

		L.KTY@VDPHTYEDPNQAVL.K L.KTY@VDPHT@YEDPNQAVL.K K.SEQLKPLKT@YVDPHTY@EDPNQAVL.K.F K.TYVDPHTY@EDPNQAVL.K.F	Y589 Y589 Y595 Y595	N	C	12 13 1,2,4,7,8,9,10 1,2,3,4,5,6,7,8,9,10	1 1 8 2 8	26	3.14 2.90 4.21 3.13 3.77	2 2 3 3 2
		L.KTYVDPHTY@EDPNQAVL.K L.KTY@VDPHTY@EDPNQAVL.K F.GLSRVLEDDPEATY@TTSGGKIPIR.W.T L.SRVLEDDPEATY@TTSGGKIPIR.W.T R.VLEDDPEATY@TTSGGK.I R.VLEDDPEATY@TTSGGKIPIR.W	Y595 Y589,Y595 Y773 Y773 Y773	N	C	11,13,15 12,14,16 12,13,14,15,16,18 11,12 2,3,4,6,8,10 1,2,3,4,6,7,8,9	3 3 6 2 6 9	23	3.68 3.20 5.64 5.33 5.24 4.03	2 2 3 3 2 2
Ephrin type-A receptor 3 precursor -- EphA3 (EphA4, EphA5)	P29319	R.VLEDDPEAAY@TTR.G	Y779	N	U	2,3,4	3	3	3.33	2
Ephrin type-A receptor 4 precursor -- EphA4	Q03137	Y.VDPFTY@EDPNQAVREF.A	Y602	N	U	12,15	2	2	3.85	2
Ephrin type-A receptor 5 precursor -- EphA5	Q60629	R.TY@IDPHTY@EDPNQAVHEFAK.E	Y489,Y495	N,N	U,U	2,3,4	3	3,3	3.83	3
Ephrin type-B receptor 2 precursor -- EphB2 (EphB1)	P54763	K.IY@IDPFTY@EDPNEAVR.E Y.IDPFTY@EDPNEAVREF.A	Y604,Y610 Y610	N,N	U,U	3 15,16,18	1 3	1,4	2.32 4.59	2 2
Ephrin type-B receptor 3 precursor -- EphB3 (EphB4)	P54754	K.VY@IDPFTY@EDPNEAVR.E K.VYIDPFTY@EDPNEAVR.E R.FLEDDPSDPTY@TSSLGGKIPIR.W	Y603,Y609 Y609 Y787	N N N	U U U	5 2,4,6,7,8,9,10 4,7	5 7 2	5 12 2	5.28 4.61 3.40	2 2 3
Eph receptor B4 -- EphB4	Q91YM0	K.HGQYLIGHGKTVY@IDPFTY@EDPNEAVR.E K.HGQYLIGHGT*KVYIDPFTY@EDPNEAVR.E Y.LIGHGKTVY@IDPFTY@EDPNEAVREF.A R.FLEENSS@DPTY@TSSLGGKIPIR.W R.FLEENSSDPTY@TSSLGGKIPIR.W	Y590,Y596 Y596 Y590,Y596 Y774 Y774	N* N* N* N	C C U U	2,3,4 3,4 11,12 4 1,3,4	3 2 2 1 3	5 7 4 4	4.81 3.61 5.85 2.86 4.11	3 3 3 3 3
Hepatocyte growth factor receptor precursor -- MET	P16056	F.GLARDMYDKEY@Y.S F.GLARDMYDKEY@Y.S R.DM#YDKEY@Y@SVHNK.T R.DM#YDKEY@YS@VHNK.T R.DM#YDKEY@YSVHNK.T R.DMYDKEY@Y@SVHNK.T R.DMYDKEY@Y@SVHNKTGAK.L R.DMYDKEY@YSVHNK.T R.DMYDKEY@YSVHNKT*GAK.L R.DMYDKEY@YS*VHNK.T R.DMYDKEY@SVHNK.T R.DMYDKEY@SVHNKT*GAK.L	Y1232 Y1233 Y1232,Y1233 Y1232 Y1232 Y1232,Y1233 Y1232,Y1233 Y1232 Y1232 Y1232 Y1233 Y1233	N N	U U	15 12,18 3,8,10 6 8,10 1,3,8,9 9 1,2,3,4,5,6,7,8,9 9 8 3,7 8	1 2 3 1 2 3 2 1 10 1 1 1 1 1 1	26 14	2.96 2.55 3.84 2.83 3.85 3.51 3.31 3.30 4.00 3.34 3.30 3.28 2.71 2.96 2.89	3 2 3 3 3 3 2 3 3 3 2 3 2 3 2 3
Insulin-like growth factor 1 receptor precursor -- IGF1R (InsR)	Q60751	R.DIY@ETDY@Y@RK.G R.DIY@ETDY@YRK.G R.DIYETDY@YR.K R.DIYETDY@YRK.G	Y1163, Y1167,Y1168 Y1163, Y1167 Y1167 Y1168	N N	U U	8 8 2,3,6,8,10 8	1 1 5 1	2 7 2	2.45 2.74 2.27 2.42	2 2 2 2
Proto-oncogene tyrosine-protein kinase -- MER	Q60805	K.KIY@SGDY@YR.Q K.KIYSGDY@YR.Q	Y744,Y748 Y748	N N	U U	3 3	1 1	1 2	2.41 2.52	2 2
Tyrosine-protein kinase receptor UFO precursor -- Axl	Q00993	F.GLSKKIYNGDY@YR K.KIYNGDY@YR.Q K.IYNGDY@YR.Q K.IYNGDY@YR.Q F.GLSKKIYNGDY@YR	Y696 Y696 Y696 Y697 Y697	N* N	C U	11,12 1,2,3,4,5,6,7,8,9,10 1,3,4,5,6,7,8,9,10 4 13	2 11 11 1 1	24 2	3.57 2.94 2.83 2.08 3.21	2 2 2 2 2
Other protein kinases										
CDC2: Cell division control protein 2 homolog - CDK1 (CDK2)	P11440	K.IEKIGEGT@Y@GVVYK.G K.IEKIGEGTY@GVVYK K.IEKIGEGTY@GVVYK.G K.IEKIGEGT*Y@GVVYK.G K.IGEGT@Y@GVVYK.G K.IGEGTY@GVVYK.G K.IGEGTY@GVVYKGR.H K.IGEGT*Y@GVVYK.G K.IGEGT*Y@GVVYKGR.H Y.IKIEKIGEGTY@GVVYK Y.IKIEKIGEGT*Y@GVVYK -.DYIKIEKIGEGTY@GVVYK K.IGEGTYGVVY@K.G	Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y19	N	C	1,3,4,6,8,9,10 11,16 1,2,3,4,5,7,8,9 3,5,6,7,8,9,10 1,2,3,4,5,6,7,10 1,2,3,4,5,6,7,8,9,10 1,2,3,4,5,6,8 1,2,3,4,5,6,7,8,9,10 2,3,4 11,12,13,15,16,18 11 11,12,13,14,15,16,18 9	3 7 2 7 11 3 4 10 38 1 9 20 3 6 1 7 1	132	3.31 4.05 3.21 4.35 4.12 3.96 3.69 3.05 3.45 1.85 3.99 3.34 2.93 3.96 2.76 4.13 2.76	3 2 2 3 2 3 2 2 2 1 2 2 2 2 2 2 2
Cell division protein kinase 2 -- CDK2	P97377	K.VEKIGEGTY@GVVYK.A	Y15	N	U	1,4,6	2 1	3	3.37 3.39	3 2

Serine/threonine-protein kinase PAK 2	Q8CIN4	K.LRTIVSIGDPKKYTRY@EK.I	Y252	N*	U	5	1	1	2.50	3
Serine/threonine-protein kinase -- PFTAIRE-1	Q35495	K.LEKLEGGES@Y@ATVYK.G	Y146	N*	U	4	1	1	3.89	2
Serine/threonine-protein kinase -- PCTAIRE-3	Q04899	K.LDKLGEPTY@ATVFK.G	Y132	N*	U	2	1	1	2.78	3
Serine/threonine-protein kinase -- PRP4	Q61136	C.DFGS@AS@HVADNDITPY@LVSRFY.R F.GSASHVADNDITPY@LVSRFY.R F.GSASHVADNDITPY@LVSRFY.R H.VADNDITPY@LVSRFY.R H.VADNDITPY@LVSRFY.R K.LC*DFGSASHVADNDITPY@LVSR.F K.LCDFGSAS@HVADNDITPY@LVSR.F L.C*DFGSASHVADNDITPY@LVSRFY.R S.HVADNDITPY@LVSRFY.R	Y849 Y849 Y849 Y849 Y849 Y849 Y849 Y849 Y849	N	C	16 13,14 14 11,12,13,15,16,18 11,12,15,16,18 1,2,3,4,5,6,7,8,9,10 1 13,15 16	1 2 1 6 6 16 10 1 2 1	46	3.25 4.38 4.78 4.14 4.78 6.43 5.41 4.60 4.11 2.85	3 2 2 2 2 3 2 3 3 2
RIKEN CDNA C230081A13: hypothetical Protein kinase A anchoring domain containing protein -- SgK269	Q8BX56	K.FNSYNNAGM#PPFPIIHDEPSY@AR.S K.NAIKVPIVINPNAY@DNLAIK.S K.NAIKVPIVINPNAY@DNLAIK.S K.NAIKVPIVINPNAYDNLAIK.S K.VPIVINPNAY@DNLAIK.S	Y613 Y632,Y638 Y632 Y638 Y632	N*	U	10 1,2,3,4 1,2,3,4 3 1,3,4	1 4 3 3 1 3	1	3.40 4.89 5.59 4.64 4.79 5.03	3 3 3 2 3 2
Protein phosphatases										
Protein phosphatase 2 regulatory subunit B56 delta isoform	Q99PC9	R.KSELPOQVY@T*IK.A	Y572	N*	C	4,8,10	4	4	3.10	2
Receptor-type tyrosine-protein phosphatase alpha -- R-PTP-alpha	P18052	K.VVQEYIDAFSDY@ANFK.- Y.IDAFSDY@ANFK.- Y.KVVQEYIDAFSDY@ANFK Y.KVVQEYIDAFSDY@ANFK.-	Y825 Y825 Y825 Y825	N	U	1,2,3,4,5,7,9,10 11 11 11,12,13,15,16,18	4 12 1 2 5 4	28	3.79 6.22 2.65 4.57 5.88 4.55	3 2 2 2 2 3
Tyrosine-protein phosphatase, non-receptor type 11 -- SHP-2	P35235	H.IKIQNTGDY@YDLY.G K.IQNTGDY@YDLYGGEK.F R.EDSARVY@ENVGLMQQR.S R.VY@ENVGLMQQR.S	Y62 Y62 Y584 Y584	N	C	11,16 3,4,6,7,8,10 3 4	2 7 1 1	9	3.20 4.29 3.30 3.02	2 2 3 2
SIGNALING: SMALL G PROTEINS AND REGULATORS										
Glucocorticoid receptor DNA binding factor 1 [fragment] -- p190RhoGAP	Q91YM2	R.NEEENIY@SVPHDSTQK.I W.MPOQDGFDPDSY@AEPMDAVKPRNEENIY.S	Y943 Y925	N	C	1,2,3,4,5,6,7,8,9,10 11	14 14 1	28	3.49 5.15 4.11	3 2 3
Breast cancer anti-estrogen resistance protein 3 -- BCAR3	Q9QZK2	F.IFRDPY@LLDPTLEY.V F.IFRDPY@LLDPTLEYVKF.S Y.LLDPTLEY@VKF.S R.KGENFIFRDPY@LLDPTLEY@VK.F R.KGENFIFRDPY@LLDPTLEYVK.F L.RLSEAY@SRVQY.Q	Y103 Y103 Y111 Y103,Y111 Y103 Y206	Y N*	U	11 11 11 4 2,4,5,7 11,12,13	1 1 1 1 4 3	7	3.51 3.60 3.16 2.80 4.09 3.27	2 2 2 3 3 2
ARF GTPase-activating protein -- GIT1	Q68FF6	R.SQSELDDQHDY@DS@VAS@DEDTDQEPLPSAG ATR.N R.SQSELDDQHDY@DS@VAS*DEDTDQEPLPSAG TR.N F.HSTELEDDAIY@SVHVPAGLYR R.LQPFHS@TELEDDAIY@SVHVPAGLYR.I R.LQPFHSTELEDDAIY@SVHVPAGLYR.I R.LQPFHSTELEDDAIY@SVHVPAGLYR.I	Y392 Y392 Y554 Y554 Y554	Y	U	8,9 8,9 11,12,13,15,16,18 7 1,2,3,4,5,7,9,10 7	2 2 6 1 9 1	4	4.87 5.47 5.28 3.89 6.25 3.60	3 3 3 3 3 3
ARF GTPase-activating protein -- GIT2	Q9JLQ2	K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K	Y541 Y541	N	U	2,4,6 3	3 1	4	4.92 3.17	3 3
Ras GTPase-activating-like protein -- IQGAP1	Q9JKF1	K.LQQTY@SALNSK.A	Y1510	N	C	3	1	1	2.29	2
Ras and Rab interactor 1 -- Rin1	Q921Q7	K.EKPSTDPLY@DTPDTR.G	Y35	N	C	4,7,9	4	4	2.61	2
Rho-GTPase-activating protein 12	Q8C0D4	M.RATT@PPNQGRPDS@PVY@ANLQEL.K M.RATT@PPNQGRPDS@PVY@ANLQEL.K R.AT@TPPNQGRPDS@PVY@ANLQEL.K R.AT@TPPNQGRPDS@PVY@ANLQEL.K R.ATT@PPNQGRPDS@PVY@ANLQEL.K	Y241 Y241 Y241 Y241 Y241	N	C	15,16 13 4 4 2,3,4,6,7,8,9,10	2 1 1 1 9	14	3.39 3.16 3.86 2.70 4.44	3 3 3 3 3
SIGNALING: OTHER										
Abl interactor 1 -- Abi-1	Q8CBW3	K.TLEPVKPTVPNDY@MTSPAR.L	Y212	N	U	4	1	7	2.82	3

