

Supplemental Table 1. Proteins identified in immunoprecipitated brain Kv4.2 channel complexes using in-gel 1D-LC-MS/MS experiments.

Protein	Molecular weight	Mascot protein score	Scaffold protein probability	Unique peptides	Total peptides	% AA sequence coverage	Peptide sequence	Mascot ion score	m/z (observed)	Charge	Mass (observed)	Mass (theoretical)	Mass error (ppm)	Modifications
Kv4.2	71	275	100%	7	7		14 IPNANVSGSHR	97	576.300	2	1150.585	1150.584	0.9	
							GSVQELSTIQIR	82	665.876	2	1329.738	1329.725	9.6	
							YPTLLGSSER	66	619.310	2	1236.606	1236.599	5.6	
							NGLLSNLQSSSEDEPAFISK	60	1089.041	2	2176.067	2176.065	1.1	
							LQDDADTDNTGESALPTMTAR	51	1119.500	2	2236.985	2236.975	4.4	Oxidation (M)
							ILGYTLK	35	404.250	2	806.485	806.490	5.8	
							DPDIFR	32	381.690	2	761.365	761.371	7	
Kv4.1	73	184	100%	4	4		6 LANSTASVSR	85	503.270	2	1004.525	1004.525	0.3	
							NDDVSGAFVTLR	69	647.330	2	1292.645	1292.636	7.2	
							GDEVLVNVVSGR	59	622.340	2	1242.665	1242.657	6.9	
							LFAAPSR	46	381.220	2	760.425	760.423	3	
Kv4.3	74	121	100%	4	4		12 NGLLNEALELTGTPEEEQMGK	44	1145.050	2	2288.085	2288.084	0.5	Oxidation (M)
							TTHLPNSLTPATR	40	474.590	3	1420.748	1420.742	4.1	
							SMQELSTLHIQGSSEQPSLTTSR	37	816.070	3	2445.188	2445.181	3.1	Oxidation (M)
							LMDDNDSENQESMPSLSFRR	37	1180.995	2	2359.975	2359.953	9.4	2 Oxidation (M)
KChIP1	27	181	100%	3	3		14 FEDFVTALSILLR	118	762.430	2	1522.845	1522.840	3.8	
							SLQLFONVM	73	548.280	2	1094.545	1094.543	2.2	Oxidation (M)
							AIYDMMGK	34	480.710	2	959.405	959.409	3.9	2 Oxidation (M)
KChIP2	29	170	100%	5	6		18 DLGGSYDQLTGHPGPGSKK	63	671.330	3	2010.968	2010.965	1.7	
							KESLSESR	59	468.240	2	934.465	934.472	6.9	
							DLGGSYDQLTGHPGPGPSK	54	628.630	3	1882.868	1882.870	0.8	
							SMQLFDNVI	46	541.760	2	1081.505	1081.511	5.5	Oxidation (M)
							EHVESFFQK	35	575.780	2	1149.545	1149.545	0	
EHVESFFQK	33	384.190	3	1149.548	1149.545	2.3								
KChIP3	30	167	100%	5	5		19 ASDGNLLGDPGR	88	586.290	2	1170.565	1170.563	2.1	
							HQPEGLDLOAQTK	67	531.610	3	1591.808	1591.795	8	
							FFQKMDR	38	494.240	2	986.465	986.464	1	Oxidation (M)
							HTYPIILR	36	450.260	2	898.505	898.502	3.3	
							SIYDMMGR	34	502.710	2	1003.405	1003.410	4.8	2 Oxidation (M)
KChIP4	29	388	100%	9	11		38 HRPEALLELEAQS	99	810.940	2	1619.865	1619.863	1.4	
							TSSPAIQNSVEDELEMATVR	91	1097.020	2	2192.025	2192.027	0.5	Oxidation (M)
							HRPEALLELEAQS	81	540.960	3	1619.858	1619.863	3	
							KELQILYR	59	531.820	2	1061.625	1061.623	2	
							TSSPAIQNSVEDELEMATVR	48	731.680	3	2192.018	2192.027	3.8	Oxidation (M)
							DGYITKEEMLDIMK	48	573.270	3	1716.788	1716.795	3.9	2 Oxidation (M)
							QHVETFFQK	45	573.780	2	1145.545	1145.551	4.4	Gln->pyro-Glu (N-term Q)
							GLSILLR	43	386.260	2	770.505	770.501	5.2	
							SMQLFENVI	42	548.770	2	1095.525	1095.527	1.4	Oxidation (M)
							AIYDMMGK	39	480.710	2	959.405	959.409	3.9	2 Oxidation (M)
							DENIMR	36	397.180	2	792.345	792.344	2.3	Oxidation (M)
DPP6	92	861	100%	23	28		23 VTVEDLFSDFK	103	714.850	2	1427.686	1427.682	2.9	
							HLYSANTVDDFNR	98	776.370	2	1550.725	1550.711	9	
							MFDLEANEEVQK	80	734.840	2	1467.665	1467.655	7	Oxidation (M)
							IYFLSTEDLPR	71	677.360	2	1352.705	1352.698	5.8	
							KVTVEDLFSDFK	69	778.900	2	1555.785	1555.777	5.4	
							LGFLEEKDQMEAVR	68	840.920	2	1679.825	1679.819	3.9	Oxidation (M)
							MQGNVMELVGSNPPQR	65	894.927	2	1787.840	1787.829	5.9	2 Oxidation (M)
							LYASAFSER	63	522.260	2	1042.505	1042.508	2.7	
							VAVTWLNR	60	479.780	2	957.545	957.540	6.1	
							IPHGDPQSLDPPEVSNK	59	634.320	3	1899.938	1899.933	2.9	
