456887,IPI00741728	85,105.20	99.80%	2	2	2	0.01%	6.69%	SKSPLPPEEEAKDEEEDQTLVNLDTYTSDLHI	R	D	95.00%	5.45	0.487	0	0	0	1	2	4,198.92	226	261	TRUE	
SNU216_PC5_03	Isoform 1 of NSFL1 cofactor p47	IPI00100197,IPI00397571	40,816.40	99.90%	1	2	2	0.01%	3.51%	KKSPNELVDDLFK	R	G	95.00%	3.77	0.332	0	1	1	0	2	1,612.80	114	126	TRUE	
SNU216_PC5_03	Proteasome inhibitor PI31 subunit	IPI00009949,IPI00643918	20,593.40	100.00%	1	1	2	0.01%	5.90%	ANVSSPHREFPPATAR	K	E	95.00%	2.38	0.249	0	0	2	0	2	1,816.85	149	164	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.71	0.423	0	3	1	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	ASLGSLEGEAEAEASSPKGK	K	F	95.00%	3.74	0.421	0	1	1	0	2	1,997.91	2819	2838	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	GGVTGSPEASISGSK	K	G	95.00%	2.18	0.356	0	1	0	0	2	1,413.63	2797	2811	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	GGVTGSPEASISGSKGDLK	K	S	95.00%	2.9	0.394	0	1	0	0	2	1,826.85	2797	2815	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	GHYEVTGSDDETGK	K	L	95.00%	2.47	0.477	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.38	0.465	0	1	1	1	2	2,602.17	2905	2929	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	GHYEVTGSDDETGKLQGSGVSLASKK	K	S	81.80%	4.27	0.0786	0	0	1	0	2	2,730.26	2905	2930	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	GKGGVTGSPEASISGSK	K	G	95.00%	3.46	0.15	0	1	0	0	2	1,598.74	2795	2811	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	GKGGVTGSPEASISGSKGDLK	K	S	95.00%	5.63	0.468	0	0	1	0	2	2,011.97	2795	2815	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	SKGHYEVTGSDDETGK	K	L	95.00%	3.08	0.279	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	4.23	0.333	0	0	1	0	2	2,817.29	2903	2929	TRUE	
SNU216_PC5_03	313 kDa protein	IPI00555610	312,537.10	100.00%	12	16	18	0.11%	3.44%	SNSFSDEREFSGPSTPTGTLEFEGGEVSLEGC	R	V	95.00%	5.62	0.0618	0	0	1	0	2	3,514.52	2851	2883	TRUE	
SNU216_PC5_03	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	2	3	0.02%	18.00%	ELDEEGSDPPLPGR	R	A	95.00%	2.63	0.306	0	2	0	0	2	1,590.67	169	182	TRUE	
SNU216_PC5_03	MGC11257 protein	IPI00031651	22,084.00	99.80%	2	2	3	0.02%	18.00%	GEAVLRPGLDAEPELSPEEQR	K	V	95.00%	4.02	0.366	0	0	1	0	2	2,372.11	44	64	TRUE	
SNU216_PC5_03	PDZ and LIM domain protein 5	IPI00007935	63,839.90	100.00%	1	1	1	0.01%	2.52%	EVVKPVPITSPAVSK	K	V	95.00%	3.41	0.391	0	1	0	0	2	1,630.88	101	115	TRUE	
SNU216_PC5_03	Neutrophil gelatinase-associated lipocalin precurs	IPI00299547,IPI00643623,IP	22,588.90	100.00%	1	1	1	0.01%	6.57%	EDKSYNVTSVLFR	K	K	81.50%	2.49	0.213	0	0	1	0	2	1,717.72	80	92	TRUE	
SNU216_PC5_03	Plakophilin-3	IPI00026952	87,084.70	99.80%	1	1	1	0.01%	2.01%	AGGLDWPEATEVSPSR	R	T	95.00%	3.33	0.384	0	1	0	0	2	1,751.76	226	241	TRUE	