		R.NTPY@KTLEPVKPTVPNDY@MTSPAR.L R.NTPYKT@LEPVKPTVPNDY@MTSPAR.L Y.KTLEPVKPTVPNDY@MTSPAR.L.G	Y212 Y212 Y212			4,7 2 12,13	1 2 1 2	4.25 3.70 3.12 4.57	2 3 3 3
Annexin A2	P07356	K.LSLEGDHSTPPSAY@GSVKPYTNFDAER.D K.LSLEGDHSTPPSAY@GSVKPYTNFDAERDALNIET AVK.T C.KLSLEGDHSTPPSAY@GSVKPY.T L.SLEGDHSTPPSAY@GSVKPY.T K.RKY@GKSLYYIQQDTK.G	Y23 Y23 Y23 Y310	N N N N*	C C C U	1,3,4 4 12,13 11,12,13,16 4,10	3 1 2 2 2	13 4.73 3.66 4.45 4.27 2.62	3 3 3 2 3
Ankyrin repeat and SAM domain-containing protein 1 -- ANKS1	P59672	L.AVRPRIQS@SAPQEEEEHPY@ELL.L L.AVRPRIQS@SAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L	Y471 Y471 Y471 Y471 Y471	N*	C	11 16 11,13,15 12 11	1 1 3 1 1	7 3.66 4.43 3.98 3.69 3.16	3 3 3 3 3
Calmodulin	P62204	R.VFDKDGNGY@ISAAELR.H F.RVFDKDGNGY@ISAAELR	Y99 Y99	N	U	2,3,4 11	5 1	6 5.06 3.65	2 2
Caveolin-1	P49817	K.YVDSEGHLY@TVPIR.E	Y14	N	C	1,2,3,4,6,8,9	7	7 3.91	2
Caveolin-2	Q9WVC3	F.MADDAYS@HHS@GVDY@ADPEKY.V F.MADDAYS@HHS*GVDY@ADPEKY.V F.MADDAYSHHS@GVDY@ADPEKY.V F.MADDAYSHHS@GVDY@ADPEKY.V F.MADDAYS*HHS@GVDY@ADPEKY.V Y.SHHS@GVDY@ADPEKY.V	Y27 Y27 Y27 Y27 Y27 Y27	N N N N N	U U U U U	11,12,15 11 11,12,16 11 12 11	3 1 3 1 1 1	10 4.14 3.23 3.62 3.60 4.00 4.16	3 3 3 3 3 3
Proto-oncogene c-Crk	Q64010	L.IGNGEQSHQPQLGGPEPGPY@AQPSVN.T Y.AQPSVNTPLPNLQNGPIY@ARVIQ.K K.RVFNAY@DKTALALEVGLVK.V Q.KRVFNAY@DKTALA	Y221 Y239 Y251 Y251	N N N*	U U C	11,12 11,13,18 3 11	2 3 1 1	2 3 2 2.56	3 3 3 3
Crk-like protein	P47941	Y.VRTLY@DFPGNDAEDLPF.K H.GKHGNRNS@NSY@GIPEPAHAY.A H.GNRNS@NSY@GIPEPAHAY.A H.GNRNSNSY@GIPEPAHAY.A R.NSNSY@GIPEPAHAYAQPTTTPLPTVASTPGAAL NPLPSTQNGPVFAK.A R.NSNSYGIPEPAHAY@AQPTTTPLPTVASTPGAAL NPLPSTQNGPVFAK.A	Y132 Y198 Y198 Y198 Y198 Y207	N* N* N N N	U U U U U	16 11 11,12,13 13 3,4,7 1,2,5,9	1 1 3 1 3 5	1 8 3.40 3.26 5.00 5.30	2 3 2 2 3 3
Docking protein 1 (Dok1)	P97465	R.IPPGPSQDSVY@SDPLGSTPAGAGEGVHSK.K K.KPLYWDLY@GHVQQQLL.T K.LTDSKEDIY@DEPEGLAPAPPR.G K.TKLTDSKEDIY@DEPEGLAPAPPR.G L.KTKLTDSKEDIY@DEPEGLAPAPPRGLY.D L.LKTKLTDSKEDIY@DEPEGLAPAPPRGLY.D R.LKEEGYELPYNPATDDY@AVPPR.S F.SSDTALY@SQVQKSGTSGAW.D K.GFSSDTALY@SQVQK.S	Y314 Y340 Y361 Y361 Y361 Y361 Y408 Y450 Y450	N N N N N N N N	C C C C C C C C	2,4,7 2,3,4 1,2,3,4,5,6,7,8,9,10 1,2,3,4,5,6,7,8,9,10 11,13,15 11,12,13,14,15,16,17,18 1,2,3,4,6,7,8,9,10 12 3,4	4 3 17 7 18 4 8 12 1 2	4 3 54 4.73 5.71 5.13 5.23 4.42 4.91 4.42	3 3 3 2 3 3 3 2 2
Ephrin-B2 precursor (Ephrin-B1)	P52800	R.TADSVFC*PHY@EK.V K.VSGDY@GHPVYIVQEMPPQSPANIYYKV.- K.VSGDYGHPVY@IVQEMPPQSPANIY@YKV.- K.VSGDYGHPVYIVQEM#PPQSPANIY@YKV.- K.VSGDYGHPVYIVQEMPPQSPANIY@YKV.-	Y307 Y314 Y319,Y333 Y333 Y333	N N N N	U U U U	2,3,4,8 2 4 3,4,10 1,2,3,4,7,9	4 1 2 3 9	4 1 2 14 5.09	2 3 3 3 3
Fibroblast growth factor receptor substrate 2 -- FRS2	Q8C180	K.LVY@ENINGLSIPSASGVR.R R.RPALLNY@ENLPSLPPWEAR.K	Y306 Y349	N N	U U	3 2	1 1	1 2 3.94 3.09	2 3
Fish protein -- TKS5	O89032	K.VKYEEPEY@DVPAFGDFDSEPEMNEEPSGDR.G	Y557	N*	U	9	1	1 4.99	3
GRB2-associated binding protein 1 -- Gab1	Q9QYY0	K.HGMNGFFQQQMMY@DC*PPSR.L K.DASSQDC*Y@DIPR.T L.RKDASSQDC*Y@DIPR.T.F N.KLRKDASSQDC*Y@DIPR.T.F R.KDASSQDC*Y@DIPR.T	Y242 Y407 Y407 Y407 Y407	N N N N	U U U U	1,3 1,2,3,4,5,6,8,9 11,13 11 1,2,3	2 10 2 1 2 2	2 17 4.09 2.80 3.66 3.56	3 2 3 3 3 2
Insulin receptor substrate 2 -- IRS-2	P81122	K.SSSNLGADDGY@MPM#TPGAALR.S K.SSSNLGADDGY@MPMTPGAALR.S K.SDDY@MPMSPTSVSAPK.Q	Y649 Y649 Y671	N N N	U U U	3 2,3,8 2	1 3 1	4 5.04 3.12	2 2 2
Insulin receptor substrate-2 (IRS-2) (4PS) homolog [Fragment]	Q3U2I0	R.SYKAPC*SC*SGDDDDQY@VLMSSPVGR.I	Y754	Y	U	1,2,3,4,6,7	6	6 5.28	3
Kin of IRRE-like protein 1 precursor	Q80W68	K.AIY@SSFKDDVDLK.Q K.AIY@SSFKDDVDLKQDLR.C	Y604 Y604	N*	U	3,4 3	2 1	3 4.07 3.54	2 3

		R.EEYEMKDPNTNGY@YNNR.A R.AVLY@ADY@RAPGPTR.F Y.NVRAHEDRPSSRAVLY@ADY.R R.TPY@EAYDPIGK.Y Y.RLGYPOAPPSSLERTPY@EAYDPIGKY.A R.TPYEAY@DPIGK.Y	Y637 Y654,Y657 Y654 Y753 Y753 Y756	N* N N N* N N	C U U C C C	8 3 11 4 11 1,2,3,4,6,7,8	1 2 1 1 1 8	1 2 3 2 2 8	3.65 2.76 2.73 2.57 4.26 3.31	3 3 3 2 3 2
myelin protein zero-like 1 -- PZR	Q3TEW6	K.SPSSAGSHQGPVIV@AQLDHSGGHSHGK.I K.INKSESVVY@ADIR.K K.INKSESVVY@ADIRK.D- K.SESVVY@ADIR.K N.KSESVVY@ADIRK.D- H.SGKINKSESVVY@ADIRK.D-	Y242 Y264 Y264 Y264 Y264 Y264	N N N N N	U U U U U	3 2,3,4 3 2,3 11,12 11	1 1 3 1 3 2 1	1 11 1 2 2 1	2.84 3.20 3.74 3.66 2.39 3.13 4.99	3 3 2 3 2 3 3
Non-catalytic region of tyrosine kinase adaptor protein 1 -- NCK1	Q99M51	K.RKPS@VPDTASPADDSFVDPGERLY@DLNM#PAF.VK.F K.RKPS@VPDTASPADDSFVDPGERLY@DLNMPAF.VK.F K.RKPSVPDTASPADDSFVDPGERLY@DLNMPAF.VK.F	Y105 Y105 Y105	N N	C C	10 9 7,9	1 1 2	4 2	4.25 4.82 4.10	3 3 3
PDZ and LIM domain protein 5	Q8CI51	R.NTEFY@HIPHSDASK.K	Y251	N	U	8	1	1	2.61	3
Phosphatidylinositol 3-kinase regulatory alpha subunit -- p85alpha	P26450	K.SREYDRLY@EEYTR.T R.DOY@LMWLTQK.G K.LNEWLGNENTEDQY@SLVEDDEDLPHHDEK.T	Y467 Y580 Y607	N N N	C U C	3,4,8,9 4 4	4 1 1	4 1 1	3.69 2.14 5.07	3 2 3
Phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 2 -- p85beta	O08908	R.EYDQLY@EEYTR.T	Y458	N	C	7,8	2	2	3.14	2
Protein LAP2	Q80TH2	R.RTEGDY@LSYR.E R.TEGDY@LSYR.E	Y1097 Y1097	N	U	1,2,3,4,5,6,8,9 2,3,6,9	9 4	13	3.28 2.56	2 2
SH2 domain-containing adapter protein B -- Shb	Q6PD21	C.RLDY@C*GGGGGGDPGGGQRAF.T L.RAMC*RLDY@C*GGGGGGDPGGGQRAF.T M.C*RLDY@C*GGGGGGDPGGGQRAF.T R.LDY@C*GGGGGGDPGGGQRAF.T K.C*SAEETGAGQDKVTIADDDY@SDPFDAK.S K.DKVTIADDDY@SDPFDAK.S K.VTIADDDY@SDPFDAK.S L.LNKC*SAEETGAGQDKVTIADDDY@SDPF.D F.DAKSDLKSKAGKGESAGY@MEPYE F.DAKSDLKSKAGKGESAGY@MEPYE K.AGKGESAGY@MEPYEAQR.I K.AGKGESAGY@MEPYEAQR.I K.GESAGY@MEPYEAQR.I K.SKAGKGESAGY@MEPYEAQR.I L.KSKAGKGESAGY@MEPYE K.LPQDDDRPADEY@DQPWEWNR.V L.RLRESKLPQDDDRPADEY@DQPWE R.ESKLPQDDDRPADEY@DQPWEWNR.V	Y113 Y113 Y113 Y113 Y240 Y240 Y240 Y240 Y262 Y262 Y262 Y262 Y262 Y262 Y262 Y330 Y330 Y330	N N N*	U U U	11,12,15 12 11,12,15 5,6,8,9 4,6,9 3,4,6,7,8 3,4,8 11,16,18 11 11 8,10 1,2,3,4,8 2,3,4 3 11 2,3,4 11	3 1 3 4 3 3 4 3 3 1 2 1 5 3 1 1 3 1 5	11 16 15 9	4.74 3.07 5.18 5.16 4.50 4.69 4.96 4.12 3.30 3.28 2.86 4.11 3.89 4.83 3.97 2.85 3.22 5.05 3.70 3.99	3 3 3 2 3 3 3 2 3 3 3 3 2 3 3 2 3 3 3 3
SHC transforming protein 1 -- SHC1	P98083	K.QM#LPPPPC*PGRELFDDPSY@VNIQNLDK.A R.ELFDDPSY@VNIQNLDK.A K.QMLPPPRCPGRELFDDPSY@VNIQNLDK.A R.KQMLPPPRCPGRELFDDPSY@VNIQNLDK.A R.MAGFDGSAWDEEEEEPPDHQY@Y@NDFPGKEP.PLGGVDMR.L R.MAGFDGSAWDEEEEEPPDHQY@Y@NDFPGKEP.PLGGVDMR.L	Y423 Y423 Y423 Y423 Y349,Y350 Y350	N N N	C C C	3 1,2,3,4,5,6,7,8,9,10 1,3,9 1 1 1	1 15 3 1 1 1	20 1 2	4.27 5.46 5.01 4.34 4.64 3.95	3 2 3 3 3 3
SH2-containing inositol 5-phosphatase 2 -- SHIP2	Q9JLL7	K.NSFNNPAY@YVLEGVPHQLLPLEPPSLAR.A	Y987	N	C	1,2,3,4,7	8	8	5.12	3
Tyrosine-protein phosphatase non-receptor type substrate 1 - SHPS1	P97797	Y.ASIETGKVPREDTLTY@ADLDMVHL.S	Y481	N	U	15	1	1	3.82	3
Signal transducer and activator of transcription 3 -- STAT3	P42227	K.YC*RPESQEHPEADPGSAAPY@LK.T	Y705	N	C	1,2,3,4,6,7,8,9	9	9	4.10	3
STAT3 splice isoform Del-701	P42227-3	K.YC*RPESQEHPEADPGSAAPY@LK.T	Y704	N	U	2,3,4,6,8	5	5	3.62	3
Signal transducer and activator of transcription 5B -- STAT5B	P42232	K.AADGY@VKPQIK.Q	Y699	N	U	3	1	1	2.15	2
ADHESION: CELL/ECM										
CRK-associated substrate -- p130cas	Q61140	K.TQQGLY@QAPGNPQFQSPPAK.Q R.VGGYVYEAQTEQDEY@DTPR.H Y.VYEAQTEQDEY@DTPRHLL R.HLLAPGPQDIY@DVPPVR.G	Y132 Y238 Y238 Y253	N N N N	U C U C	4,8 2,3,4,6,7,9 11,12,13,15,16,18 1,2,3,4,5,6,7,8,10	2 5 5 5 3 15	2 18 32	3.71 5.69 5.31 4.66 4.33 3.63	3 3 2 3 2 3