							ILSYDEKR	59	512.280	2	1022.545	1022.540	5.6	
							RLGFLEEKDQMEAVR	57	612.980	3	1835.918	1835.920	0.9	Oxidation (M)
							LPTATAKEEEEEED	55	731.340	2	1460.665	1460.652	9.3	
							IHFQHTAELITQLIK	55	598.010	3	1791.008	1791.004	2.1	
							QNKEEYVFSK	50	530.750	2	1059.485	1059.487	1.7	Gln->pyro-Glu (N-term Q)
							EYITMVK	47	531.760	2	1061.505	1061.510	4.5	Oxidation (M)
MQGNVMELVGSNPPQR	46	596.950	3	1787.828	1787.829	0.7	2 Oxidation (M)							
LLQEVRR	46	379.230	2	756.445	756.449	5.1								

						IPHGDPQSLDPPEVSNK	46	950.980	2	1899.945	1899.933	6.7
						HLYSANTVDDFNR	45	517.910	3	1550.708	1550.711	2
						VQDKLPTATAK	44	586.340	2	1170.665	1170.661	3.9
						LGFLLEEKDQMEAVR	44	560.950	3	1679.828	1679.819	5.5 Oxidation (M)
						YEISPK	41	426.210	2	850.405	850.407	2
						LGFLLEEK	41	418.230	2	834.445	834.449	3.8
						YLGHLGLDNR	40	579.310	2	1156.605	1156.599	5.4
						VQDKLPTATAK	36	391.230	3	1170.668	1170.661	6.2
						LPTATAK	34	351.210	2	700.405	700.412	9.2
						EQYDKTR	31	526.770	2	1051.525	1051.530	4.1
DPP10	91	526	100%	15	16	21 VPVVSLLHITDNPSR	83	767.430	2	1532.845	1532.831	9.3
						YFLENNVSMK	80	687.340	2	1372.665	1372.670	3 Oxidation (M)
						QLYSASTEGLLNR	74	726.380	2	1450.745	1450.742	2.6
						IYFLSTESSPQGR	60	742.873	2	1483.731	1483.731	0.1
						GFGLHNPEPR	58	562.290	2	1122.565	1122.557	7.4
						VPVVSLLHITDNPSR	55	511.950	3	1532.828	1532.831	1.9
						SEQITVR	55	416.730	2	831.445	831.445	0.5
						ILAYDETTQK	54	591.310	2	1180.605	1180.598	6.6
						ATQSQPADQELGNSPPQR	51	670.990	3	2009.948	2009.940	3.9
						GEFHIAFLVQSK	49	553.950	3	1658.828	1658.824	2.5 Oxidation (M)
						QNEEPVFSR	48	553.270	2	1104.525	1104.520	4.9
						VHFQHSALIK	42	436.910	3	1307.708	1307.699	7.3
						VLQEIHR	40	447.760	2	893.505	893.508	3.1
						QEQQPTPGAR	40	556.280	2	1110.545	1110.542	3.3
						EEVSVLPQEPPEDE	39	814.860	2	1627.705	1627.710	2.8
						QPYIDSK	38	425.720	2	849.425	849.423	2.6

Supplemental Table 2. Proteins identified in immunoprecipitated brain Kv4.2 channel complexes using in-solution 1D-LC-MS/MS experiments.

Protein	Molecular weight	Mascot protein score	Scaffold protein probability	Unique peptides	Total peptides	% AA sequence coverage	Peptide sequence	Mascot ion score	m/z (observed)	Charge	Mass (observed)	Mass (theoretical)	Mass error (ppm)	Modifications							
Kv4.2	71	730	100%	12	16		22 ENAERLQDDADTDNTGESALPTMTAR	96	941.087	3	2820.239	2820.247	2.7								
							AAAIGWMPVASGMPAPPRQER	92	764.056	3	2289.146	2289.151	2								
							LQDDADTDNTGESALPTMTAR	84	1111.494	2	2220.973	2220.980	3.2								
							TQDALIVLNVSGTR	81	743.913	2	1485.812	1485.815	2.1								
							AAAIGWMPVASGMPAPPRQER	78	769.388	3	2305.141	2305.146	2.1	Oxidation (M)							
							RNGLLSNQLQSSEDEPAFISK	76	778.394	3	2332.161	2332.166	1.8								
							SGSANAYMQSK	73	572.257	2	1142.499	1142.503	2.8								
							SSLNAKMEECVK	70	706.329	2	1410.644	1410.648	2.9	Oxidation (M)							
							SGSANAYMQSKR	63	650.307	2	1298.600	1298.604	2.6								
							IPNANVSGSHR	62	384.535	3	1150.583	1150.584	1.5								
							SGSANAYMQSKR	59	433.874	3	1298.601	1298.604	1.9								
							TFRIPNANVSGSHR	57	519.274	3	1554.800	1554.802	1.1								
							AAAIGWMPVASGMPAPPRQER	54	774.719	3	2321.136	2321.141	2.2	2 Oxidation (M)							
							SGSANAYMQSK	47	580.255	2	1158.495	1158.498	2.5	Oxidation (M)							
							CVERTPLNSNR	39	440.222	3	1317.644	1317.646	1.6								
							IYHQNRADK	37	636.824	2	1271.634	1271.637	2.2								
							Kv4.1	73	284	100%	8	9		16 LANSTASVSR	72	503.269	2	1004.523	1004.525	2	