SNU216_PC5_03	Vesicle trafficking protein SEC22b	IPI00006865	24,610.20	100.00%	1	1	1	0.01%	6.54%	NLGSINTELQDVQR	R	I	95.00%	3.01	0.43	0	1	0	0	2	1,666.78	133	146	TRUE	
SNU216_PC5_03	Heat-shock protein beta-1	IPI00025512	22,782.60	100.00%	1	1	1	0.01%	7.32%	GPSWDPFRDWYPHSR	R	L	95.00%	2.15	0.243	0	0	1	0	2	1,982.83	13	27	TRUE	
SNU216_PC5_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	31	0.19%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	4.71	0.607	0	1	1	0	2	2,508.94	96	116	TRUE	
SNU216_PC5_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	31	0.19%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDE	K	R	95.00%	5.73	0.24	0	0	2	1	2	4,104.59	78	115	TRUE	
SNU216_PC5_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	6	31	0.19%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDE	K	L	95.00%	8.02	0.21	0	0	5	21	2	4,260.69	78	116	TRUE	
SNU216_PC5_03	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	2	2	2	0.01%	30.30%	KVSSAEGAAKEEPK	R	R	95.00%	2.59	0.312	0	0	1	0	2	1,510.72	4	17	TRUE	
SNU216_PC5_03	Nonhistone chromosomal protein HMG-14	IPI00554761	10,527.90	100.00%	2	2	2	0.01%	30.30%	TEESPASDEAGEKEAK	K	S	95.00%	2.18	0.393	0	1	0	0	2	1,757.71	82	97	TRUE	
SNU216_PC5_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	2	2	3	0.02%	2.86%	DHSPTPSVFNSDEER	R	Y	95.00%	2.85	0.354	0	2	0	0	2	1,796.71	490	504	TRUE	
SNU216_PC5_03	Isoform 1 of Pre-mRNA 3'-end-processing factor	IPI00395337	66,526.90	100.00%	2	2	3	0.02%	2.86%	ERDHSPTPSVFNSDEER	R	Y	95.00%	2.65	0.221	0	0	1	0	2	2,161.82	488	504	TRUE	
SNU216_PC5_03	Isoform 1 of RNA-binding protein 8A	IPI00001757	19,889.40	99.90%	1	2	3	0.02%	10.90%	MREDYDSVEQDGDEPGPQR	R	S	95.00%	3.97	0.438	0	1	2	0	2	2,302.89	50	68	TRUE	
SNU216_PC5_03	Eukaryotic translation initiation factor 6	IPI00010105	26,598.20	100.00%	1	1	1	0.01%	8.98%	LNEAQPSTIATSMRDSLIDSLT	K	-	95.00%	4.45	0.0367	0	1	0	0	2	2,443.14	224	245	TRUE	
SNU216_PC5_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	14.60%	AGDLLEDSPKRPK	R	E	95.00%	2.81	0.238	0	1	1	0	2	1,505.74	158	170	TRUE	
SNU216_PC5_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAK	K	E	95.00%	2.97	0.38	0	1	0	0	2	2,204.90	127	146	TRUE	
SNU216_PC5_03	Hepatoma-derived growth factor	IPI00020956	26,788.60	100.00%	3	4	4	0.02%	14.60%	GNAEGSSDEEGKLVIDEPAKEK	K	N	94.50%	2.93	0.2	0	0	1	0	2	2,462.04	127	148	TRUE	
SNU216_PC5_03	AHNAK nucleoprotein, isoform 2	IPI00031605	16,189.20	99.80%	1	1	1	0.01%	9.33%	KGDRSPEPGQTWTR	R	E	95.00%	3.32	0.346	0	0	1	0	2	1,694.76	90	103	TRUE	
SNU216_PC5_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.80%	2	3	3	0.02%	6.94%	RPHTPTPGIYMGR	K	P	95.00%	2.73	0.234	0	0	1	0	2	1,562.73	198	210	TRUE	