		L.LAPGQDIY@DVPPVRGLLPNQY.G R.GLLPNQYGQEVY@DTPPMAVK.G	Y253 Y271	N*	C	11 1,2,3,4,9	16 1 5	4.73 3.18 4.45	2 2 2	
		K.GPNGRDPLLDVY@DVPPSVEK.G K.GLLSSSHSVY@DVPPSVSK.D K.DVPDGPLLREETY@DVPPAFAPK.P R.RPGGTLY@DVPR.E R.ERVLPEVADGSSVDDGVY@AVPPPAER.E R.VLPPEVADGSSVDDGVY@AVPPPAER.E L.SRQLQKMEDVY@QTL.V	Y291 Y310 Y331 Y391 Y414 Y414 Y556	N*	C	1,2 1,2,3,4 4 8,10 3 1,4,7,9 11	2 7 1 2 1 5 1	2.76 4.30 4.09 4.32 2.43 4.17 4.75 2.82	3 3 3 2 3 2 2	
Enhancer of filamentation 1 -- HEF1	O35177	R.TGHGVYVY@EYPSR.Y K.ANPEERDGVY@DVPLHNPADAK.G	Y165 Y344	N	U	3 4,8	1 2	3.15 4.49	2 3	
Integrin beta-1 precursor	P09055	K.WDTGENPIY@K.S	Y783	N	U	4	1	2.09	2	
Lipoma-preferred partner homolog - LPP	Q8BFW7	H.YMAGPSSGQIY@GPGPRGY.N M.AGPSSGQIY@GPGPRGY.N Y.MAGPSSGQIY@GPGPRGY.N R.GYNNQVPVSGQC*PPPPTC*VGTDY@AYIPSSG HPPESGYGYTSNQGR.Y R.YYEPY@YAAGPSYGG.R.S R.YYEPY@AAGPSYGG.R.S	Y245 Y245 Y245 Y276 Y301 Y302	N	C	11,12,13 11,12,13 11,12,13,15,18 4 2,3,4,6,7,8,9,10 1,2,3,4,6,8,9,10	2 3 3 5 1 1 8 8	14 3.69 4.72 3.88 3.87 4.33 4.26 4.36 4.73	3 2 2 2 3 3 2 2	
Paxillin	Q8VI36	F.LSEEPY@SYPTGNHTY.Q L.SEEPY@SYPTGNHTY.Q S.KRPVFLSEEPY@SYPTGNHTY.Q R.YAHQQPPS@PLPVY@SSSAK.N R.YAHQQPPS@PLPVY@SSSAK.N R.YAHQQPPS@PLPVY@SSSAK.N R.AGEEHVY@SFPNK.Q R.AGEEHVY@SFPNKQK.S	Y31 Y31 Y31 Y88 Y88 Y88 Y118 Y118	N	C	11,15,16,18 11,13 11 2,3,4 1,4,6 9,10 1,2,3,4,5,6,7,8,9,10 1,2,3,4,5,6,7,8,9,10	4 2 1 4 3 2 11 20 18 1	7 2.51 3.41 3.60 3.06 3.27 50 4.08 4.68 4.56 3.39	2 2 3 2 3 3 3 2 3 2	
Pleckstrin homology domain containing family C member 1	Q8CIB5	L.LIMPSSGSIY@SSPGLY.S	Y179	N*	U	11	1	2.86	2	
Syndecan-4 precursor	O35988	K.KAPTNEFY@A.- Y.KKAPTNEFY@A.-	Y197 Y197	N*	C	3 12,13,15	1 3	1.85 2.95	2 2	
Talin 1	P26039	K.TM#QFEPSTMVY@DAC*R.M K.TM#QFEPSTMVY@DAC*R.M M.QFEPSTMVY@DAC*RM.I F.LSDDDPKGIWLEAGKALDY@Y.M K.ALDY@YM#LR.N K.ALDY@YMLR.N W.LEAGKALDY@Y.M R.IGITNHDEY@SLVR.E K.LLGEIAQGNENY@AGIAAR.D	Y26 Y26 Y26 Y70 Y70 Y70 Y70 Y127 Y1116	N*	C	3 1,2,3,6 11,12,15 11,12,15,18 3,10 2,3,8 12,15,16 3 3 2,3,4,6	1 4 3 4 2 3 3 1 1 4	8 4.07 4.88 3.24 4.32 2.70 2.83 3.14 2.52 3.22 5.20	2 2 2 3 2 2 2 2 3 2	
Tensin	Q9DBT6	R.HAAY@GGY@STPEDR.R R.HAAY@GGYSTPEDR.R R.HAAYGGY@STPEDR.R R.HAAYGGY@STPEDRRPT*LSR.Q	Y213,Y216 Y213 Y216 Y216	N	U	10 1,6 2,3,8,9,10 8	1 2 5 1	3.22 3.04 4.14 2.72	2 2 2 3	
Tensin 2	Q8CJ95	H.TRGPLDGSPY@AQVQ.R L.AHTRGPLDGSPY@AQVQ.R R.GPLDGSPY@AQVQ.R.V K.VGEEGHEGC*SY@AVC*SEGR.Y	Y460 Y460 Y460 Y747	N	U	11 11 1,2,3,4,5,6,8 2,3	1 1 9 2	11 2.77 3.56 3.57 3.73	2 2 2 3	
Tensin 3	Q5SSZ5	L.HTQGPVDGSLY@AKVR.K R.KPSAPTPVQAYGQSNY@STQTWVR.Q	Y354 Y584	N	C	12 3,4	1 2	3.65 5.12	3 3	
Vinculin	Q64727	R.ILLRNPNQAAY@EHFETMK.N K.SFLDSGY@R.I	Y691 Y821	N*	C	1,3,4 1,2,3,4,6,7,8,9,10	3 15	3 15	6.55 2.69	3 2
ADHESION: CELL/CELL										
Catenin delta-1 -- p120 catenin	P30999	K.LNGPQDHNHLLY@STIPR.M R.HYEDGYPGSDNY@GSLSR.V R.HYEDGYPGSDNY@GS*LSR.V R.FHPEPYGLEDDQRSMGY@DDLTY@GMMSDYGT AR.R K.SDNINY@STLNER.G	Y96 Y228 Y228 Y291,Y296 Y877	N	C	3,4,5,6,8,9,10 3,4,6,7,8,9,10 2 9 2,5	2 10 7 4 1 1 2	12 12 3.82 4.57 5.22 4.31 3.35 1,1 3.07	2 3 3 2 2 3 2	
Ctnnd1 protein -- p120 catenin, isoform	Q80XQ4	K.SLDNNY@STLNER.G	Y904	Y	U	1,2,3,4,6,8	6	6	3.78	2

Discs large homolog 3	P70175	R.RDNEVDGQDY@HFVWSR.E	Y705	N*	U	2,3,4	3	3	4.34	3
Fath protein [fragment]	Q497H5	K.NIY@SDIPPQVVPVRISYTPSIFSDSR.N	Y952	N*	U	2,3,4	3	3	3.77	3
Partitioning-defective 3 homolog -- PARD3	Q99NH2	R.ISHSLY@SGIEGLDESPTR.N R.RIS@HSLY@SGIEGLDESPTR.N R.RISHS@LY@SGIEGLDESPTR.N R.RISHSLY@SGIEGLDESPTR.N R.ERDY@AEIQDFHR.T R.EGHLMDTLY@AQVK.K R.KNASSISQDSWEQNY@APGEGFQSAK.E	Y719 Y719 Y719 Y719 Y1076 Y1123 Y1238	Y N* N N*	U U U U	3,4 2 4 1 4 3 2,3,4,8	1 2 1 1 1 1 4	6 1 1 1 1 1 4	4.16 5.37 3.50 4.25 3.02 2.77 3.41 4.96	3 2 3 3 3 2 3
Plakophilin-4; Armadillo related protein	Q68FH0	R.TVHMDQFGQQYDIY@ER.M L.RSAVSPDLHITPIY@EGRTY.Y R.NNY@ALNTAATY@AEPYRPVQYR.V R.NNYALNTAATY@AEPYRPVQYR.V Y.ALNTAATY@AEPYR R.SY@EDPYC*DDRVHFPAST@DYSTQYGLK.S R.SY@EDPYC*DDRVHFPASTDYSTQYGLK.S	Y371 Y414 Y469,Y477 Y477 Y477 Y1137 Y1137	N* N Y N N* N*	C C U U U U	4 11 2,3,4 3,5,7,8,9,10 11,15 2 3	1 1 3 6 2 1 1	1 1 3 11 2 2 4	3.34 4.07 4.49 3.50 2.89 4.65 5.23	3 3 3 3 2 3 3
Scavenger receptor class F member 2 precursor	P59222	R.SASSVEGPGALY@AR.V	Y615	N	C	3	1	1	2.21	2
Tight junction protein ZO-1	P39447	Y.LSAPGSEY@SMY.S R.HEEQPAPAY@EVHNR.Y	Y830 Y1164	N* N	C C	11 1,2,3,6,8,10	1 6	1 6	2.30 4.58	2 3
Tight junction protein ZO-2	Q9Z0U1	R.JEIAQKHPDIY@AVPIK.A	Y1095	N	C	3,4,5	3	3	2.99	3
CYTOSKELETON: ACTIN-ASSOCIATED										
Actins and actin-related proteins; Regulators of actin assembly										
Actin, alpha skeletal muscle (Beta-actin) (Gamma-actin)	P68134	K.IWHHTFY@NELR.V M.VMGQKQDSY@VGDEAQSKRGIL.T	Y93 Y55	N N	C C	2,8,9 11	3 1	3 1	2.86 5.32	3 3
Cofilin-1, non-muscle isoform	P18760	K.HELQANC*Y@EEVKDR.C K.LTGIKHELQANC*Y@EEVKDR.C L.TGIKHELQANC*Y@EEVKDR*TLA	Y139 Y139 Y139	N Y N	C C C	1,2,3,4,5,6,7,8 4 11,13	8 1 2	11 3 3	4.82 4.41 3.61	3 3 3
Src substrate cortactin	Q60598	Y.TSEPVY@ETTEAPGHY.Q	Y466	N	C	11,12,13,14,15,16,17,18	1 8	9 3	3.87 3.47	3 2
Vasodilator-stimulated phosphoprotein -- VASP	P70460	F.SRVQIY@HNPTANSF.R R.VQIY@HNPTANSF.R	Y39 Y39	N	C	11 2,3,4	1 1 3	5 3 3	3.52 2.80 3.96	2 3 2
N-WASP: Neural Wiskott-Aldrich syndrome protein	Q91YD9	K.DRETSKVIY@DFIEK.T K.VIY@DFIEK.T	Y253	N	C	1,2,3 1,2,3,4,6,7	3 6	9 3	3.37 3.08	3 2
WD-repeat protein 1; Actin interacting protein 1 -- AIP1	O88342	K.AHDGGIY@AISWSPDSTHLLSASGDK.T	Y237	N	C	9	1	1	5.53	3
Other actin-associated proteins										
Band 4.1-like protein 2	O70318	N.TLRVDGDNII@VRHSNL.M R.VDGDNIY@VR.H	Y606 Y606	N	U	11,12 3,5	2 2	4 3	4.28 2.73	3 2
Calponin-2	Q08093	K.CASQSGMTAY@GT@RR.H	Y184	N*	U	1	1	1	2.64	3
Calponin-3	Q9DAW9	Y.HGEYPPDY@PREY.Q	Y316	Y	C	11	1	1	2.26	2
LIM and SH3 domain protein 1 -- LASP-1	Q61792	H.HIPTSAPVY@QQPQQQM.T	Y173	N	C	11,12	2 1	3 3	3.77 4.28	3 2
Septin-2	P42208	K.QQPTQFINPETPGY@VGFANLPNQVHR.K K.QQPTQFINPETPGY@VGFANLPNQVHR.K	Y17 Y17	N	C	2,3,4,6 3	4 1	5 3	4.35 2.82	3 3
Sickle tail-b (Sickle tail-a)	Q75UV8	R.NVY@YELNDVR.N R.NEGFY@ADPYLYHEGR.M	Y244 Y393	Y Y	U U	1,2,3,4,8 3,6,8,9	5 3 2	5 5 3	3.47 3.56 3.29	2 3 2
CYTOSKELETON: MICROTUBULE-ASSOCIATED										
none										
CYTOSKELETON: OTHER										
Vimentin	P20152	R.FANY@IDKVR.F	Y116	N*	U	3,4,5	3	3	2.74	2