														NTLDRYPDTLLGSSEK	69	603.638	3	1807.891	1807.895	2.1	
														AAAVGWLPLAQQLPPAPEVK	61	718.408	3	2152.201	2152.204	1.7	
														AAAVGWLPLAQQLPPAPEVK	54	1077.106	2	2152.197	2152.204	3.2	
														NSSLGTPCLLPETVK	49	808.420	2	1614.826	1614.829	1.8	
														ASRGDEVLVVNVSGR	48	519.949	3	1556.825	1556.827	1.6	
SGTTNAFLQYK	43	615.310	2	1228.606	1228.609	2.1															
RSPAPQTR	40	456.753	2	911.492	911.494	2.3															
IYHQNRADK	37	636.824	2	1271.634	1271.637	2.2															
Kv4.3	74	844	100%	14	22									29 RNGLLNEALELTGTPEEEQMGK	119	810.403	3	2428.186	2428.190	1.8	
							SMQELSTLHIQSQEQSLTTSR	106	810.734	3	2429.181	2429.186	1.8								
							TTGLSYLVDDPLLSVR	102	874.973	2	1747.932	1747.936	2								
							TTGLSYLVDDPLLSVR	102	583.652	3	1747.933	1747.936	1.3								
							SMQELSTLHIQSQEQSLTTSR	89	816.066	3	2445.176	2445.181	1.6	Oxidation (M)							
							KTTHLPNSNLPATR	74	517.285	3	1548.834	1548.837	1.9								
							RQDELIVLNVSGRR	65	552.315	3	1653.924	1653.927	1.9								
							TGSSNAYLHSCR	63	440.892	3	1319.656	1319.658	1.9								
							TGSSNAYLHSK	59	388.859	3	1163.555	1163.557	1.6								
							SKKTTHLPNSNLPATR	57	588.994	3	1763.960	1763.964	2.2								
							EFFFNEDTK	55	588.763	2	1175.511	1175.514	1.7								
							TTLERYPDTLLGSTEK	54	608.650	3	1822.927	1822.931	2.1								
							TGSSNAYLHSK	53	582.785	2	1163.555	1163.557	2.1								
							TTHLPNSNLPATR	50	711.377	2	1420.739	1420.742	2.2								
							TTLERYPDTLLGSTEK	46	912.471	2	1822.927	1822.931	2.2								
							ADDGLRPNCK	42	382.517	3	1144.528	1144.529	1.5								
							AAAIGWMPVANCPMLAPADK	42	727.692	3	2180.053	2180.058	2.1								
							TTHLPNSNLPATR	41	474.587	3	1420.740	1420.742	1.8								
							AAAIGWMPVANCPMLAPADK	41	1091.034	2	2180.053	2180.058	2.3								
							IYHQNRADK	37	636.824	2	1271.634	1271.637	2.2								
							ADDGLRPNCK	36	573.271	2	1144.527	1144.529	2.2								
							SKKTTHLPNSNLPATR	33	441.998	4	1763.961	1763.964	1.5								
KChIP1	27	178	100%	4	4		18 NECPSGVVNEETFK	106	805.360	2	1608.705	1608.709	2.2								
							SLQLFQNVN	59	540.280	2	1078.546	1078.548	1.5								
							AIYDMMGK	36	480.711	2	959.407	959.409	1.9	2 Oxidation (M)							
							ELQVLYR	31	460.763	2	919.511	919.513	1.4								
KChIP2	29	307	100%	6	8		20 NECPSGIVNEENFK	110	818.865	2	1635.716	1635.720	2.2								
							ESLSSESRDLGSDYDQLTGHPGSPK	78	891.418	3	2671.231	2671.236	2								
							GFKNECPSGIVNEENFK	68	656.974	3	1967.901	1967.905	2								
							SMQLFDNVI	53	541.762	2	1081.510	1081.511	1.3	Oxidation (M)							
							SMQLFDNVI	47	533.765	2	1065.515	1065.516	1.5								
							ESLSSESRDLGSDYDQLTGHPGSPK	35	700.839	4	2799.325	2799.331	2								
							ESLSSESRDLGSDYDQLTGHPGSPK	32	668.815	4	2671.230	2671.236	2.4								
ELQVLYR	31	460.763	2	919.511	919.513	1.4															
KChIP3	30	260	100%	5	7		29 HOPEGLDQLQAQTK	80	531.605	3	1591.792	1591.795	1.9								

						HOPEGLDQLOAQT	80	796.903	2	1591.792	1591.795	2.3
						DENIMNSMLFENVI	69	898.912	2	1795.809	1795.812	1.6
						ASDGNLLGDPGRIPLSKR	64	622.677	3	1865.008	1865.012	1.9
						HTYPILREDAPLEHVER	46	519.521	4	2074.056	2074.060	1.6
						ASDGNLLGDPGRIPLSKR	35	467.259	4	1865.009	1865.012	1.6
						ESIKWQRPR	31	400.559	3	1198.655	1198.657	1.6
KChIP4	29	744	100%	10	18	43 NECPGSGVNEETFK	106	805.360	2	1608.705	1608.709	2.2
						TSSPAIQNSVEDELEMATVR	97	1097.017	2	2192.019	2192.027	3.3 Oxidation (M)
						HRPEALLELEAOSK	92	810.937	2	1619.860	1619.863	2
						HRPEALLELEAOSK	83	540.961	3	1619.861	1619.863	1.3