SNU216_PC5_03	Isoform 1 of Arginine/serine-rich splicing factor 1	IPI00301503,IPI00555647	33,699.60	99.80%	2	3	3	0.02%	6.94%	RPHTPTPGIYMGRPTYGSSR	K	R	95.00%	2.62	0.382	0	0	1	1	2	2,311.08	198	217	TRUE	
SNU216_PC5_03	M-phase phosphoprotein 6	IPI00016074	18,996.60	100.00%	1	1	1	0.01%	13.80%	HKAEEVEDETVELDVSDEEMAR	K	R	95.00%	5.4	0.284	0	0	1	0	2	2,640.10	95	116	TRUE	
SNU216_PC5_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	RGDSESEEDEQDSEEVR	R	L	95.00%	2.74	0.536	0	1	0	0	2	2,155.73	12	28	TRUE	
SNU216_PC5_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	RRGDSESEEDEQDSEEVR	R	L	95.00%	3	0.442	0	0	2	0	2	2,311.83	11	28	TRUE	
SNU216_PC5_03	Protein C9orf78	IPI00550191	33,688.60	100.00%	3	3	4	0.02%	11.80%	VGDTEKPEPERSPPNR	R	K	95.00%	2.96	0.25	0	0	1	0	2	1,887.86	250	265	TRUE	
SNU216_PC5_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	2.53%	KASGSENEGDYNPGR	R	K	95.00%	1.96	0.404	0	1	0	0	2	1,740.63	1548	1562	TRUE	
SNU216_PC5_03	Isoform Beta-1 of DNA topoisomerase 2-beta	IPI00027280,IPI00217709	183,273.10	99.80%	2	2	2	0.01%	2.53%	KTSFDQDSDVDIFPSDFPTEPPSLPR	K	T	95.00%	5.24	0.353	0	0	1	0	2	3,017.35	1574	1599	TRUE	
SNU216_PC5_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	2	2	2	0.01%	0.83%	QTPAPAASVTGSR	K	R	95.00%	2.07	0.304	0	0	1	0	2	1,322.61	2772	2784	TRUE	
SNU216_PC5_03	Isoform Long of Antigen KI-67	IPI00004233,IPI00301293	358,695.80	100.00%	2	2	2	0.01%	0.83%	TPVQYSQQQNSPQK	K	H	95.00%	2.42	0.325	0	1	0	0	2	1,712.76	347	360	TRUE	
SNU216_PC5_03	Isoform 1 of Inhibitor of growth protein 5	IPI00103709,IPI00513864,IP	16,272.20	100.00%	3	3	3	0.02%	8.30%	DKMEGSDFESSGGR	K	G	95.00%	2.77	0.249	0	1	0	0	2	1,581.59	109	122	TRUE	
SNU216_PC5_03	Isoform 1 of Inhibitor of growth protein 5	IPI00103709,IPI00513864,IP	16,272.20	100.00%	3	3	3	0.02%	8.30%	FEADLKDKMEGSDFESSGGR	R	G	84.60%	2.97	0.142	0	0	1	0	2	2,284.94	103	122	TRUE	
SNU216_PC5_03	Isoform 1 of Inhibitor of growth protein 5	IPI00103709,IPI00513864,IP	16,272.20	100.00%	3	3	3	0.02%	8.30%	MEGSDFESSGGR	K	G	95.00%	2.13	0.276	0	1	0	0	2	1,338.47	111	122	TRUE	
SNU216_PC5_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	202,867.80	99.90%	2	2	2	0.01%	0.88%	ARVDHGAEIITQSPGR	K	S	95.00%	3.42	0.221	0	0	1	0	2	1,786.86	1801	1816	TRUE	
SNU216_PC5_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	202,867.80	99.90%	2	2	2	0.01%	0.88%	VDHGAEIITQSPGR	R	S	95.00%	3.38	0.523	0	1	0	0	2	1,559.72	1803	1816	TRUE	
SNU216_PC5_03	Metallothionein-1X	REVERSE_IPI00008753-R,RE	6,067.60	99.80%	2	3	3	0.02%	34.40%	CKCSGACACSGVPSCSCNPDM	K	-	95.00%	0.117	1	0	0	1	1	2	2,604.73	41	61	TRUE	