		R.SLY@SSSPGGAYVTR.S	Y52	N	C	2,3	2	2	3.68	2
TRAFFICKING/TRANSPORT										
Vesicle transport										
Double C2-like domain containing protein beta	P70169	K.TY@LKPVDVKKSK.H K.TY@LKPVDVKKS*K.H	Y309 Y309	Y	U	4 6	1 1	2	2.33 2.99	2 2
Intersectin 2	Q9Z0R6	R.GEPEALY@AAVTK.K	Y 921	N	C	1,2,3,4,5,6,7,8,9,10	15	15	3.76	2
Low-density lipoprotein receptor precursor	P35951	F.DNPVY@QKTTEDELHIC*RSQDGY.T	Y832	N*	U	11	1	1	3.74	3
Nucleoporin-like protein RIP	Q8K2K6	K.AGLQTADKY@AALANLDNIFSAGQGGDQSGGFG TTGK.A	Y327	N*	U	4	1	1	6.08	3
Transferrin receptor protein 1 - TFR	Q62351	F.SNLFGGEPLSY@TRF.S R.SAFSNLFGGEPLSY@TR.F	Y20 Y20	N	U	12,15,16,18 4,6,7	4 3	7	3.99 4.36	2 2
Nucleocytoplasmic transport										
None										
Other transport										
Gap junction alpha-1 protein -- Connexin 43	P23242	K.QASEQNWANY@SAEQNR.M	Y312	N*	U	2,3	1 1	2	2.94 3.68	2 3
Lysosomal-associated transmembrane protein 4A	Q60961	K.IPEKEPPPPY@LPA.-	Y230	N*	U	3,4	3	3	2.56	2
Sodium bicarbonate cotransporter 2B homolog [fragment]	Q8BTY2	K.DKSDSKEDGRES@PSY@DTPSQR.V K.DKDS*DKEDGRES@DTPSQR.V	Y92 Y92	Y	U	8 8	1 1	2	3.62 2.50	3 3
Solute carrier family 38, member 2	Q8CFE6	K.SHY@ADVDPENQNFLLESNLGK.K K.SHY@ADVDPENQNFLLESNLGK.K L.KSHY@ADVDPENQNFL	Y41 Y41 Y41	N*	U	2,4 2,3,4 11,12	2 3 2	7	4.98 5.04 4.14	3 3 2
METABOLIC AND BIOSYNTHETIC ENZYMES										
Glycolytic enzymes										
Alpha enolase (beta-enolase) (gamma enolase)	P17182	R.GNPTVEVDLY@TAK.G R.AAVPSGASTGIY@EALELR.D	Y24 Y43	N N	C C	9 1,2,3,4,9	1 6	1 6	3.83 5.24	2 2
Glyceraldehyde-3-phosphate dehydrogenase -- GAPDH	P16858	K.LISWYDNEY@GYSNR.V	Y315	N	C	1,2,3,4,6,9	8	8	4.40	2
Phosphoglycerate mutase 1	Q9DBJ1	R.FSGWY@DADLSPAGHEEAKR.G	Y25	N	C	4,9	2	2	3.93	3
Pyruvate kinase, isozyme M2	P52480	R.EAEAAIY@HLQLFEELRR.L	Y389	N	C	9	1	1	2.56	3
Other metabolic/biosynthetic enzymes										
Bifunctional purine biosynthesis protein PURH	Q9CJW9	R.VC*VMY@DLYPTLPLAVAYAR.A	Y290	N*	C	9	1	1	4.21	3
Serine hydroxymethyltransferase, cytosolic	P50431	K.MLSQPLKSDAEVY@SIKK.E	Y28	N*	C	9	1	1	4.18	3
TK: Transketolase	P40142	K.NMAEQIIQEIY@SQVQSK.K	Y275	N	C	5	1	1	3.39	3
RNA SYNTHESIS AND PROCESSING										
Transcription machinery and regulation										
Polymerase I and transcript release factor	O54724	F.KVMIIY@QDEVKLPKAL.S K.VMIY@QDEVKLPKAL.L F.TPDHVY@ARSKTAVY.K K.SFTPDHVY@AR.S R.KSFTPDHVY@AR.S	Y158 Y158 Y310 Y310 Y310	N* N	C C	12,13 4 11,12 3,4,8 3,5	2 1 2 3 2	3 7	5.14 3.05 2.68 3.00 2.99	3 2 3 2 3
DEAD(DEAH)-box helicases										
ATP-dependent RNA helicase DDX3X	Q62167	R.GRGDY@DGIGGR.G R.GRGDY@DGIGGRGDR.S	Y103 Y103	N	C	3 1,2	1 2	3	3.08 3.00	2 3
hnRNPs and snRNPs										
none										
Splicing factors										

none										
Other RNA binding and processing										
Poly(rC)-binding protein 2	Q61990	Y.TIQGQY@AIPQPDCLKLHQLAM.Q	Y232	Y	C	11	1	1	2.85	3
Putative RNA-binding protein 3	O89086	R.YDSRPGGYGY@GYGR.S	Y124	N*	C	2,4,8	3	4	4.19	3
		Y.DSRPGGYGY@GY.G	Y124			11	1		1.98	2
		R.YDSRPGGYGY@GR.S	Y126	N	C	10	1	1	2.63	3
		R.YSGGNYRDNY@DN.-	Y151	N	U	5	1	1	2.54	2
RNA-binding protein 14	Q8C2Q3	R.LPDAHSDY@AR.Y	Y645	N*	U	7	1	1	2.00	2
PROTEIN SYNTHESIS AND PROCESSING										
tRNA synthetases										
None										
Translation machinery										
40S ribosomal protein S10	P63325	R.IAIY@ELLFK.E	Y12	N	C	7,9	2	2	2.96	2
60S acidic ribosomal protein P0	P14869	K.IQLLDDY@PK.C	Y24	N	U	2,3,4,7,10	5	5	3.41	2
67 kDa polymerase-associated factor PAF67; Eukaryotic translation initiation factor 3 subunit 6-interacting protein -- Eif3s6ip	Q91YE4	K.GDPQVYEELFSY@AC*PK.F	Y415	N*	C	9	1	1	4.00	2
Eukaryotic initiation factor 4A-I	P60843	R.GFKDQIY@DIFQK.L	Y197	N*	C	9	1	1	3.51	2
Elongation factor 1-alpha 1 -- eEF1A-1 (eEF1A-2)	P10126	K.STTTGHLIY@K.C	Y29	N	C	1,2,3,4,5,6,7,8,9,10	11	11	3.08	2
		R.EHALLAY@TLGVK.Q	Y141	N	C	3,4,8,9	4	4	3.34	2
Laminin receptor 1 (ribosomal protein SA)	Q8BNL2	R.ADHQLTEASY@VNLPTIALC*NTDSPLR.Y	Y139	N	C	1,2,4	3	3	5.52	3
G1 to phase transition 2 -- GSPT2	Q9CY91	K.Y@LIVLINK.M	Y347	Y	C	5	1	1	2.08	2
Post-translational modifiers										
Probable palmitoyltransferase ZDHHC5	Q8VDZ4	R.EPS@PVRY@DNLSR.H	Y533	Y	U	6	1	2	2.55	3
		R.LLPTGPPHREPS@PVRY@DNLSR.H	Y533			3	1		3.00	3
Probable palmitoyltransferase ZDHHC8	Q5Y5T5	F.SPVLGPRPREPS*PVRY@DNLS	Y538	Y	U	13	1	3	2.51	3
		R.PREPS*PVRY@DNLSR.T	Y538			5,8	2		3.18	3
		L.RSQDLSLFGDSGVY@DTPSSY.S	Y576	N*	C	12,13,15,16,18	5	5	5.17	2
Chaperones and associated proteins										
BAG-family molecular chaperone regulator-3	Q9JLV1	K.THYPAAQQGEY@QPQQPVYHK.I	Y246	N	C	4	1	1	2.59	3
Heat shock 70 kDa protein 4	Q61316	K.LKKEDIY@AVEIVGGATR.I	Y336	N	C	9	1	1	2.71	3
Heat shock protein HSP 90-beta	P11499	K.SIY@YITGESK.E	Y483	N	C	3,4	2	2	2.62	2
PROTEIN DEGRADATION										
Ubiquitin conjugation regulators										
E3 ubiquitin protein ligase CBL	P22682	K.IKPSSSANAIY@SLAARPLMPK.L	Y672	N	C	2,5,7,9	4	4	3.55	3
E3 ubiquitin-protein ligase CBL-B	Q3TTA7	R.ASQDY@DQLPSSSDGSOAPARPPKPR.P	Y889	N	U	3,4	2	2	3.97	3
Probable E3 ubiquitin-protein ligase MGRN1	Q9D074	L.RAVSPAIPSAPLY@EEITY.S	Y389	N	U	12	1	1	4.07	2
Proteasome components										
Proteasome subunit alpha type 2 -- PSMA2	P49722	K.HIGLVY@SGMGPDYR.V	Y75	N*	C	9	1	1	4.72	2
Other proteases and endopeptidases										
ADAM 9 precursor	Q61072	K.ISSQGNLIPARPAPPLY@SSLT.- N.LIPARPAPPLY@SSLT.-	Y841	N*	U	3	1	2	3.11	2
			Y841			11	1		3.06	2
Prolyl endopeptidase	Q9QUR6	R.MTELY@DYPK.Y	Y71	N*	C	3	1	1	2.31	2

NUCLEAR PROTEINS										
Histone H2B type 1-B	Q64475	R.KESYSVY@VYK.V	Y41	N*	U	8	1	1	3.14	2
MISCELLANEOUS										
Microfibril-associated glycoprotein 3 precursor	Q922T2	R.IKERPALDAQSGIY@VINPELGR.S	Y277	N*	U	3	1	1	3.28	3
Psychosine receptor	Q61038	R.Y@LAVVYPLK.F	Y115	N*	U	2,6	2	2	2.24	2
FUNCTION UNKNOWN OR UNCERTAIN										
Named proteins of unknown/uncertain function										
Carnitine deficiency-associated protein CDV3A (CDV3B)	Q920I4	R.KTPQGPEIY@SDTQFPLQSTAK.H	Y213	N	C	3,4,5,7,8	6	6	5.88	3
Brain-specific angiogenesis inhibitor 1-associated protein 2-like protein 1	Q9DBJ3	K.MIGKDY@DTLSK.Y M.IGKDY@DTLSKY.S	Y274 Y274	N*	U	2,3 11	2 1	3	3.31 3.13	2 2
Suppression of tumorigenicity 5	Q924W7	K.STLEENAYEDIVGGLPKENPY@EDVDLKN	Y498	N*	C	3	1	1	3.90	3
Pituitary tumor-transforming gene 1 protein-interacting protein precursor	Q8R143	F.KEQNPY@EKF.- K.EQNPY@EKF.-	Y171 Y171	N*	U	11,13,14 2,3	3 2	5	2.88 2.18	2 2
WW domain binding protein 4	Q3TWW5	K.FGDY@C*K.C K.S*QPKKFGDY@C*K.C	Y15 Y15	Y	U	4,5,10 10	3 1	4	2.90 3.05	2 3
Unnamed proteins of unknown/uncertain function										
hypothetical protein -- Cdc105	Q9D4K7	K.FNQEM#Y@VTRGIK.G	Y372	Y	U	5,7,8	2 1	3	2.66 2.61	2 3
hypothetical HAT dimerisation/BED finger/Bipartite nuclear localization signal/Zinc finger BED-type profile containing protein	Q3UMD3	W.HFFHVDPQY@TW.R	Y145	Y	U	12,15	2	2	3.42	2
hypothetical Intradiol ring-cleavage dioxygenase/WD40-like containing protein	Q3UHA3	R.YNEMTY@IFDLLHQK.H	Y2161	N	U	10	1	1	2.51	2
MKIAA1686 protein [fragment]	Q6ZPK1	K.ERPISMINEASNY@NMASDY@AVHPMSPVGR.T	Y65,Y71	Y,Y	U,U	2,3	2	2,2	3.77	3
PREDICTED: similar to Oligophrenin 1	UPI00005125B7	K.LWLEAMDGKEPIY@TLP AISK.K R.KLWLEAM#DGKEPIY@TLP AISK.K R.KLWLEAMDGKEPIY@TLP AISK.K	Y371 Y371 Y371	Y	C	2,3 4 2,4,5	2 1 3	6	4.05 4.81 4.28	3 3 3
PREDICTED: similar to zinc finger CCCH type containing 11A isoform 1	UPI00001C484B	R.IPFS@KTY@SKTEK.V	Y399	Y	U	1,2	2	2	4.02	2
Protein KIAA1914	Q5DTU0	K.VAQQLSLVGC*DVLDPDPSDHLI@SFR.I	Y413	Y	U	1,3	2	2	3.96	3
Similar to RIKEN cDNA 4930527D15 gene [fragment]	Q922B5	K.EKLLLC*HGPS@LSPALSGVRY@NAEK.K	Y39	Y	C	6	1	1	3.23	3

END

Table S1. Phosphotyrosine sites from the nontransformed mouse embryo fibroblast population