						HRPEALLELEAOSK	79	540.961	3	1619.861	1619.863	1.4
						DGVVTIDEFIESCQKDENIMR	77	833.388	3	2497.141	2497.146	2.1
						DGVVTIDEFIESCQKDENIMR	76	838.723	3	2513.146	2513.141	1.7 Oxidation (M)
						TSSPAIQNSVEDELEMATVR	75	1089.015	2	2176.015	2176.032	7.4
						TSSPAIQNSVEDELEMATVR	61	731.681	3	2192.022	2192.027	2.3 Oxidation (M)
						DGVVTIDEFIESCQKDENIMR	61	833.390	3	2497.148	2497.146	0.5
						CTYPVLKEDAPR	53	483.577	3	1447.711	1447.713	1.6
						QHVETFFOK	49	573.782	2	1145.549	1145.551	1.6 Gln->pyro-Glu (N-term Q)
						SMQLFENVI	43	548.770	2	1095.525	1095.527	1.7 Oxidation (M)
						QHVETFFOK	41	388.532	3	1162.575	1162.577	1.5
						DENIMR	41	777.354	1	776.347	776.349	2.2
						AIYDMMGK	36	480.711	2	959.407	959.409	1.9 2 Oxidation (M)
						QHVETFFOKMDK	35	513.253	3	1536.737	1536.740	1.5
						DENIMR	34	389.181	2	776.347	776.349	1.7
DPP6	92	825	100%	25	29	28 MFDLEANEEVQK	98	726.836	2	1451.658	1451.660	1.7
						VSALEDQQLIHATADEK	91	710.034	3	2127.080	2127.085	2.1
						KHEDESEAWLHRQNEEPPVFSK	81	649.560	4	2594.209	2594.215	2.1
						IYFLSTEDLPR	71	677.354	2	1352.694	1352.698	2.5
						LYASAFSER	69	522.261	2	1042.507	1042.508	1.4
						IHFQHTAELITQLIK	65	598.008	3	1791.002	1791.004	1.4
						VAVTWLNLR	60	479.776	2	957.538	957.540	1.5
						IPHGDQSLDPPEVSNK	59	634.317	3	1899.929	1899.933	2.1
						VQDKLPTATAKEEEED	58	644.639	3	1930.897	1930.901	2.1
						LPTATAKEEEED	56	731.331	2	1460.648	1460.652	2.5
						RRMFDLEANEEVQK	51	594.291	3	1779.852	1779.857	3 Oxidation (M)
						RRMFDLEANEEVQK	51	588.960	3	1763.859	1763.862	1.9
						RLGFLEEKDQMEAVR	51	607.648	3	1819.922	1819.925	1.7
						DQMEAVR	51	424.699	2	847.384	847.386	1.8
						YLGHLGLDNRAYEMTK	45	627.648	3	1879.921	1879.925	2
						AIRYEISPDK	45	596.321	2	1190.627	1190.630	2
						LLQEVN	44	379.231	2	756.448	756.449	1.6
						KGSVILR	42	386.755	2	771.495	771.497	1.7
						CDGRGSGFOGTK	41	635.284	2	1268.553	1268.557	2.7
						GSGFOGTK	40	391.195	2	780.375	780.377	1.5
						YLGHLGLDNR	38	579.305	2	1156.596	1156.599	2.4
						AYEMTK	38	371.675	2	741.336	741.337	1.1
						AIRYEISPDK	38	397.883	3	1190.628	1190.630	1.6
						IHDPEAK	37	405.210	2	808.406	808.408	2
						ILSYDEK	35	867.443	1	866.436	866.439	2.8
						CDGRGSGFOGTK	35	423.859	3	1268.555	1268.557	1.7
						EFIYRER	32	506.763	2	1011.512	1011.514	1.8
						DQMEAVR	32	432.697	2	863.379	863.381	1.8 Oxidation (M)
						AINDRQMPK	31	544.778	2	1087.542	1087.544	2.2 Oxidation (M)
DPP10	91	652	100%	19	20	24 KYEMTSDTWLSK	92	744.854	2	1487.694	1487.697	2
						YFLLENNSVMK	78	679.344	2	1356.673	1356.675	1.6
						ILHIDDYELPLQLSFPK	75	681.037	3	2040.089	2040.093	1.9
						GYGGYIASMILK	74	636.835	2	1271.656	1271.658	1.5
						MKQEQQPTPGAR	71	693.842	2	1385.669	1385.672	2.6 Oxidation (M)
						LYASAFSER	69	522.261	2	1042.507	1042.508	1.4
						IGSVEAKDQVAAVK	65	707.897	2	1413.780	1413.783	2.2
						VPVVSLLHITDNPSR	57	511.950	3	1532.829	1532.831	1.6
						YVLLAYDVK	53	542.307	2	1082.599	1082.601	1.8
						CGAVVAPISDMK	50	624.309	2	1246.603	1246.605	1.9
						QEQQPTPGAR	49	556.277	2	1110.539	1110.542	2.2
						VHFQHSALIK	47	436.906	3	1307.697	1307.699	1.6

FTGALYPK	47	448.747	2	895.479	895.480	0.9
FFMTVPVK	45	484.767	2	967.519	967.520	1.4
SEQITVR	44	416.729	2	831.444	831.445	1.7
HSLSPDLK	42	448.745	2	895.475	895.476	1.7
QNEEPVFSRDGSK	41	746.853	2	1491.692	1491.695	2.4
QNEEPVFSR	40	553.266	2	1104.518	1104.520	2
QPYIDSK	37	425.718	2	849.422	849.423	2
RLSIFGK	35	410.755	2	819.495	819.497	1.4

Supplemental Table 3. Proteins identified in immunoprecipitated brain Kv4.2 channel complexes using MudPIT experiments.