SNU216_PC5_03	Metallothionein-1X	REVERSE_IPI00008753-R,RE	6,067.60	99.80%	2	3	3	0.02%	34.40%	CSGACACSGVPSCSCNPDM	K	-	95.00%	0.374	1	0	0	1	0	2	2,332.59	43	61	TRUE	
SNU216_PC5_03	40S ribosomal protein S17	IPI00221093	15,419.30	100.00%	1	2	2	0.01%	16.40%	LLDFGSLSNLQVTQPTVGMNFK	K	T	95.00%	3.98	0.284	0	1	1	0	2	2,489.21	107	128	TRUE	
SNU216_PC5_03	Chloride intracellular channel protein 1	IPI00010896,IPI00646484	26,184.40	100.00%	1	1	1	0.01%	11.20%	VLDNYLTSPLPEEVDETSAEDEGVSQR	K	K	95.00%	3.34	0.176	0	0	1	0	2	3,072.36	139	165	TRUE	
SNU216_PC5_03	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	2	4	4	0.02%	11.90%	IISTTASKTETPIVSK	K	S	95.00%	3.29	0.368	0	1	1	0	2	1,755.91	140	155	TRUE	
SNU216_PC5_03	VAMP-associated protein B/C	IPI00006211	27,228.70	100.00%	2	4	4	0.02%	11.90%	SLSSSLDDTEVKK	K	V	95.00%	2.54	0.277	0	1	1	0	2	1,488.68	156	168	TRUE	
SNU216_PC5_03	Bcl2-antagonist of cell death	IPI00024291	18,391.90	99.10%	2	2	2	0.01%	22.60%	GLGPSPAGDGPSGSGK	R	H	82.60%	2.03	0.209	0	1	0	0	2	1,420.61	21	36	TRUE	
SNU216_PC5_03	Bcl2-antagonist of cell death	IPI00024291	18,391.90	99.10%	2	2	2	0.01%	22.60%	HSSYPAGTEDDEGMGEEPSPFR	R	G	95.00%	4.04	0.372	0	0	1	0	2	2,474.94	73	94	TRUE	
SNU216_PC5_03	23 kDa protein	IPI00002821,IPI00069693,IP	23,259.00	100.00%	1	1	1	0.01%	4.19%	AALLKASPK	K	K	95.00%	1.71	0.222	1	0	0	0	2	978.5385	133	141	TRUE	
SNU216_PC6_03	Isoform 1 of Alpha-1 catenin	IPI00215948	100,072.90	99.80%	1	1	1	0.01%	1.99%	TPEELDDSDFETEDFDVR	R	S	95.00%	3.96	0.402	0	1	0	0	2	2,238.86	634	651	TRUE	
SNU216_PC6_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	4	0.04%	13.70%	RSASPDDDLGSSNWEAADLGNEER	K	K	95.00%	2.15	0.274	0	0	1	0	2	2,671.09	14	37	TRUE	
SNU216_PC6_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	4	0.04%	13.70%	SASPDDDLGSSNWEAADLGNEER	R	K	95.00%	3.96	0.651	0	1	1	0	2	2,514.99	15	37	TRUE	
SNU216_PC6_03	Small acidic protein	IPI00003419	20,332.70	100.00%	3	4	4	0.04%	13.70%	SASPDDDLGSSNWEAADLGNEERK	R	Q	95.00%	2.47	0.474	0	0	1	0	2	2,643.08	15	38	TRUE	
SNU216_PC6_03	Triosephosphate isomerase	IPI00465028	30,535.40	100.00%	1	1	1	0.01%	5.28%	KQSLGELIGTLNAAK	R	V	95.00%	2.06	0.309	0	1	0	0	2	1,622.85	54	68	TRUE	
SNU216_PC6_03	Heat shock protein HSP 90-beta	IPI00414676	83,136.10	100.00%	1	1	1	0.01%	2.21%	IEDVGSDEEDDSGKDK	K	K	95.00%	1.76	0.433	0	1	0	0	2	1,817.70	249	264	TRUE	
SNU216_PC6_03	40S ribosomal protein S3	IPI00011253	26,688.60	100.00%	1	1	1	0.01%	5.35%	DEILPTTPISEQK	K	G	95.00%	1.61	0.329	0	1	0	0	2	1,550.74	215	227	TRUE	
SNU216_PC6_03	Isoform 2 of Protein C14orf133	IPI00398786	55,618.00	99.50%	1	1	1	0.01%	1.25%	SAEEEK	G	I	90.00%	0.967	0.2	1	0	0	0	1	772.2761	461	466	TRUE	

Supplemental Table 2. A list of all phosphorylated peptides identified in SNU216 and SNU216-LR.