Protein Name(s) ^a	UniProt # ^a	Peptide ^b	pY site(s) ^b	MH ^h	dM ^h	dCn 2nd ranked peptide ⁱ
SIGNALING: PROTEIN KINASES AND PHOSPHATASES						
Tyrosine kinases (nonreceptor)						
Proto-oncogene tyrosine-protein kinase -- Src (Yes, Fyn, Hck)	Q80XU2	R.LIEDNEY@TAR.Q F.LEDYFTSTEPQY@QPGENL.- Y.FTSTEPQY@QPGENL.-	Y418 Y529 Y529	1304.00 2211.47 1692.24	0.41 0.52 1.50	0.0714 R.LIEDNEY@TAR.Q none none
Proto-oncogene tyrosine-protein kinase -- Fyn (Yes)	P39688	R.KLDNGGYY@ITTR.A F.LEDYFTATEPQY@QPGENL.- F.TATEPQY@QPGENL.- Y.FTATEPQY@QPGENL.-	Y213 Y527 Y527 Y527	1481.13 2196.52 1528.09 1676.10	0.40 1.56 0.42 1.36	0.0107 R.KLDNGGYY@ITTR.A none none none
Fyn-related kinase -- Frk	Q922K9	F.C*PPEAPRSQEPERSHGQY@F.V R.SQEPERSHGQY@FVALFDYQAR.T K.LEDYFETDC*SY@SDTNNFIN.- W.KLEDYFETDC*SY@SDTNNFIN.- W.KLEDYFETDCS@Y@SDTNNFIN.-	Y53 Y53 Y504 Y504 Y504	2352.86 2608.70 2426.95 2555.44 2557.37 2578.11	0.86 0.50 0.04 0.43 2.35 0.10	0.1624 F.C*PPEAPRSQEPERS@HGQYF.V 0.1015 R.SQEPERS@HGQYFVALFDYQAR.T 0.0522 K.LEDYFETDC*S@SDTNNFIN.- 0.0306 W.KLEDYFETDC*S@SDTNNFIN.- 0.0340 W.KLEDYFETDC*S@SDTNNFIN.- 0.0670 W.KLEDYFETDCS@YS@DTNNFIN.-
Fer	P70451	K.VQENDGKEPPVNY@EEDAR.S F.GMSRQEDGGVY@SSGL.K	Y402 Y715	2366.97 1710.37	1.90 0.65	none 0.1358 F.GMSRQEDGGVY@SSGL.K
Proto-oncogene tyrosine-protein kinase ABL1	P00520	M.TGDTY@TAHAGAKFPIKW.T R.LMTGDTY@TAHAGAK.F	Y393 Y393	1944.63 1517.51	0.69 0.83	0.0372 M.TGDTY@AHAGAKFPIKW.T 0.1036 R.LMTGDTY@TAHAGAK.F
Activated CDC42 kinase 1 -- ACK	O54967	M.RALPQNDHY@VMQEH.R W.DARLPPPPAY@DDVAQEDDFE F.ASDPKY@ATPQVIQAPGRAGPC*.I K.VSSTHY@YLLPERPPYLER.Y R.KVSSTHY@YLLPERPPYLER.Y R.KVSS@THYY@LLPERPPYLER.Y	Y284 Y650 Y842 Y874 Y874 Y875	1933.78 1933.29 2425.38 2362.09 2301.01 2429.74 2509.73	0.94 0.45 2.34 0.97 0.87 1.50 1.49	none none 0.0254 F.AS@DPKYATPQVIQAPGRAGPC*.I 0.0723 K.VSSTHY@LLPERPPYLER.Y 0.0733 R.KVSST@HYLLPERPPYLER.Y 0.0046 R.KVSSTHY@Y@LLPERPPYLER.Y
Activated CDC42 kinase 1 -- ACK, isoforms 2 and 3	O54967-2	H.LGRVKKPTY@DPVSEDPDPLSSDF.K K.KPTY@DPVSEDPDPLSSDFK.R.L L.GRVKKPTY@DPVSEDPDPLSSDF.K R.VKKPTY@DPVSEDPDPLSSDFK.R R.VKKPTY@DPVSEDPDPLSSDFK.R.L	Y518 Y518 Y518 Y518 Y518	2642.93 2374.59 2529.88 2446.27 2601.34	0.66 1.49 0.69 2.11 1.08	0.0150 H.LGRVKKPT@YDPVSEDPDPLSSDF.K 0.0228 K.KPT@YDPVSEDPDPLSSDFK.R.L 0.0319 L.GRVKKPT@YDPVSEDPDPLSSDF.K 0.0007 R.VKKPT@YDPVSEDPDPLSSDFK.R 0.0025 R.VKKPT@YDPVSEDPDPLSSDFK.R.L
Focal adhesion kinase, isoform 3 -- FAK	P34152-3	M.RTHAVSVSETDDY@AEIIDEEDTY.T R.THAVSVSETDDY@AEIIDEEDTYTMPSTR.D R.Y@MEDSTY@YK.A R.Y@MEDSTY@YKASK.G R.Y@MEDSTY@Y@KASK.G F.GLSRYM#EDSTY@Y.K F.GLSRYM#EDSTY@Y.K L.GDFGLSRYM#EDSTY@Y.K L.GDFGLSRYM#EDSTY@Y.K R.YM#EDST@YY@KASK.G R.YM#EDSTY@Y@K.A R.YM#EDSTY@Y@KASK.G R.YM#EDSTY@YK.A R.YM#EDSTY@YKASK.G R.YM#EDSTY@Y@K.A R.YMEDSTY@Y@K.A R.YMEDSTY@Y@KASK.G R.YMEDSTY@YK.A R.YMEDSTY@YKASK.G R.YMEDSTY@Y@K.A Y.M#EDSTY@Y@KASKGKLIPIK.W Y.MEDSTY@Y@KASKGKLIPIK.W	Y397 Y397 Y570,Y576 Y570,Y576 Y570,Y576,Y577 Y576 Y576 Y576 Y576 Y576 Y577 Y576,Y577 Y576,Y577 Y576 Y576 Y577 Y576,Y577 Y576 Y576 Y577 Y576,Y577 Y576,Y577 Y576 Y576 Y577 Y576,Y577 Y576 Y576 Y577 Y576,Y577 Y576	2738.87 2739.94 3256.66 1359.75 1645.52 1725.34 1581.12 1565.84 1900.27 1883.90 1661.93 1375.66 1662.03 1296.10 1581.58 1296.09 1359.28 1646.24 1279.92 1280.38 1566.08 1279.12 2322.87 2305.61	0.70 1.76 1.27 0.26 -0.14 -0.32 0.48 1.20 0.52 0.14 0.26 0.17 0.37 0.61 -0.08 0.60 -0.21 0.58 0.43 0.89 0.42 -0.37 1.77 0.51	none none 0.0605 R.THAVSVSET@DDYAEIIDEEDTYTMPSTR.D 0.1144 R.Y@MEDST@YK.A 0.0743 R.Y@MEDST@YKASK.G 0.0530 R.Y@MEDST@Y@KASK.G 0.1391 F.GLSRYM#EDST@YK.K 0.1660 F.GLSRYM#EDST@YK.K 0.0740 L.GDFGLSRYM#EDST@YK.K 0.1288 L.GDFGLSRYM#EDST@YK.K 0.0032 R.YM#EDSTY@Y@KASK.G 0.0687 R.YM#EDST@Y@K.A 0.0785 R.YM#EDST@Y@KASK.G 0.0660 R.YM#EDSTY@Y@K.A 0.0059 R.YM#EDST@YKASK.G 0.0690 R.YM#EDSTY@YK.A 0.0628 R.YMEDST@Y@K.A 0.1020 R.YMEDST@Y@KASK.G 0.0734 R.YMEDSTY@Y@K.A 0.0088 R.YMEDSTY@Y@K.A 0.0447 R.YMEDST@YKASK.G 0.0949 R.YMEDSTY@YK.A 0.0124 Y.M#EDST@Y@KASKGKLIPIK.W 0.0572 Y.MEDST@Y@KASKGKLIPIK.W
Tyrosine-protein kinase JAK1	P52332	K.AIETDKEY@Y@TVKDDR.D	Y1033,Y1034	2006.36	0.47	0.1350 K.AIETDKEY@Y@TVKDDR.D
Tyrosine kinases (receptor)						
Discoidin domain receptor 2 precursor -- DDR2	Q62371	R.IFPLRPDY@QEPSR.L Y.DRIFPLRPDY@QEPSRL.I R.NLY@SGDY@YR.I	Y481 Y481 Y735,Y739	1698.03 2082.93 1310.97	0.19 0.88 0.44	none 0.1556 Y.DRIFPLRPDYQEPS@RL.I 0.1549 R.NLY@SGDY@YR.I
Ephrin type-A receptor 2 precursor -- EphA2	Q03145	K.SEQLKPLKTY@VDPHTYEDPNQAVLK.F	Y589	2995.38	1.88	0.0360 K.SEQLKPLKT@YVDPHTYEDPNQAVLK.F

		L.KTY@VDPHTYEDPNQAVL.K L.KTY@VDPHT@YEDPNQAVL.K K.SEQLKPLKT@YVDPHTY@EDPNQAVL.K.F K.TYVDPHTY@EDPNQAVL.K.F	Y589 Y589 Y595 Y595	2070.37 2150.60 3073.16 2071.96	0.40 0.64 -0.34 2.00	0.0405 L.KT@YVDPHTYEDPNQAVL.K 0.0001 L.KTY@VDPHTY@EDPNQAVL.K 0.0182 K.SEQLKPLKT@YVDPHT@YEDPNQAVL.K.F 0.0577 K.TYVDPHT@YEDPNQAVL.K.F
		L.KTYVDPHTY@EDPNQAVL.K L.KTY@VDPHTY@EDPNQAVL.K F.GLSRVLEDDPEATY@TSSGGKPIRW.T L.SRVLEDDPEATY@TSSGGKPIRW.T R.VLEDDPEATY@TSSGGK.I R.VLEDDPEATY@TSSGGKPIRW.W	Y595 Y589,Y595 Y773 Y773 Y773	2070.45 2150.41 2842.81 2672.86 1763.39 2243.67	0.49 0.45 1.39 1.55 0.61 1.57	0.0406 K.TYVDPHT@YEDPNQAVL.K.F 0.0514 L.KTYVDPHT@YEDPNQAVL.K 0.0115 L.KTY@VDPHT@YEDPNQAVL.K 0.1130 F.GLSRVLEDDPEAT@YTSSGGKPIRW.T 0.0979 L.SRVLEDDPEAT@YTSSGGKPIRW.T 0.0487 R.VLEDDPEATY@TSSGGK.I 0.0574 R.VLEDDPEAT@YTSSGGKPIRW.W
Ephrin type-A receptor 3 precursor -- EphA3 (EphA4, EphA5)	P29319	R.VLEDDPEAAY@TTR.G	Y779	1560.19	0.49	0.1136 R.VLEDDPEAAY@TR.G
Ephrin type-A receptor 4 precursor -- EphA4	Q03137	Y.VDPFTY@EDPNQAVREF.A	Y602	2007.98	1.09	0.0647 Y.VDPFT@YEDPNQAVREF.A
Ephrin type-A receptor 5 precursor -- EphA5	Q60629	R.TY@IDPHTY@EDPNQAVHEFAK.E	Y489,Y495	2537.07	1.98	0.0004 R.T@YIDPHTY@EDPNQAVHEFAK.E
Ephrin type-B receptor 2 precursor -- EphB2 (EphB1)	P54763	K.IY@IDPFTY@EDPNEAVR.E Y.IDPFTY@EDPNEAVREF.A	Y604,Y610 Y610	2102.82 2023.15	0.90 1.26	0.0742 K.IY@IDPFT@YEDPNEAVR.E 0.0643 Y.IDPFT@YEDPNEAVREF.A
Ephrin type-B receptor 3 precursor -- EphB3 (EphB4)	P54754	K.VY@IDPFTY@EDPNEAVR.E K.VYIDPFTY@EDPNEAVR.E R.FLEDDPSDPTY@TSSGGKPIRW.W	Y603,Y609 Y609 Y787	2088.96 2008.83 2490.03	1.05 0.91 1.83	0.0718 K.VY@IDPFT@YEDPNEAVR.E 0.0715 K.VYIDPFT@YEDPNEAVR.E 0.0162 R.FLEDDPSDPT@YTSSGGKPIRW.W
Eph receptor B4 -- EphB4	Q91YM0	K.HGQYLIGHGTVKY@IDPFTY@EDPNEAVR.E K.HGQYLIGHGT*KVYIDPFTY@EDPNEAVR.E Y.LIGHGTVKY@IDPFTY@EDPNEAVREF.A R.FLEENSS@DPTY@TSSGGKPIRW.W R.FLEENSSDPTY@TSSGGKPIRW.W	Y590,Y596 Y596 Y590,Y596 Y774 Y774	3281.88 3182.37 3072.78 2572.64 2492.06	2.36 0.84 2.35 1.43 0.85	0.0441 K.HGQYLIGHGTVKY@IDPFT@YEDPNEAVR.E 0.0078 K.HGQYLIGHGT*KVYIDPFT@YEDPNEAVR.E 0.0265 Y.LIGHGT@KVYIDPFTY@EDPNEAVREF.A 0.0545 R.FLEENSS@DPTY@TSSGGKPIRW.W 0.0189 R.FLEENSSDPT@YTSSGGKPIRW.W
Hepatocyte growth factor receptor precursor -- MET	P16056	F.GLARDMYDKEY@Y.S F.GLARDMYDKEY@Y.S R.DM#YDKEY@Y@SVHNK.T R.DM#YDKEY@YS@VHNK.T R.DM#YDKEY@YSVHNK.T R.DMYDKEY@Y@SVHNK.T R.DMYDKEY@Y@SVHNKTGAK.L R.DMYDKEY@YSVHNK.T R.DMYDKEY@YSVHNKT*GAK.L R.DMYDKEY@YS^VHNK.T R.DMYDKEY@SVHNK.T R.DMYDKEY@SVHNKT*GAK.L	Y1232 Y1233 Y1232,Y1233 Y1232 Y1232 Y1232,Y1233 Y1232,Y1233 Y1232 Y1232 Y1233 Y1233	1603.92 1604.02 1869.85 1869.06 1789.90 1852.08 1851.99 2209.76 1772.51 1772.16 2111.19 1753.71 1772.24 1772.72 2111.23	0.24 0.34 2.11 1.32 2.16 0.34 0.25 0.82 0.77 0.42 0.24 -0.03 0.50 0.98 0.29	0.1510 F.GLARDMYDKEY@Y.S 0.0089 F.GLARDMYDKEY@Y.S 0.1228 R.DM#YDKEY@YS@VHNK.T 0.0804 R.DM#YDKEY@Y@SVHNK.T 0.1726 R.DM#YDKEY@YSVHNK.T 0.1298 R.DMYDKEY@YS@VHNK.T 0.0430 R.DMYDKEY@YS@VHNK.T 0.1138 R.DMYDKEY@YS@VHNKTGAK.L 0.1319 R.DMYDKEY@SVHNK.T 0.1225 R.DMYDKEY@SVHNK.T 0.0297 R.DMYDKEY@SVHNKT*GAK.L 0.0180 R.DMYDKEY@YSVHNK.T 0.0029 R.DMYDKEY@YSVHNK.T 0.0008 R.DMYDKEY@YSVHNKT*GAK.L
Insulin-like growth factor 1 receptor precursor -- IGF1R (InsR)	Q60751	R.DIY@ETDY@Y@RK.G R.DIY@ETDY@YRK.G R.DIYETDY@YR.K R.DIYETDY@YRK.G	Y1163, Y1167,Y1168 Y1163, Y1167 Y1167 Y1168	1605.90 1525.89 1318.97 1445.90	0.27 0.26 1.43 0.27	none 0.0862 R.DIY@ETDYY@RK.G 0.1814 R.DIYET@DYR.K 0.0426 R.DIYETDY@YRK.G
Proto-oncogene tyrosine-protein kinase -- MER	Q60805	K.KIY@SGDY@YR.Q K.KIYSGDY@YR.Q	Y744,Y748 Y748	1324.91 1245.94	0.34 1.37	0.1269 K.KIY@SGDYY@R.Q 0.0651 K.KIYSGDYY@R.Q
Tyrosine-protein kinase receptor UFO precursor -- Axl	Q00993	F.GLSKKIYNGDY@YR K.KIYNGDY@YR.Q K.IYNGDY@YR.Q K.IYNGDYY@R.Q F.GLSKKIYNGDYY@R	Y696 Y696 Y696 Y697 Y697	1500.39 1272.10 1144.07 1144.49 1501.45	-0.32 0.52 0.59 1.01 0.74	0.0505 F.GLSKKIYNGDYY@R 0.1473 K.KIYNGDYY@R.Q 0.0634 K.IYNGDYY@R.Q 0.0051 K.IYNGDY@YR.Q 0.0489 F.GLSKKIYNGDY@YR
Other protein kinases						
CDC2: Cell division control protein 2 homolog - CDK1 (CDK2)	P11440	K.IEKIGEGT@Y@GVVYK.G K.IEKIGEGTY@GVVYK K.IEKIGEGTY@GVVYK.G K.IEKIGEGT*Y@GVVYK.G K.IGEGT@Y@GVVYK.G K.IGEGTY@GVVYK.G K.IGEGTY@GVVYKGR.H K.IGEGT*Y@GVVYK.G K.IGEGT*Y@GVVYKGR.H Y.IKIEKIGEGTY@GVVYK Y.IKIEKIGEGT*Y@GVVYK -.DYIKIEKIGEGTY@GVVYK K.IGEGTYGVVY@K.G	Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y19	1717.27 1715.77 1508.18 1636.64 1635.95 1619.00 1618.12 1346.16 1267.13 1265.57 1479.08 1248.01 1462.31 1749.38 1730.66 2027.54 1266.15	1.43 -0.07 0.44 0.80 0.11 1.16 0.28 0.54 1.51 -0.05 0.34 0.39 1.57 0.46 0.26 0.53 0.53	none none 0.0734 K.IEKIGEGT@YGVVYK 0.0541 K.IEKIGEGT@YGVVYK.G 0.0489 K.IEKIGEGT@YGVVYK.G none none 0.0888 K.IGEGT@YGVVYK.G 0.1021 K.IGEGT@YGVVYK.G 0.0572 K.IGEGT@YGVVYKGR.H none none 0.0942 Y.IKIEKIGEGT@YGVVYK none 0.0803 -.DYIKIEKIGEGT@YGVVYK 0.1207 K.IGEGTY@YGVVYK.G
Cell division protein kinase 2 -- CDK2	P97377	K.VEKIGEGTY@GVVYK.A	Y15	1622.96 1622.35	1.14 0.53	0.0922 K.VEKIGEGT@YGVVYK.A 0.0411 K.VEKIGEGT@YGVVYK.A