Protein	Molecular weight	Mascot protein score	Scaffold protein probability	Unique peptides	Total peptides	% AA sequence coverage	Peptide sequence	Mascot ion score	m/z (observed)	Charge	Mass (observed)	Mass (theoretical)	Mass error (ppm)	Modifications
Kv4.2	71	1271	100%	8	17		14 LQDDADTDNTGESALPTMTAR	126	1111.50	2	2220.98	2220.98	1.3	
							NGLLSNQLQSSEDEPAFISK	120	1088.99	2	2175.97	2176.06	43.7	
							LQDDADTDNTGESALPTMTAR	118	1111.91	2	2221.81	2220.98	77.9	
							NGLLSNQLQSSEDEPAFISK	107	1089.34	2	2176.67	2176.06	181.6	
							IPNANVSGSHR	90	576.78	2	1151.55	1150.58	29	
							RNGLLSNQLQSSEDEPAFISK	89	1167.18	2	2332.35	2332.17	77.8	
							NGLLSNQLQSSEDEPAFISK	88	1089.42	2	2176.82	2176.06	110.8	
							RNGLLSNQLQSSEDEPAFISK	78	1167.47	2	2332.93	2332.17	101.3	
							TQDALIVLNVSGTR	74	744.08	2	1486.14	1485.82	219.9	
							TQDALIVLNVSGTR	72	744.33	2	1486.64	1485.82	119.3	
							GSVQELSTGIQR	68	665.93	2	1329.85	1329.73	94.4	
							TRIPNANVSGSHR	56	778.82	2	1555.62	1554.80	116.1	
							TQDALIVLNVSGTR	42	744.24	2	1486.46	1485.82	238.4	
							RNGLLSNQLQSSEDEPAFISK	40	778.71	3	2333.10	2332.17	27.9	
							IYHQNQR	36	479.73	2	957.45	957.48	30.7	
							IYHQNQR	35	479.76	2	957.51	957.48	31.9	
							IYHQNQR	32	479.83	2	957.64	957.48	170.8	
Kv4.1	73	260	100%	3	4		8 LAEDEEAQAGEGALPAGSSLR	80	1149.29	2	2296.57	2296.08	214.1	
							LAEDEEAQAGEGALPAGSSLR	79	1149.48	2	2296.94	2296.08	63.7	
							SGTTNAFLQYK	56	615.74	2	1229.46	1228.61	123	
							NSSLGTPCLLPETVK	45	808.74	2	1615.47	1614.83	219.8	
Kv4.3	74	1130	100%	8	19		15 QDELIVLNVSGR	90	672.00	2	1341.99	1341.73	200.8	
							QDELIVLNVSGR	90	672.28	2	1342.54	1341.73	141.2	
							QDELIVLNVSGR	77	672.27	2	1342.52	1341.73	154.5	
							TTGLSYLVDDPILLSVR	76	875.36	2	1748.71	1747.94	130.8	
							TTGLSYLVDDPILLSVR	75	875.30	2	1748.59	1747.94	198.5	
							TTGLSYLVDDPILLSVR	72	875.30	2	1748.58	1747.94	201.9	
							KTTHLPNSNLPATR	66	775.77	2	1549.52	1548.84	206.8	
							QDELIVLNVSGR	66	672.36	2	1342.70	1341.73	16.8	
							KTTHLPNSNLPATR	61	711.46	2	1420.91	1420.74	120.7	
							TGSSNAYLHSK	58	583.17	2	1164.33	1163.56	196.1	
							TTGLSYLVDDPILLSVR	56	875.45	2	1748.89	1747.94	25	
							KTTHLPNSNLPATR	51	775.86	2	1549.71	1548.84	80.9	
							TTTHLPNSNLPATR	51	711.76	2	1421.51	1420.74	162.1	
							NGLLNEALELGTPEEEQMGK	50	1137.44	2	2272.87	2272.09	95.8	
							TTGLSYLVDDPILLSVR	50	875.35	2	1748.69	1747.94	139.5	
							TGSSNAYLHSK	43	583.12	2	1164.23	1163.56	277.9	
							IYHQNQR	35	479.76	2	957.51	957.48	31.9	
IYHQNQR	32	479.83	2	957.64	957.48	170.8								
TTLERYPTLLGSTEK	31	912.89	2	1823.76	1822.93	94.5								
KChIP2	31	109	100%	2	2		10 DLDGSYDQLTGHPGPKS	80	942.87	2	1883.72	1882.87	79	
							EHVESFFQK	29	576.17	2	1150.32	1149.55	199.7	
KChIP3	33	564	100%	4	10		13 HOPEGLDQLQAQTK	79	796.99	2	1591.96	1591.80	101.4	
							HOPEGLDQLQAQTK	74	797.23	2	1592.45	1591.80	215.8	
							HOPEGLDQLQAQTK	68	797.21	2	1592.40	1591.80	245.3	
							HOPEGLDQLQAQTK	59	797.27	2	1592.52	1591.80	172.6	
							HOPEGLDQLQAQTK	57	797.32	2	1592.63	1591.80	106.5	
							HOPEGLDQLQAQTK	52	797.14	2	1592.27	1591.80	298.5	
							EDAPLEHVER	52	597.84	2	1193.66	1193.57	76.4	
							EDAPLEHVER	51	598.15	2	1194.29	1193.57	228.5	
							KELQSLYR	40	518.95	2	1035.89	1035.57	310.5	
							ELQSLYR	32	908.63	1	907.62	907.48	162.4	
KChIP4	29	664	100%	8	12		38 TSSPAIQNSVEDELEMATVR	102	1089.03	2	2176.05	2176.03	9	
							RVESISAQLEEASSTGGFLYAQNNTK	79	1401.11	2	2800.20	2799.37	58.5	
							RVESISAQLEEASSTGGFLYAQNNTKR	74	986.45	3	2956.34	2955.47	44.2	