MS/MS sample name	Protein name	Protein accession numbers	Protein molecular weight (Da)	Protein identification probability	Number of unique peptides	Number of unique spectra	Number of total spectra	Percentage of total spectra	Percentage sequence coverage	Peptide sequence	Previous amino acid	Next amino acid	Best Peptide identification probability	Best SEQUEST XCorr score	Best SEQUEST DCn score	Number of identified +1H spectra	Number of identified +2H spectra	Number of identified +3H spectra	Number of identified +4H spectra	Number of enzymatic termini	Calculated +1H Peptide Mass (AMU)	Peptide start index	Peptide stop index	Assigned	Other Proteins
SNU216_PC6_03	Guanine nucleotide-binding protein G(I)/G(S)/G(O	IPI00221232	7,875.40	100.00%	1	1	1	0.01%	15.50%	TASTNNIAQAR	K	R	95.00%	2.07	0.288	0	1	0	0	2	1,226.55	4	14	TRUE	
SNU216_PC6_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	4	5	0.05%	18.10%	AKLNWLSVDFNNWKDWEDDSDEDMSNF	R	F	95.00%	3.89	0.414	0	0	1	1	2	3,671.51	94	122	TRUE	
SNU216_PC6_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	4	5	0.05%	18.10%	DWEDDSDEDMSNFDR	K	F	94.20%	1.32	0.348	0	1	0	0	2	1,955.63	108	122	TRUE	
SNU216_PC6_03	Prostaglandin E synthase 3	IPI00015029	18,697.90	100.00%	3	4	5	0.05%	18.10%	LNWLSVDFNNWKDWEDDSDEDMSNFDR	K	F	95.00%	2.87	0.272	0	0	2	0	2	3,472.37	96	122	TRUE	
SNU216_PC6_03	Isoform C1 of Heterogeneous nuclear ribonucleo	IPI00216592	32,338.00	99.80%	1	1	1	0.01%	13.00%	MESEGGADDSAEEGDLLDDDDNEDRGDD	K	E	95.00%	5.34	0.498	0	0	0	1	2	4,277.68	238	275	TRUE	
SNU216_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	8	0.08%	1.79%	ASLGSLEGEAEAEASSPK	K	G	95.00%	3.5	0.567	0	2	0	0	2	1,812.79	2819	2836	TRUE	
SNU216_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	8	0.08%	1.79%	GHYEVTGSDDETGK	K	L	95.00%	1.85	0.304	0	1	0	0	2	1,574.60	2905	2918	TRUE	
SNU216_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	8	0.08%	1.79%	GHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	2.43	0.311	0	0	1	0	2	2,602.17	2905	2929	TRUE	
SNU216_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	8	0.08%	1.79%	SKGHYEVTGSDDETGK	K	L	95.00%	2.79	0.372	0	0	1	0	2	1,789.73	2903	2918	TRUE	
SNU216_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	8	0.08%	1.79%	SKGHYEVTGSDDETGKLQGSGVSLASK	K	K	95.00%	3.26	0.396	0	0	0	2	2	2,817.29	2903	2929	TRUE	
SNU216_PC6_03	313 kDa protein	IPI00555610	312,537.10	100.00%	6	6	8	0.08%	1.79%	SNSFSDER	R	E	95.00%	1.49	0.418	0	1	0	0	2	1,021.36	2851	2858	TRUE	
SNU216_PC6_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	4	4	0.04%	7.50%	KVEEEQEADEEDVSEEEAESK	K	E	95.00%	3.4	0.544	0	1	1	0	2	2,517.99	234	254	TRUE	