Dual-specificity tyrosine-phosphorylation regulated kinase 1A -- DYRK1A (DYRK1B)	Q61214	K.VYNDGYDDDN@DYIVK.N R.KVYNDGYDDDN@DYIVK.N R.KVYNDGYDDDN@DYIVKNGEK.W Y.NDGYDDDN@DYIVKNGEK.W.M R.IYQY@IQSR.F Y.QY@IQSRFY.R	Y145 Y145 Y145 Y145 Y321 Y321	2052.45 2180.67 2180.63 2609.03 2404.62 2403.40 1151.37 1186.05	1.62 1.75 1.71 1.90 1.64 0.42 0.81 1.50	none 0.1039 R.KVYNDGYDDDN@DYIVK.N 0.1337 R.KVYNDGYDDDN@DYIVK.N none 0.1351 Y.NDGY@DDDN@DYIVKNGEK.W.M 0.1520 Y.NDGYDDDN@DYIVKNGEK.W.M none none
Glycogen synthase kinase-3 beta -- GSK-3beta (GSK3alpha)	Q9WV60	K.QLVRGEPNVS@IC*SR.Y K.QLVRGEPNVS@IC*SR.Y.R L.VRGEPNVS@IC*.S L.VRGEPNVS@IC*S@RYY.R L.VRGEPNVS@IC*SR.Y L.VRGEPNVS@IC*SR.Y.R L.VRGEPNVS@IC*S*RY.Y N.VSY@IC*SR.Y N.VSY@IC*SR.Y.R Q.LVRGEPNVS@IC*SR.Y Q.LVRGEPNVS@IC*SR.Y.R R.GEPNVS@IC*SR.Y R.GEPNVS@IC*SR.Y.R	Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216	2021.36 2184.56 1374.19 2023.70 1781.23 1780.21 1944.89 1943.20 1762.02 1129.07 1291.21 1894.43 1893.13 2056.41 1363.40 1688.41	0.42 0.55 0.59 0.84 1.43 0.41 2.03 0.34 0.22 1.60 0.68 1.55 0.25 0.46 1.83 0.72	0.1148 K.QLVRGEPNVS@YIC*SR.Y 0.0356 K.QLVRGEPNVS@YIC*SR.Y.R 0.1286 L.VRGEPNVS@YIC*.S 0.0640 L.VRGEPNVS@YIC*SR.Y.R 0.1098 L.VRGEPNVS@YIC*SR.Y 0.0264 L.VRGEPNVS@YIC*SR.Y 0.1177 L.VRGEPNVS@YIC*SR.Y.R 0.0594 L.VRGEPNVS@YIC*SR.Y.R 0.1013 L.VRGEPNVS@YIC*S*RY.Y none none 0.1234 Q.LVRGEPNVS@YIC*SR.Y 0.0042 Q.LVRGEPNVS@YIC*SR.Y 0.1617 Q.LVRGEPNVS@YIC*SR.Y.R 0.0889 R.GEPNVS@YIC*SR.Y 0.0826 R.GEPNVS@YIC*SR.Y.R
Homeodomain-interacting protein kinase 1 -- HIPK1 (HIPK2)	O88904	H.VSKAVC*STY@LQSR.Y K.AVC*STY@LQSR.Y S.KAVC*STY@LQSR.Y	Y352 Y352 Y352	1742.55 1742.42 1264.64 1557.06	0.74 0.61 0.09 1.35	0.1304 H.VSKAVC*ST@YLQSR.Y 0.0391 H.VSKAVC*ST@YLQSR.Y 0.1095 K.AVC*ST@YLQSR.Y 0.0866 S.KAVC*ST@YLQSR.Y
Homeodomain-interacting protein kinase 3 -- HIPK3	Q9ERH7	H.VSKTVC*STY@L.Q H.VSKTVC*STY@LQSR.Y K.TVC*STY@LQSR.Y	Y359 Y359 Y359	1237.96 1773.71 1772.23 1294.81	0.39 1.89 0.41 0.25	0.1771 H.VSKTVC*ST@YL.Q 0.0008 H.VSKTVC*STY@LQSR.Y 0.1302 H.VSKTVC*ST@YLQSR.Y 0.0907 K.TVC*ST@YLQSR.Y
Hypothetical Protein kinase-like (PK-like) structure containing protein -- Sgk223	Q8CB68	K.C*VGQAAELQPASLLRDPVQPEPIY@AESAK.R K.C*VGQAAELQPASLLRDPVQPEPIY@AESAK.R	Y196 Y196	3219.49 3375.94	1.92 2.27	0.0171 K.C*VGQAAELQPASLLRDPVQPEPIY@AESAK.R 0.0315 K.C*VGQAAELQPASLLRDPVQPEPIY@AESAK.R
Mitogen-activated protein kinase 3 -- ERK1	Q63844	F.GLARIADPEHDHTGFLT@EY@VATRW.Y F.GLARIADPEHDHTGFLT@EY@VATRW.Y F.GLARIADPEHDHTGFLT*EY@VATRW.Y F.GLARIADPEHDHTGFLT*EY@VATRW.Y F.GLARIADPEHDHTGFLT*EY@VATRW.Y F.LTEY@VATRW.Y R.IADPEHDHTGFLT@EY@VATR.W R.IADPEHDHTGFLT@EY@VATR.W R.IADPEHDHTGFLT*EY@VATR.W	Y205 Y205 Y205 Y205 Y205 Y205 Y205 Y205 Y205	2916.59 2836.39 2818.73 2981.12 1219.17 2333.65 2253.54 2234.94	1.22 1.03 1.37 0.70 0.58 1.61 1.50 0.90	0.0618 F.GLARIADPEHDHT@GFLT@EY@VATRW.Y 0.0116 F.GLARIADPEHDHT@GFLT@EY@VATRW.Y 0.1112 F.GLARIADPEHDHT*GFLT@EY@VATRW.Y 0.0131 F.GLARIADPEHDHT@EY@VAT*RWY.R none none 0.1192 R.IADPEHDHTGFLT@EY@VATR.W 0.1243 R.IADPEHDHTGFLT*EY@VATR.W
Mitogen-activated protein kinase 1 -- ERK2	P63085	F.GLARVADPDHDHTGFLT@EY@VATRW.Y F.GLARVADPDHDHTGFLT@EY@VATRW.Y F.GLARVADPDHDHTGFLT@EY@VATRW.Y F.GLARVADPDHDHTGFLT*EY@VATRW.Y F.GLARVADPDHDHTGFLT*EY@VATRW.Y F.GLARVADPDHDHT*GFLT@EY@VATRW.Y F.GLARVADPDHDHT*GFLT@EY@VATRW.Y R.VADPDHDHTGFLT@EY@VATR.W R.VADPDHDHTGFLT@EY@VATR.W R.VADPDHDHTGFLT@EY@VATR.W R.VADPDHDHTGFLT@EY@VATR.W R.VADPDHDHTGFLT*EY@VATR.W R.VADPDHDHTGFLT*EY@VATR.W R.VADPDHDHTGFLT*EY@VATR.W	Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185	2889.63 3052.12 2971.42 2790.58 2953.38 2790.47 2304.29 2224.33 2224.83 2410.91 2207.28 2207.04 2207.45 2393.29	2.30 1.73 1.03 1.25 0.99 1.14 0.28 0.33 0.83 0.83 1.28 1.03 1.45 1.21	none 0.0666 F.GLARVADPDHDHT@EY@VATR.W 0.0031 F.GLARVADPDHDHT@EY@VATRW.Y 0.1059 F.GLARVADPDHDHT@EY@VAT*RWY.Y 0.0290 F.GLARVADPDHDHT*EY@VATR.W 0.0231 F.GLARVADPDHDHT*GFLT@EY@VATR.W none 0.1191 R.VADPDHDHT@EY@VATR.W 0.0759 R.VADPDHDHT@EY@VATR.W 0.1239 R.VADPDHDHT@EY@VATR.W 0.0626 R.VADPDHDHT*EY@VATR.W 0.1505 R.VADPDHDHT*EY@VATR.W 0.0809 R.VADPDHDHT*GFLT@EY@VATR.W 0.1412 R.VADPDHDHT@EY@VATR.W
Mitogen-activated protein kinase 7 -- ERK5	Q9WVS8	R.GLC*TSPEHQYFM#TEY@VATR.W R.GLC*TSPEHQYFMTEY@VATR.W	Y221 Y221	2457.69 2442.75	0.65 1.71	0.0721 R.GLC*TSPEHQYFM#T@EY@VATR.W 0.0449 R.GLC*TSPEHQYFMTEY@VATR.W
Mitogen-activated protein kinase 8 -- JNK1	Q91Y86	R.TAGTSFMMPY@VVTR.Y	Y185	1743.49	1.69	0.0662 R.TAGTSFMMPY@VVTR.Y
Mitogen-activated protein kinase 9 -- JNK2	Q9WTU6	R.TAC*TNFMMPY@VVTR.Y	Y185	1873.63	1.83	none
Mitogen-activated protein kinase 14 -- MAP kinase p38 alpha	P47811	F.GLARHTDDEM#TG@VATRW.Y F.GLARHTDDEMTGY@VATRW.Y F.GLARHTDDEMTGY@VATRW.Y L.ARHTDDEMTGY@VATRW.Y L.DFGLARHTDDEMTGY@VATRW.Y R.HTDDEM#TG@VATR.W R.HTDDEMTGY@VATR.W	Y181 Y181 Y181 Y181 Y181 Y181 Y181	2175.50 2159.40 2160.64 2323.53 1990.25 2422.09 1592.19 1576.90 1575.91	0.53 0.43 1.67 1.50 1.38 1.02 0.54 1.25 0.26	0.1347 F.GLARHTDDEM#T@GYVATRW.Y 0.0954 F.GLARHTDDEMT@GYVATRW.Y 0.1691 F.GLARHTDDEMT@GYVATRW.Y 0.0947 F.GLARHTDDEMT@GYVATRW.Y 0.1864 L.ARHTDDEMT@GYVATRW.Y 0.0849 L.DFGLARHTDDEMT@GYVATRW.Y 0.0807 R.HTDDEM#T@GYVATR.W none 0.0886 R.HTDDEMT@GYVATR.W