							HRPEALELLEAQSK	70	811.39	2	1620.76	1619.86	61.8	
							RVESISAQLEEASSTGGFLYAQNNTKR	66	986.47	3	2956.38	2955.47	29.7	
							FTKKELQILYR	50	720.39	2	1438.76	1437.83	52.5	
							DGVVTIDFIESCQK	43	870.65	2	1739.28	1738.81	271.6	
							QHVETFFQK	43	582.65	2	1163.28	1162.58	258.2	
							KELQILYR	40	532.21	2	1062.41	1061.62	197.2	
							KELQILYR	35	531.96	2	1061.90	1061.62	258.6	
							QHVETFFQK	32	582.72	2	1163.42	1162.58	132.6	
							QHVETFFQK	30	1163.65	1	1162.64	1162.58	56.4	

32	VSALEDOQFLIHATADEK	124	1064.90	2	2127.78	2127.08	141.6
	EGVIYNGLSDWLYEEEEILK	111	1135.37	2	2268.72	2269.12	176.2
	VSALEDOQFLIHATADEK	111	1064.46	2	2126.90	2127.08	85.2
	VSALEDOQFLIHATADEK	106	1064.56	2	2127.10	2127.08	6.8
	VTEDLFSDFK	104	715.31	2	1428.60	1427.68	60.3
	KKVTEDLFSDFK	102	843.32	2	1684.62	1683.87	150.9
	VTEDLFSDFK	99	715.27	2	1428.52	1427.68	111.5
	VTEDLFSDFK	99	715.13	2	1428.24	1427.68	306.9
	VTEDLFSDFK	99	715.32	2	1428.63	1427.68	37.9
	VTEDLFSDFK	98	715.32	2	1428.62	1427.68	45.6
	KKVTEDLFSDFK	96	843.34	2	1684.67	1683.87	122.5
	KVTEDLFSDFK	92	779.38	2	1556.75	1555.78	14.8
	VSALEDOQFLIHATADEK	90	1064.81	2	2127.60	2127.08	230
	KKVTEDLFSDFK	89	842.76	2	1683.50	1683.87	223.3
	VTEDLFSDFK	84	715.25	2	1428.48	1427.68	142.4
	HLYSANTVDDFNR	83	776.40	2	1550.78	1550.71	44.6
	IYFLSTEDLPR	83	677.85	2	1353.69	1352.70	6.4
	IYFLSTEDLPR	81	677.42	2	1352.83	1352.70	97.7
	NKIYFLSTEDLPR	80	798.33	2	1594.65	1594.84	117
	HLYSANTVDDFNR	79	776.77	2	1551.53	1550.71	118.9
	KVTEDLFSDFK	79	779.00	2	1555.98	1555.78	128.4
	KVTEDLFSDFK	79	779.27	2	1556.53	1555.78	157.6
	NKIYFLSTEDLPR	79	798.43	2	1594.85	1594.84	9
	VSALEDOQFLIHATADEK	79	710.33	3	2127.97	2127.08	54.5
	EGVIYNGLSDWLYEEEEILK	78	1135.53	2	2269.05	2269.12	29
	IYFLSTEDLPR	78	677.49	2	1352.96	1352.70	192.9
	NKIYFLSTEDLPR	77	798.86	2	1595.70	1594.84	85.6
	HLYSANTVDDFNR	74	776.43	2	1550.84	1550.71	81.4
	HLYSANTVDDFNR	74	776.78	2	1551.54	1550.71	113.3
	IYFLSTEDLPR	74	677.71	2	1353.40	1352.70	220.1
	IYFLSTEDLPR	74	677.75	2	1353.49	1352.70	155.8
	KKVTEDLFSDFK	74	843.01	2	1684.00	1683.87	74.7
	EGVIYNGLSDWLYEEEEILK	73	1135.96	2	2269.91	2269.12	89.8
	VTEDLFSDFKIHDPK	73	1110.07	2	2218.12	2218.08	18
	YEISPDKEYVLFVSNVPEVYQHSHTGYY	73	1285.82	3	3854.43	3853.85	108.8
	HLYSANTVDDFNR	72	776.69	2	1551.37	1550.71	220.3
	IYFLSTEDLPR	72	677.70	2	1353.39	1352.70	230.6
	EGVIYNGLSDWLYEEEEILK	71	1135.84	2	2269.66	2269.12	199.1
	VAVFGKDYGGYLSTYILPAK	71	1081.92	2	2161.83	2161.15	146.4
	HLYSANTVDDFNR	70	776.73	2	1551.45	1550.71	170
	VSALEDOQFLIHATADEK	70	1064.35	2	2126.69	2127.08	187.7
	IYFLSTEDLPR	69	677.79	2	1353.56	1352.70	98.8
	KVTEDLFSDFK	68	779.38	2	1556.74	1555.78	23.2
	NKIYFLSTEDLPR	68	798.82	2	1595.63	1594.84	130.1
	MFDLEANEVQK	66	726.90	2	1451.79	1451.66	92.7
	VAVFGKDYGGYLSTYILPAK	66	1082.08	2	2162.14	2161.15	3.9
	VTEDLFSDFK	66	715.09	2	1428.17	1427.68	339.4
	HLYSANTVDDFNR	64	1551.72	1	1550.71	1550.71	0.4
	MFDLEANEVQK	64	727.04	2	1452.06	1451.66	272.5
	IPHGDQPQLDPPEVSNK	63	950.58	2	1899.15	1899.93	112.1
	KKVTEDLFSDFK	63	843.44	2	1684.86	1683.87	8.3
	LYASAFSER	63	522.64	2	1043.27	1042.51	232.7
	VTEDLFSDFK	63	715.19	2	1428.37	1427.68	217.9
	MFDLEANEVQK	62	726.90	2	1451.78	1451.66	81
	KVTEDLFSDFK	61	778.93	2	1555.85	1555.78	50
	VSALEDOQFLIHATADEK	61	1064.56	2	2127.10	2127.08	5
	VTEDLFSDFKIHDPK	61	740.23	3	2217.67	2218.08	182.5
	IPHGDQPQLDPPEVSNK	59	951.36	2	1900.71	1899.93	114.6
	IPHGDQPQLDPPEVSNK	59	951.00	2	1899.99	1899.93	32.6
	VTEDLFSDFKIHDPK	59	1109.95	2	2217.88	2218.08	91