SNU216_PC6_03	Thioredoxin domain-containing protein 1 precurs	IPI00395887	31,791.90	99.80%	2	4	4	0.04%	7.50%	VEEEQEADEEDVSEEEAESK	K	E	95.00%	2.38	0.496	0	1	1	0	2	2,389.89	235	254	TRUE	
SNU216_PC6_03	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	2	2	0.02%	31.60%	PGPTPSGTNVGSSGRSPSK	-	A	95.00%	3.1	0.325	0	0	1	0	2	1,849.84	1	19	TRUE	
SNU216_PC6_03	Protein transport protein Sec61 beta subunit	IPI00220835	9,843.20	100.00%	2	2	2	0.02%	31.60%	TTSAGTGGMWR	R	F	95.00%	1.7	0.45	0	1	0	0	2	1,204.48	46	56	TRUE	
SNU216_PC6_03	Programmed cell death protein 5	IPI00023640	14,154.10	99.90%	1	1	1	0.01%	8.87%	KVMDSDEDDDY	R	-	92.90%	1.67	0.226	0	1	0	0	2	1,411.46	114	124	TRUE	
SNU216_PC6_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	2	2	0.02%	11.90%	EGEEPTVYSDEEEPKDESAR	K	K	95.00%	1.94	0.343	0	0	1	0	2	2,375.94	172	191	TRUE	
SNU216_PC6_03	Membrane-associated progesterone receptor com	IPI00220739	21,541.00	100.00%	2	2	2	0.02%	11.90%	LLKEGEEPTVYSDEEEPKDESAR	K	K	95.00%	2.13	0.278	0	0	1	0	2	2,730.20	169	191	TRUE	
SNU216_PC6_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.60%	2	2	2	0.02%	0.88%	ARVDHGAEIITQSPGR	K	S	91.80%	2.52	0.172	0	0	1	0	2	1,786.86	1770	1785	TRUE	
SNU216_PC6_03	Isoform 1 of Microtubule-associated protein 2	IPI00003842,IPI00010728,IP	199,540.80	99.60%	2	2	2	0.02%	0.88%	VDHGAEIITQSPGR	R	S	95.00%	2.37	0.348	0	1	0	0	2	1,559.72	1772	1785	TRUE	
SNU216_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	9	0.10%	24.90%	CGSGPVHISGQHLVAVEEDAESEDEEEEDV	K	L	95.00%	3.06	0.236	0	0	1	0	2	3,460.44	104	134	TRUE	
SNU216_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	9	0.10%	24.90%	DELHIVEAEAMNYEGSPIK	K	V	95.00%	2.91	0.304	0	0	1	0	2	2,224.98	55	73	TRUE	
SNU216_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	9	0.10%	24.90%	DELHIVEAEAMNYEGSPIKVTLATLK	K	M	95.00%	5.2	0.533	0	0	1	1	2	2,951.45	55	80	TRUE	
SNU216_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	9	0.10%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIK	R	V	95.00%	5.93	0.426	0	0	1	1	2	3,009.43	46	73	TRUE	
SNU216_PC6_03	Isoform 2 of Nucleophosmin	IPI00220740	29,464.90	100.00%	5	8	9	0.10%	24.90%	TVSLGAGAKDELHIVEAEAMNYEGSPIKVTL	R	M	95.00%	7.77	0.607	0	0	1	2	2	3,735.89	46	80	TRUE	
SNU216_PC6_03	Isoform 1 of Keratin, type I cytoskeletal 13	IPI00009866	49,587.30	100.00%	1	1	1	0.01%	3.06%	MIGFPSSAGSVSPR	K	S	95.00%	1.97	0.45	0	1	0	0	2	1,488.66	416	429	TRUE	
SNU216_PC6_03	76 kDa protein	IPI00743778	75,757.70	99.80%	1	1	2	0.02%	2.83%	LQQQHSEQPPLQPSPVMTR	R	R	95.00%	3.32	0.374	0	0	2	0	2	2,281.08	217	235	TRUE	
SNU216_PC6_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	3	0.03%	16.10%	ATAPQTQHVSPMR	R	Q	95.00%	1.77	0.282	0	1	0	0	2	1,503.68	123	135	TRUE	