Serine/threonine-protein kinase PAK 2	Q8CIN4	K.LRTIVSIGDPKKKYTRY@EK.I	Y252	2376.11	0.79	0.0793 K.LRTIVSIGDPKKKYTRY@RYEK.I
Serine/threonine-protein kinase -- PFTAIRE-1	O35495	K.LEKLGEGS@Y@ATVYK.G	Y146	1718.66	0.84	0.0483 K.LEKLGEGS@YAT@VYK.G
Serine/threonine-protein kinase -- PCTAIRE-3	Q04899	K.LDKLGEGTY@ATVFK.G	Y132	1623.36	1.54	0.1410 K.LDKLGEGTYAT@VFK.G
Serine/threonine-protein kinase -- PRP4	Q61136	C.DFGS@AS@HVADNDITPY@LVSRFY.R F.GSASHVADNDITPY@LVSRFY F.GSASHVADNDITPY@LVSRFY.R H.VADNDITPY@LVSRFY H.VADNDITPY@LVSRFY.R K.LC*DFGSASHVADNDITPY@LVSR.F K.LCDFGSAS@HVADNDITPY@LVSR.F L.C*DFGSASHVADNDITPY@LVSRFY S.HVADNDITPY@LVSRFY.R	Y849 Y849 Y849 Y849 Y849 Y849 Y849 Y849 Y849 Y849	2716.16 2129.80 2294.39 1691.52 1853.23 2518.48 2518.24 2540.29 2552.41 1991.45	2.00 0.80 2.32 1.70 0.34 1.36 1.12 0.17 1.30 1.50	0.0791 C.DFGS@AS@HVADNDITPY@LVSRFY.R 0.1221 F.GSASHVADNDIT@PVLVSRFY 0.0608 F.GSASHVADNDIT@PVLVSRFY.R 0.1790 H.VADNDIT@PVLVSRFY 0.0895 H.VADNDIT@PVLVSRFY.R 0.0690 K.LC*DFGSASHVADNDITPY@LVSR.F 0.0031 K.LC*DFGSASHVADNDITPY@LVSR.F 0.0305 K.LCDFGSAS@HVADNDITPY@LVSR.F 0.0112 L.C*DFGSASHVADNDIT@PVLVSRFY 0.1081 S.HVADNDIT@PVLVSRFY.R
RIKEN CDNA C230081A13: hypothetical Protein kinase A anchoring domain containing protein -- SgK269	Q8BX56	K.FNSYNNAGM#PPFPIIHDEPSY@AR.S K.NAIKVPIVINPNAY@DNLAIK.S K.NAIKVPIVINPNAY@DNLAIK.S K.NAIKVPIVINPNAY@DNLAIK.S K.VPIVINPNAY@DNLAIK.S	Y613 Y632,Y638 Y632 Y638 Y632	2847.87 2503.86 2425.00 2424.81 2424.31 1998.75	1.56 0.55 1.69 1.50 0.99 1.70	0.0304 K.FNSYNNAGM#PPFPIIHDEPS@YAR.S none none none none none
Protein phosphatases						
Protein phosphatase 2 regulatory subunit B56 delta isoform	Q99PC9	R.KSELPOQDVY@T*IK.A	Y572	1483.33	0.56	none
Receptor-type tyrosine-protein phosphatase alpha -- R-PTP-alpha	P18052	K.VVQEYIDAFSDY@ANFK.- Y.IDAFSDY@ANFK.- Y.KVVQEYIDAFSDY@ANFK Y.KVVQEYIDAFSDY@ANFK.-	Y825 Y825 Y825 Y825	1990.73 1989.39 1371.08 1990.24 2117.46 2117.96	1.83 0.49 0.48 1.34 0.46 0.95	0.1360 K.VVQEYIDAFS@DYANFK.- 0.1321 K.VVQEYIDAFS@DYANFK.- 0.1983 Y.IDAFS@DYANFK.- 0.1699 Y.KVVQEYIDAFS@DYANFK 0.1423 Y.KVVQEYIDAFS@DYANFK.- 0.1172 Y.KVVQEYIDAFS@DYANFK.-
Tyrosine-protein phosphatase, non-receptor type 11 -- SHP-2	P35235	H.IKIQNTGDY@YDLY.G K.IQNTGDY@YDLYGGEK.F R.EDSARVY@ENVGLMQQQR.S R.VY@ENVGLMQQQR.S	Y62 Y62 Y584 Y584	1687.55 1816.64 2103.27 1546.68	1.77 0.86 0.30 1.95	0.0825 H.IKIQNT@GDYDLY.G 0.0608 K.IQNTGDY@DLYGGEK.F 0.0252 R.EDS@ARVYENVGLMQQQR.S none
SIGNALING: SMALL G PROTEINS AND REGULATORS						
Glucocorticoid receptor DNA binding factor 1 [fragment] -- p190RhoGAP	Q91YM2	R.NEEENIY@SVPHDSTQGK.I W.MPOQDGFDPDSY@AEPMDAVVKPRNEENIY.S	Y943 Y925	2028.37 2027.38 3437.09	1.50 0.51 0.62	0.1129 R.NEEENIY@VPHDSTQGK.I 0.0347 R.NEEENIY@VPHDSTQGK.I 0.0641 W.MPOQDGFDPDS@DYAEPMDAVVKPRNEENIY.S
Breast cancer anti-estrogen resistance protein 3 -- BCAR3	Q9QZK2	F.IFRDPY@LLDPTLEY.V F.IFRDPY@LLDPTLEYVKF.S Y.LLDPTLEY@VKF.S R.KGENIFIRDPY@LLDPTLEY@VK.F R.KGENIFIRDPY@LLDPTLEYVK.F L.RLSEAY@SRVQY.Q	Y103 Y103 Y111 Y103,Y111 Y103 Y206	1836.11 2211.16 1418.86 2717.86 2638.73 1451.76	1.20 2.03 1.12 0.53 1.40 0.06	none 0.1678 F.IFRDPY@LLDPT@LEYVKF.S none 0.0895 R.KGENIFIRDPY@LLDPT@LEYVK.F none 0.1168 L.RLSEAYS@RVQY.Q
ARF GTPase-activating protein -- GIT1	Q68FF6	R.SQSELDDQHDY@DS@VAS@DEDTDQEPLPSAG ATR.N R.SQSELDDQHDY@DS@VAS*DEDTDQEPLPSAG TR.N F.HSTELEDDAIY@SVHVPAGLYR R.LQPFHS@TELEDDAIY@SVHVPAGLYR.I R.LQPFHSTELEDDAIY@SVHVPAGLYR.I R.LQPFHSTELEDDAIY@SVHVPAGLYR.I	Y392 Y392 Y554 Y554 Y554	3719.62 3621.05 2296.44 3019.56 2936.69 2921.29	1.16 0.59 0.39 2.14 -0.74 1.87	0.0607 R.SQS@ELDDQHDY@DS@VAS@DEDTDQEPLPSAGATR.N 0.1120 R.SQS@ELDDQHDY@DS@VAS*DEDTDQEPLPSAGATR.N 0.0911 F.HSTELEDDAIY@SVHVPAGLYR 0.0239 R.LQPFHST@ELEDDAIY@SVHVPAGLYR.I 0.1052 R.LQPFHSTELEDDAIY@SVHVPAGLYR.I 0.0118 R.LQPFHSTELEDDAIY@SVHVPAGLYR.I
ARF GTPase-activating protein -- GIT2	Q9JLQ2	K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K	Y541 Y541	2854.17 2982.55	2.11 2.40	0.0570 K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K 0.0951 K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K
Ras GTPase-activating-like protein -- IQGAP1	Q9JKF1	K.LQQTY@ALNSK.A	Y1510	1333.04	0.38	0.0103 K.LQQTY@ALNSK.A
Ras and Rab interactor 1 -- Rin1	Q921Q7	K.EKPSTDPLY@DTPDTR.G	Y35	1816.51	1.69	0.1779 K.EKPST@DPLYDTPDTR.G
Rho-GTPase-activating protein 12	Q8C0D4	M.RATT@PPNQGRPDS@PVY@ANLQEL.K M.RATT@PPNQGRPDS@PVY@ANLQEL.K R.AT@TPNQGRPDS@PVY@ANLQELK.I R.AT@TPNQGRPDS@PVY@ANLQELK.I R.ATT@PPNQGRPDS@PVY@ANLQELK.I	Y241 Y241 Y241 Y241 Y241	2665.38 2584.73 2637.23 2539.23 2637.05	1.15 0.50 1.01 1.01 0.83	0.0400 M.RAT@TPNQGRPDS@PVY@ANLQEL.K none 0.0093 R.ATT@PPNQGRPDS@PVY@ANLQELK.I 0.0100 R.ATT@PPNQGRPDS@PVY@ANLQELK.I 0.0040 R.ATT@TPNQGRPDS@PVY@ANLQELK.I
SIGNALING: OTHER						
Abl interactor 1 -- Abi-1	Q8CBW3	K.TLEPVKPTVPNDY@MTSPAR.L	Y212	2295.33	2.20	0.0690 K.TLEPVKPTVPNDY@MTSPAR.L