	NKIYFLSTEDLPR	58	798.91	2	1595.80	1594.84	22.9
	VTEDLFSDFK	58	714.88	2	1427.74	1427.68	43.2
	EGVIYNGLSDWLYEEEEILK	57	1135.87	2	2269.72	2269.12	172.7
	KGSVILR	56	386.93	2	771.85	771.50	462.7
	KVTEDLFSDFK	56	779.37	2	1556.73	1555.78	27.2
	VTEDLFSDFK	56	714.77	2	1427.53	1427.68	107.2
	KVTEDLFSDFK	55	779.26	2	1556.51	1555.78	171.1
	VAVFGKDYGGYLSTYILPAK	55	1082.06	2	2162.10	2161.15	23.3
	VVSTGKEGVIYNGLSDWLYEEEEILK	55	947.68	3	2840.01	2840.45	153
	HLYSANTVDDFNR	54	776.47	2	1550.92	1550.71	133.1
	KKVTEDLFSDFK	54	842.96	2	1683.91	1683.87	24.8
	VVSTGKEGVIYNGLSDWLYEEEEILK	54	947.59	3	2839.75	2840.45	107.5
	KGSVILR	53	386.88	2	771.74	771.50	311
	QNEEPVFSKDG	53	703.74	2	1405.46	1404.66	145.7

ILSYDEKR	52	512.40	2	1022.79	1022.54	246.4
HLYSANTVDDFN	51	776.66	2	1551.30	1550.71	267.9
VTVEDLFSDFKIHDP	51	1110.53	2	2219.05	2218.08	12.5
WISNKEFIYR	51	678.82	2	1355.62	1354.70	58.6
WISNKEFIYR	51	678.75	2	1355.49	1354.70	154
LYASAFSER	50	522.30	2	1042.59	1042.51	79.1
VTVEDLFSDFKIHDP	50	740.62	3	2218.85	2218.08	103.6
ILSYDEKR	49	512.69	2	1023.37	1022.54	164
ILSYDEKR	48	512.62	2	1023.23	1022.54	304.9
IPHGDQSLDPPEV	48	951.41	2	1900.81	1899.93	62.5
IPHGDQSLDPPEV	47	951.35	2	1900.68	1899.93	130.9
QNEEPVFSK	47	703.66	2	1405.30	1404.66	255.9
VSALEDQQFLIHATA	47	710.31	3	2127.90	2127.08	84.5
IPHGDQSLDPPEV	46	951.29	2	1900.56	1899.93	198.3
YGLHGLDNR	46	579.42	2	1156.83	1156.60	201.4
EGVIYNGLSDWLYE	45	1135.80	2	2269.59	2269.12	208.9
IHDPEAK	45	405.56	2	809.10	808.41	381.3
IYFLSTEDLPR	45	1353.67	1	1352.66	1352.70	24.3
HLYSANTVDDFN	44	776.32	2	1550.62	1550.71	59.6
VTVEDLFSDFKIHDP	43	1110.42	2	2218.83	2218.08	112.6
IYFLSTEDLPR	42	1353.80	1	1352.79	1352.70	68.1
TMLKEQYIDKTR	42	763.75	2	1525.49	1524.80	202.7
WISNKEFIYR	42	678.82	2	1355.62	1354.70	61.7
YGLHGLDNR	42	579.52	2	1157.02	1156.60	360.3
ILSYDEKR	41	512.67	2	1023.33	1022.54	202.4
ILSYDEKR	41	512.58	2	1023.15	1022.54	384.1
IPHGDQSLDPPEV	41	634.34	3	1900.00	1899.93	37.9
KKVTVEDLFSDFK	40	843.26	2	1684.50	1683.87	218.1
TMLKEQYIDK	40	635.31	2	1268.60	1267.65	41.2
VSALEDQQFLIHATA	40	1065.04	2	2128.07	2127.08	5.3
HLYSANTVDDFN	39	1551.82	1	1550.81	1550.71	66.6
ILSYDEKR	39	512.37	2	1022.72	1022.54	176
IPHGDQSLDPPEV	39	951.36	2	1900.70	1899.93	123.6
VTVEDLFSDFKIHDP	39	1110.48	2	2218.94	2218.08	63.9
ILSYDEKR	38	512.70	2	1023.38	1022.54	155.4
ILSYDEKR	38	512.64	2	1023.27	1022.54	259.9
IYFLSTEDLPR	38	677.71	2	1353.41	1352.70	213.4
QNEEPVFSK	38	539.63	2	1077.25	1076.51	245.3
QNEEPVFSK	38	539.55	2	1077.09	1076.51	395.8
WISNKEFIYR	37	452.88	3	1355.60	1354.70	73.4
ERKGSVILR	36	529.33	2	1056.65	1056.64	10.8
IHDPEAK	36	405.34	2	808.67	808.41	320
IPHGDQSLDPPEV	36	634.52	3	1900.53	1899.93	213.1
IYFLSTEDLPR	36	677.56	2	1353.11	1352.70	307.5
QNEEPVFSK	36	1077.59	1	1076.58	1076.51	60.2
VSALEDQQFLIHATA	36	710.04	3	2127.10	2127.08	8.9
AYEMTK	35	742.45	1	741.44	741.34	145.7
AYEMTK	35	742.47	1	741.46	741.34	169.9
IHDPEAK	35	809.53	1	808.53	808.41	145.7
EQYIDKTR	34	526.81	2	1051.61	1051.53	74.9
FFFVR	34	358.45	2	714.88	714.39	690.5
VTVEDLFSDFKIHDP	34	740.62	3	2218.84	2218.08	109.8
IPHGDQSLDPPEV	33	951.33	2	1900.64	1899.93	155.1
IPHGDQSLDPPEV	33	951.26	2	1900.51	1899.93	220.4
VAVFGKDYGGVLS	33	721.50	3	2161.47	2161.15	150.2
EQYIDK	32	795.44	1	794.43	794.38	61.3
FFFVR	32	358.51	2	715.00	714.39	537.1
GSVILR	32	323.04	2	644.07	643.40	516
ILSYDEK	31	867.54	1	866.53	866.44	109.8
KGSVILR	31	772.71	1	771.70	771.50	267
WISNK	31	647.34	1	646.33	646.34	20.2
FFFVR	30	358.33	2	714.65	714.39	368.5
FFFVR	30	358.55	2	715.08	714.39	432.1