SNU216_PC6_03	Elongation factor 1-delta	IPI00023048,IPI00642971	30,990.70	100.00%	2	3	3	0.03%	16.10%	KPATPAEDDEDDDDILDFGSDNEEEDKEAAQ	K	E	95.00%	5.7	0.54	0	0	1	1	2	3,657.52	143	174	TRUE	
SNU216_PC6_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	99.80%	2	2	2	0.02%	9.66%	SSSPAPADIAQTVQEDLR	K	T	95.00%	3.03	0.521	0	1	0	0	2	1,964.90	230	247	TRUE	
SNU216_PC6_03	Ras-GTPase-activating protein-binding protein 1	IPI00012442	52,162.80	99.80%	2	2	2	0.02%	9.66%	YQDEVFGGFVTEPQEESEEEVEEPEER	R	Q	95.00%	3.27	0.433	0	0	1	0	2	3,296.33	133	159	TRUE	
SNU216_PC6_03	Isoform 1 of RNA-binding protein Raly	IPI00216044	30,364.40	99.90%	1	2	2	0.02%	11.00%	TRDDGDEEGLLTHSEEELEHSQDTDADDGA	R	-	95.00%	3.15	0.383	0	0	1	1	2	3,607.45	259	290	TRUE	
SNU216_PC6_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	4	4	0.04%	8.23%	KVVDYSQFQESDDADEDYGR	R	D	95.00%	2.91	0.484	0	0	1	1	2	2,445.97	9	28	TRUE	
SNU216_PC6_03	Nuclear ubiquitous casein and cyclin-dependent k	IPI00022145	27,296.70	99.80%	2	4	4	0.04%	8.23%	VVDYSQFQESDDADEDYGR	K	D	95.00%	2.61	0.365	0	1	1	0	2	2,317.88	10	28	TRUE	
SNU216_PC6_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00419373	39,595.10	99.70%	1	1	1	0.01%	5.82%	SSGSPYGGGYGSGGGSGGYGSR	R	R	80.70%	3.02	0.0039	0	1	0	0	2	1,990.76	355	376	TRUE	
SNU216_PC6_03	cytochrome b5 outer mitochondrial membrane pr	IPI00303954,IPI00641334	16,694.80	99.80%	1	1	1	0.01%	9.33%	RNSLKELWLVIHGR	K	V	95.00%	2.86	0.479	0	0	1	0	2	1,800.96	35	48	TRUE	
SNU216_PC6_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	4	4	0.04%	17.40%	DDDDIDLFGSDDEEESEEAKR	K	L	95.00%	2.54	0.471	0	0	1	0	2	2,508.94	96	116	TRUE	
SNU216_PC6_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	4	4	0.04%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	R	95.00%	4.63	0.142	0	0	1	0	2	4,104.59	78	115	TRUE	
SNU216_PC6_03	Elongation factor 1-beta	IPI00178440,IPI00414723	24,633.00	100.00%	3	4	4	0.04%	17.40%	YGPADVEDTTGSGATDSKDDDDIDLFGSDI	K	L	95.00%	5.72	0.121	0	0	1	1	2	4,260.69	78	116	TRUE	
SNU216_PC6_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	2	3	3	0.03%	3.95%	EGHSLEMENENLVENGADSDEDDNSFLK	K	Q	95.00%	4.31	0.58	0	0	1	0	2	3,217.28	668	695	TRUE	
SNU216_PC6_03	Isoform Beta of LIM domain and actin-binding pr	IPI00008918	85,226.30	100.00%	2	3	3	0.03%	3.95%	SKEGHSLEMENENLVENGADSDEDDNSFLI	R	Q	95.00%	5.14	0.461	0	0	1	1	2	3,432.41	666	695	TRUE	
SNU216_PC6_03	heterogeneous nuclear ribonucleoprotein A1 isofo	IPI00215965	38,747.00	100.00%	1	1	1	0.01%	3.23%	SESPKEPEQLRK	K	L	95.00%	2.35	0.3	0	0	1	0	2	1,507.72	4	15	TRUE	
SNU216_PC6_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	4	0.04%	31.30%	KEESEESDDDMGFGLFD	K	-	95.00%	3.88	0.513	0	3	0	0	2	2,029.73	99	115	TRUE	
SNU216_PC6_03	60S acidic ribosomal protein P2	IPI00008529	11,665.50	100.00%	2	2	4	0.04%	31.30%	YVASYLLAALGGNSSPSAK	R	D	95.00%	2.52	0.227	0	1	0	0	2	1,948.94	3	21	TRUE	
SNU216_PC6_03	septin 9	IPI00748715	63,634.10	99.80%	1	1	1	0.01%	2.82%	SFEVEEVETPNSTPPR	R	R	95.00%	2.37	0.385	0	1	0	0	2	1,897.82	12	27	TRUE	
SNU216_PC6_03	BET1-like protein	IPI00009772,IPI00396263	11,137.60	100.00%	2	3	3	0.03%	15.30%	AQSPGAVEEILDR	R	E	95.00%	2.74	0.53	0	1	0	0	2	1,464.67	7	19	TRUE	
SNU216_PC6_03	BET1-like protein	IPI00009772,IPI00396263	11,137.60	100.00%	2	3	3	0.03%	15.30%	AQSPGAVEEILDRENKR	R	M	95.00%	2.63	0.307	0	0	1	1	2	1,991.95	7	23	TRUE	
SNU216_PC6_03	Stathmin	IPI00479997	17,171.80	100.00%	2	2	3	0.03%	17.60%	ESVPEFPLSPPK	K	K	95.00%	1.81	0.26	0	1	0	0	2	1,406.66	29	40	TRUE	
SNU216_PC6_03	Stathmin	IPI00479997	17,171.80	100.00%	2	2	3	0.03%	17.60%	RASGQAFELILSPR	K	S	95.00%	3.1	0.347	0	0	2	0	2	1,624.82	13	26	TRUE	
SNU216_PC6_03	Methylosome subunit pICln	IPI00004795	26,215.40	100.00%	1	1	1	0.01%	11.80%	FEEESKEPVADEEEEDSDDDVEPITEFR	K	F	95.00%	1.78	0.335	0	0	1	0	2	3,394.35	86	113	TRUE	
SNU216_PC6_03	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	7,356.20	99.80%	2	3	3	0.03%	15.50%	DLLHPSPEEEKR	K	K	95.00%	1.88	0.294	0	1	1	0	2	1,529.70	6	17	TRUE	
SNU216_PC6_03	PREDICTED: similar to ribosomal protein S27	IPI00451483,IPI00472293,IP	7,356.20	99.80%	2	3	3	0.03%	15.50%	DLLHPSPEEKRK	K	H	95.00%	2.43	0.224	0	0	1	0	2	1,657.79	6	18	TRUE	
SNU216_PC6_03	Prohibitin-2	IPI00027252	33,297.60	100.00%	1	1	1	0.01%	8.70%	IYLTADNLVLNLQDESFTRGSDSLIK	R	G	95.00%	3.35	0.255	0	0	1	0	2	3,005.49	271	296	TRUE	
SNU216_PC6_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	2	2	0.02%	9.15%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	E	89.90%	4.48	0.0673	0	0	1	0	2	2,919.35	51	81	TRUE	
SNU216_PC6_03	Keratin, type I cytoskeletal 18	IPI00554788	48,823.70	100.00%	2	2	2	0.02%	9.15%	STSFRGGMGSGGLATGIAGGLAGMGGIQN	R	L	82.80%	5.16	0.0416	0	0	0	1	2	3,993.83	51	90	TRUE	
SNU216_PC6_03	Isoform 1 of Heterogeneous nuclear ribonucleopr	IPI00028888,IPI00220684	38,434.50	99.80%	1	1	1	0.01%	5.07%	IDASKNEEDEGHSNSSPR	K	H	95.00%	3.78	0.324	0	0	1	0	2	2,051.83	68	85	TRUE	

MS/MS file name, protein IPI accession name, symbol, protein molecular weight, and peptide sequence and sequence information are shown based on its description in the uniprot database. Additional columns describe protein prophet probability, unique peptide, unique spectra, percent coverage (total and sequence), XCorr and DCn scores, and calculated peptide mass.