IHDPEAK	30	809.47	1	808.46	808.41	62.8
KFFFVR	30	422.40	2	842.79	842.48	371.9
QNEEPVFSK	30	1077.51	1	1076.50	1076.51	13
24 VPVSLHITDNPSR	95	767.72	2	1533.43	1532.83	263.8
ILHIDDYELPLQLS	90	1021.50	2	2040.99	2040.09	50.8
VPVSLHITDNPSR	88	767.81	2	1533.61	1532.83	146.9
IGSVEAKDQVA	79	708.19	2	1414.36	1413.78	296.4
ILHIDDYELPLQLS	70	1021.53	2	2041.04	2040.09	26.3
ILHIDDYELPLQLS	69	1021.35	2	2040.69	2040.09	197.8
IYFLSTESSPQGR	69	742.96	2	1483.91	1483.73	120

DPP10 91 2097 100% 18 40

							ILHIDDYELPLQLSFPK	68	1021.55	2	2041.09	2040.09	0.8
							ILHIDDYELPLQLSFPK	65	1021.46	2	2040.90	2040.09	94.9
							IYFLSTESSPOGR	65	743.20	2	1484.38	1483.73	235.1
							LYASAFSER	63	522.64	2	1043.27	1042.51	232.7
							FHVDWDSVLIDTDNVIVAR	62	1107.93	2	2213.84	2213.11	123
							QLYSASTEGLLNLR	62	726.75	2	1451.49	1450.74	173.6
							ILAYDETTQK	61	591.64	2	1181.27	1180.60	274.1
							ILAYDETTQK	59	591.37	2	1180.72	1180.60	106.8
							FHVDWDSVLIDTDNVIVAR	56	1107.89	2	2213.77	2213.11	155.5
							ILHIDDYELPLQLSFPK	55	1021.41	2	2040.81	2040.09	139
							QNEEPVFSR	53	553.37	2	1104.72	1104.52	178.9
							YLLKOPYIDSK	52	684.55	2	1367.08	1366.75	241.6
							FTGALYPK	50	448.91	2	895.81	895.48	373.3
							LYASAFSER	50	522.30	2	1042.59	1042.51	79.1
							YFLENNNSVMK	49	679.57	2	1357.12	1356.67	327.3
							FTGALYPK	47	449.07	2	896.13	895.48	393.8
							FHVDWDSVLIDTDNVIVAR	43	1107.83	2	2213.65	2213.11	210.6
							GFGLHNPEPR	42	562.71	2	1123.41	1122.56	126.6
							YFLENNNSVMK	42	679.50	2	1356.98	1356.67	227.6
							FTGALYPK	41	448.84	2	895.66	895.48	196.8
							HSLSPDLK	41	449.07	2	896.13	895.48	387.1
							QNEEPVFSR	41	553.66	2	1105.31	1104.52	193.1
							YLLKOPYIDSK	40	684.54	2	1367.07	1366.75	237.2
							LSLEELLGK	37	501.62	2	1001.22	1000.58	359.5
							ILHIDDYELPLQLSFPK	36	681.36	3	2041.06	2040.09	14.3
							QYPYPK	36	795.38	1	794.37	794.40	28.3
							LSLEELLGK	34	501.76	2	1001.50	1000.58	78.7
							QNEEPVFSR	33	1105.73	1	1104.72	1104.52	179.9
							AKQYPYPK	32	497.79	2	993.57	993.53	45.6
							HLTSGNWEVIR	31	656.82	2	1311.62	1310.67	40.8
							HSLSPDLK	31	448.74	2	895.46	895.48	20.8
							FTGALYPK	30	449.11	2	896.20	895.48	317.9
							ILAYDETTQK	30	1181.57	1	1180.56	1180.60	32
Kvjβ1	45	131	100%	2	3	5	LYWGKAETER	47	655.34	2	1308.66	1308.65	12.7
							RSSLVITTK	45	502.89	2	1003.77	1003.60	171.4
							RSSLVITTK	39	502.95	2	1003.89	1003.60	285
Gabra-6	50	309	100%	1	4	3	ILDNLLEGYDNR	97	717.85	2	1433.68	1433.72	23.2
							ILDNLLEGYDNR	80	718.21	2	1434.41	1433.72	209.3
							ILDNLLEGYDNR	71	718.27	2	1434.52	1433.72	132.6
							ILDNLLEGYDNR	61	718.19	2	1434.36	1433.72	248.5
Gpr158	136	421	100%	5	8	5	EQTVODDLQWYQALVR	82	996.69	2	1991.36	1990.97	195.7
							EQTVODDLQWYQALVR	69	996.85	2	1991.68	1990.97	146.7
							VFSVNNFQR	56	555.98	2	1109.94	1109.56	337.1
							VFSVNNFQR	55	556.05	2	1110.08	1109.56	433.4
							RITEIPETVSR	53	651.32	2	1300.63	1299.71	64.6
							TPVLPGR	40	370.64	2	739.27	738.44	234.5
							LAEEVPVDVASYLYTGDFHQLK	34	832.35	3	2494.04	2493.24	80.1
							TPVLPGR	32	370.31	2	738.60	738.44	221.8
Prkcβ1	78	312	100%	3	7	8	KGTDELYAVK	66	562.65	2	1123.28	1122.59	277.4
							TFCGTPDYIAPEIIAYQPYGK	55	1202.55	2	2403.09	2403.15	21.7
							NIDQSEFEGFSFNSEFLKPEVK	41	1346.03	2	2690.05	2689.29	89.8
							NIDQSEFEGFSFNSEFLKPEVK	40	897.74	3	2690.19	2689.29	38.8
							TFCGTPDYIAPEIIAYQPYGK	39	1202.75	2	2403.48	2403.15	138.8
							TFCGTPDYIAPEIIAYQPYGK	36	1202.43	2	2402.85	2403.15	124.9
							KGTDELYAVK	35	562.31	2	1122.60	1122.59	6.9