		R.NTPY@KTLEPVKPTVPNDY@MTSPAR.L R.NTPYKT@LEPVKPTVPNDY@MTSPAR.L Y.KTLEPVKPTVPNDY@MTSPAR.L.G	Y212 Y212 Y212	2293.83 2978.21 2977.76 2536.20	0.70 1.78 1.33 1.89	0.1074 K.TLEPVKPTVPNDYMT@SPAR.L 0.0601 R.NT@PYKTLEPVKPTVPNDY@MTSPAR.L 0.0027 R.NTPY@KTLEPVKPTVPNDY@MTSPAR.L 0.0795 Y.KTLEPVKPTVPNDYMT@SPAR.L.G
Annexin A2	P07356	K.LSLEGDHSTPPSAY@GSVKPYTNFDAER.D K.LSLEGDHSTPPSAY@GSVKPYTNFDAERDALNIETAVK.T C.KLSLEGDHSTPPSAY@GSVKPY.T L.SLEGDHSTPPSAY@GSVKPY.T K.RKY@GKSLYYIQDQTK.G	Y23 Y23 Y23 Y310	3019.60 4074.03 2314.18 2072.37 2072.20 2133.59	1.21 1.08 1.07 0.44 0.27 -0.48	0.1039 K.LSLEGDHSTPPS@AYGSVKPYTNFDAER.D 0.0831 K.LSLEGDHSTPPS@AYGSVKPYTNFDAERDALNIETAVK.T 0.0405 C.KLSLEGDHSTPPS@AYGSVKPY.T 0.0611 L.SLEGDHSTPPS@AYGSVKPY.T none
Ankyrin repeat and SAM domain-containing protein 1 -- ANKS1	P59672	L.AVRPRIQS@SAPQEEEEHPY@ELL.L L.AVRPRIQS@SAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L	Y471 Y471 Y471 Y471 Y471	2625.39 2739.27 2545.60 2660.04 2771.51	0.18 0.98 0.39 1.75 0.14	0.0703 L.AVRPRIQSS@APQEEEEHPY@ELL.L 0.0426 L.AVRPRIQSS@APQEEEEHPY@ELL.L none none none
Calmodulin	P62204	R.VFDKDGNGY@ISAAELR.H F.RVFDKDGNGY@ISAAELR	Y99 Y99	1835.70 1835.25	0.83 0.38	0.1715 R.VFDKDGNGYIS@AAELR.H 0.1911 F.RVFDKDGNGYIS@AAELR
Caveolin-1	P49817	K.YVDSEGHLY@TVPIR.E	Y14	1729.56	0.73	0.1046 K.YVDSEGHLYT@VPIR.E
Caveolin-2	Q9WVC3	F.MADDAYS@HHS@GVDY@ADPEKY.V F.MADDAYS@HHS*GVDY@ADPEKY.V F.MADDAYSHHS@GVDY@ADPEKY.V F.MADDAYSHHS@GVDY@ADPEKY.V F.MADDAYS*HHS@GVDY@ADPEKY.V Y.SHHS@GVDY@ADPEKY.V	Y27 Y27 Y27 Y27 Y27 Y27	2511.77 2413.36 2431.75 2352.07 2413.77 1686.41	0.84 0.43 0.82 1.14 0.84 1.71	0.0208 F.MADDAY@SHHS@GVDY@ADPEKY.V 0.0294 F.MADDAYS*HHS@GVDY@ADPEKY.V 0.0532 F.MADDAYS@HHS@GVDY@ADPEKY.V 0.1833 F.MADDAYSHHS@GVDY@ADPEKY.V 0.0476 F.MADDAYS@HHS*GVDY@ADPEKY.V none
Proto-oncogene c-Crk	Q64010	L.IGGNQECSHPQPLGGPEPGPY@AQPSVN.T Y.AQPSVNTPLNQLNGPIY@ARVIQ.K K.RVFNAY@DKTALALEVELVK.V Q.KRVFNAY@DKTALA	Y221 Y239 Y251 Y251	2765.21 2571.23 2267.51 1456.62	0.94 0.88 1.29 0.85	0.1614 L.IGGNQECSHPQPLGGPEPGPYAQPS@VN.T none 0.1337 K.RVFNAYDKT@ALALEVELVK.V none
Crk-like protein	P47941	Y.VRTLY@DFPGNDAEDLPF.K H.GKHGNRNS@NSY@GIPEPAHAY.A H.GNRNS@NSY@GIPEPAHAY.A H.GNRNSNSY@GIPEPAHAY.A R.NSNSY@GIPEPAHAYAQPTTTPLPTVASTPGAALNPLPSTQNGPVFAK.A R.NSNSYGIPEPAHAY@AQPTTTPLPTVASTPGAALNPLPSTQNGPVFAK.A	Y132 Y198 Y198 Y198 Y198 Y207	2049.94 2329.96 2007.22 1926.66 4954.83 4953.06	1.01 0.94 0.37 -0.19 1.39 -0.38	0.0171 Y.VRT@LYDFPGNDAEDLPF.K 0.0533 H.GKHGNRNS@NS@YGIPEPAHAY.A 0.0145 H.GNRNS@NS@YGIPEPAHAY.A 0.0455 H.GNRNSNS@YGIPEPAHAY.A 0.0067 R.NSNS@YGIPEPAHAYAQPTTTPLPTVASTPGAALNPLPSTQNGPVFAK.A 0.0482 R.NSNSYGIPEPAHAYAQPT@TTPLPTVASTPGAALNPLPSTQNGPVFAK.A
Docking protein 1 (Dok1)	P97465	R.IPPGPSQDSVY@SDPLGSTPAGAGEGVHSK.K K.KPLYWDLY@GHVQQQLL.K K.LTDSKEDIY@DEPEGLAPAPPR.G K.TKLTDSKEDIY@DEPEGLAPAPPR.G L.KTKLTDSKEDIY@DEPEGLAPAPPRGLY.D L.LKTKLTDSKEDIY@DEPEGLAPAPPRGLY.D R.LKEEGYELPYNPATDDY@AVPPR.S F.SSDTALY@SQVQKSGTSGAW.D K.GFSSDTALY@SQVQK.S	Y314 Y340 Y361 Y361 Y361 Y361 Y408 Y450 Y450	2888.77 2210.90 2490.85 2491.80 2720.84 3181.70 3295.51 2715.69 2054.41 1611.29	1.42 1.75 0.67 1.62 1.52 1.12 1.84 1.42 1.49 0.55	0.0507 R.IPPGPSQDS@VYSDPLGSTPAGAGEGVHSK.K none 0.0169 K.LTDS@KEDIYDEPEGLAPAPPR.G none none 0.1003 L.KTKLTDS@KEDIYDEPEGLAPAPPRGLY.D 0.0090 L.LKTKLTDS@KEDIYDEPEGLAPAPPRGLY.D 0.1685 R.LKEEGYELPYNPAT@DDYAVPPR.S 0.0872 F.SSDTALYS@QVQKSGTSGAW.D 0.1228 K.GFSSDTALYS@QVQK.S
Ephrin-B2 precursor (Ephrin-B1)	P52800	R.TADSVFC*PHY@EK.V K.VSGDY@GHPVYIVQEMPPQSPANIYK.V.- K.VSGDYGHPVY@IVQEMPPQSPANIY@YK.V.- K.VSGDYGHPVYIVQEM#PPQSPANIY@YK.V.- K.VSGDYGHPVYIVQEMPPQSPANIY@YK.V.-	Y307 Y314 Y319,Y333 Y333 Y333	1533.58 3133.25 3213.54 3148.50 3132.93	-0.04 1.76 2.05 1.01 1.44	none 0.0505 K.VSGDYGHPVY@IVQEMPPQSPANIYK.V.- 0.0037 K.VSGDY@GHPVYIVQEMPPQSPANIY@YK.V.- 0.0827 K.VSGDYGHPVYIVQEM#PPQSPANIY@YK.V.- none
Fibroblast growth factor receptor substrate 2 -- FRS2	Q8C180	K.LVY@ENINGLSIPSASGVR.R R.RPALLNY@ENLPSLPPVWEAR.K	Y306 Y349	1969.34 2416.51	0.33 1.25	none none
Fish protein -- TKS5	O89032	K.VKYEEPEY@DVPAFGDFSEPEMNEEPSGDR.G	Y557	3443.91	1.48	0.0364 K.VKY@EEPEYDVPAFGDFSEPEMNEEPSGDR.G
GRB2-associated binding protein 1 -- Gab1	Q9QYY0	K.HGMNGFFQQMMY@DC*PPSR.L K.DASSQDC*Y@DIPR.T L.RKDASSQDC*Y@DIPR.T.F N.KLRKDASSQDC*Y@DIPR.T.F R.KDASSQDC*Y@DIPR.T	Y242 Y407 Y407 Y407 Y407	2412.02 1506.85 2039.52 2280.55 1635.93 1635.28	1.09 0.28 0.64 0.49 1.27 0.62	none none none 0.1319 N.KLRKDASSQDC*YDIPR.T@F.P none none
Insulin receptor substrate 2 -- IRS-2	P81122	K.SSSSNLGAADDGY@MPM#TPGAALR.S K.SSSSNLGAADDGY@MPMTPGAALR.S K.SDDY@MPMSPTSVSAPK.Q	Y649 Y649 Y671	2293.62 2279.62 1793.58	-0.38 1.63 0.83	none none 0.0249 K.S@DDYMPMSPTSVSAPK.Q
Insulin receptor substrate-2 (IRS-2) (4PS) homolog [Fragment]	Q3U2I0	R.SYKAPC*SC*SGDDDDQY@VLMSSPVGR.I	Y754	2759.44	0.33	none
Kin of IRRE-like protein 1 precursor	Q80W68	K.AIY@SSFKDDVDLK.Q K.AIY@SSFKDDVDLKQDLR.C	Y604 Y604	1581.16 2093.01	0.40 -0.02	0.1327 K.AIYS@SFKDDVDLK.Q 0.1376 K.AIYS@SFKDDVDLKQDLR.C

		R.EEYEMKDPTNGY@YVNR.A R.AVLY@ADY@RAPGPTR.F Y.NVRAHEDRPSSRAVLY@ADY.R R.TPY@EAYDPIGK.Y Y.RLGYPOAPPSGLERTPY@EAYDPIGKY.A R.TPYEAY@DPIGK.Y	Y637 Y654, Y657 Y654 Y753 Y753 Y756	2088.84 1710.06 2299.69 1334.35 3020.61 1333.93	0.95 0.25 0.59 0.75 2.14 0.33	0.0102 R.EEYEMKDPTNGY@NVR.A none 0.1088 Y.NVRAHEDRPSS@RAVLYADY.R 0.1201 R.T@PYEAYDPIGK.Y 0.1308 Y.RLGYPOAPPSGLERTPYEAY@DPIGKY.A none
myelin protein zero-like 1 -- PZR	Q3TEW6	K.SPSSAGSHQGPVIV@AQLDHSGGHSHGK.I K.INKSESVVY@ADIR.K K.INKSESVVY@ADIRK.D- K.SESVVY@ADIR.K N.KSESVVY@ADIRK.D- H.SGKINKSESVVY@ADIRK.D-	Y242 Y264 Y264 Y264 Y264 Y264	2788.83 1574.44 1574.04 1817.67 1219.29 1590.69 2090.06	0.54 0.64 0.24 0.75 0.72 0.90 0.99	none none none none 0.1964 K.SES@VVYADIR.K none none
Non-catalytic region of tyrosine kinase adaptor protein 1 -- NCK1	Q99M51	K.RKPS@VPDTASPADDSFVDPGERLY@DLNM#PAFVK.F K.RKPS@VPDTASPADDSFVDPGERLY@DLNMPAFVK.F K.RKPSVPDTASPADDSFVDPGERLY@DLNMPAFVK.F	Y105 Y105 Y105	3812.62 3796.70 3716.28	1.84 1.92 1.50	0.1535 K.RKPSVPDT@ASPADDSFVDPGERLY@DLNM#PAFVK.F 0.0441 K.RKPSVPDT@ASPADDSFVDPGERLY@DLNMPAFVK.F 0.1820 K.RKPSVPDTASPADDS@FVDPGERLY@DLNMPAFVK.F
PDZ and LIM domain protein 5	Q8CI51	R.NTEFY@HIPHSDASK.K	Y251	1829.28	2.47	none
Phosphatidylinositol 3-kinase regulatory alpha subunit -- p85alpha	P26450	K.SREYDRLY@EEYTR.T R.DQY@LMWLTQK.G K.LNEWLGNENTEDQY@SLVEDDEDLPHHDEK.T	Y467 Y580 Y607	1860.48 1407.45 3565.69	0.65 1.79 2.17	none none 0.0197 K.LNEWLGNENTEDQYS@LVEDDEDLPHHDEK.T
Phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 2 -- p85beta	O08908	R.EYDQLY@EEYTR.T	Y458	1589.19	0.54	0.1826 R.EYDQLYEEY@TR.T
Protein LAP2	Q80TH2	R.RTEGDY@LSYR.E R.TEGDY@LSYR.E	Y1097 Y1097	1340.40 1183.37	0.80 -0.13	0.0788 R.RTEGDYLS@YR.E 0.1618 R.TEGDYLS@YR.E
SH2 domain-containing adapter protein B -- Shb	Q6PD21	C.RLDY@C*GGGGGGDPGGGQRAF.T L.RAMC*RLDY@C*GGGGGGDPGGGQRAF.T M.C*RLDY@C*GGGGGGDPGGGQRAF.T R.LDY@C*GGGGGGDPGGGQRAF.T K.C*SAEETGAGQKDKVTIADDY@SDPFDAK.S K.DKVTIADDY@SDPFDAK.S K.VTIADDY@SDPFDAK.S L.LNKC*SAEETGAGQKDKVTIADDY@SDPF.D F.DAKSDLKSKAGKGESAGY@MEPYE F.DAKSDLKSKAGKGESAGY@MEPYE K.AGKGESAGY@MEPYEAQR.I K.AGKGESAGY@MEPYEAQR.I K.GESAGY@MEPYEAQR.I K.SKAGKGESAGY@MEPYEAQR.I L.KSKAGKGESAGY@MEPYE K.LPQDDDRPADEY@DQPWEWNR.V L.RLRESKLPQDDDRPADEY@DQPWE R.ESKLPQDDDRPADEY@DQPWEWNR.V	Y113 Y113 Y113 Y113 Y240 Y240 Y240 Y262 Y262 Y262 Y262 Y262 Y262 Y330 Y330 Y330	2034.85 2553.43 2194.54 1660.02 2999.08 1880.27 1881.05 1637.43 3039.87 2429.15 2412.85 1940.45 1925.54 1924.60 1667.98 2139.90 1782.91 2626.86 2810.06 2969.85	1.01 1.40 0.69 0.39 0.80 0.44 1.22 0.72 0.53 1.04 0.74 0.62 1.71 0.77 0.31 0.95 0.10 1.76 0.77 0.58	none none none none 0.0223 K.C*SAEETGAGQKDKVTIADDYS@DPFPAK.S 0.1276 K.DKVTIADDYS@DPFPAK.S 0.0685 K.DKVTIADDYS@DPFPAK.S 0.0466 K.VTIADDYS@DPFPAK.S 0.0139 L.LNKC*SAEETGAGQKDKVTIADDYS@DPF.D 0.0830 F.DAKSDLKSKAGKGES@AGYM#EPY.E 0.0262 F.DAKSDLKSKAGKGES@AGYMEPYE 0.0601 K.AGKGES@AGYM#EPYEAQR.I 0.0898 K.AGKGES@AGYMEPYEAQR.I none 0.1536 K.GES@AGYMEPYEAQR.I none 0.0766 L.KSKAGKGES@AGYMEPYE none none none
SHC transforming protein 1 -- SHC1	P98083	K.QM#LPPPPC*PGRELFDDPSY@VNIQNLDK.A R.ELFDDPSY@VNIQNLDK.A K.QMLPPPRCPGRELFDDPSY@VNIQNLDK.A R.KQMLPPPRCPGRELFDDPSY@VNIQNLDK.A R.MAGFDGSAWDEEEEEPPDHQY@Y@NDFPGKEPPLGGVDMR.L R.MAGFDGSAWDEEEEEPPDHQY@Y@NDFPGKEPPLGGVDMR.L	Y423 Y423 Y423 Y423 Y349, Y350 Y350	3237.45 1990.62 3222.94 3351.93 4572.10 4493.24	0.95 0.70 0.40 1.29 1.21 2.35	0.0085 K.QM#LPPPPC*PGRELFDDPSY@VNIQNLDK.A 0.0530 R.ELFDDPSY@VNIQNLDK.A 0.0076 K.QMLPPPRCPGRELFDDPSY@VNIQNLDK.A 0.0313 R.KQMLPPPRCPGRELFDDPSY@VNIQNLDK.A none 0.0258 R.MAGFDGSAWDEEEEEPPDHQY@Y@NDFPGKEPPLGGVDMR.L
SH2-containing inositol 5-phosphatase 2 -- SHIP2	Q9JLL7	K.NSFNNPAY@VLEGVPHQLLPLEPPSLAR.A	Y987	3217.81	2.18	0.0380 K.NSFNNPAY@VLEGVPHQLLPLEPPSLAR.A
Tyrosine-protein phosphatase non-receptor type substrate 1 - SHPS1	P97797	Y.ASIETGKVPREPDLTY@ADLDMVHL.S	Y481	2852.91	1.52	0.0159 Y.ASIETGKVPREPDLTY@ADLDMVHL.S
Signal transducer and activator of transcription 3 -- STAT3	P42227	K.YC*RPESQEHPEADPGSAAPY@LK.T	Y705	2584.06	1.95	0.0759 K.YC*RPESQEHPEADPGS@AAPYLK.T
STAT3 splice isoform Del-701	P42227-3	K.YC*RPESQEHPEADPGSAAPY@LK.T	Y704	2496.75	1.67	none
Signal transducer and activator of transcription 5B -- STAT5B	P42232	K.AADGY@VKPQIK.Q	Y699	1271.08	1.43	none
ADHESION: CELL/ECM						
CRK-associated substrate -- p130cas	Q61140	K.TQQGLY@QAPGNPQFQSPPAK.Q R.VGGQYVYEAQTEQDEY@DTPR.H Y.VYEAQTEQDEY@DTPRHLL R.HLLAPGPQDIY@DVPPVR.G	Y132 Y238 Y238 Y253	2334.53 2500.90 2500.30 2245.97 2246.15 1968.31	0.40 1.83 1.23 0.99 1.17 1.30	0.1231 K.T@QQGLYQAPGNPQFQSPPAK.Q 0.0268 R.VGGQYVYEAQTEQDEY@DTPR.H 0.1051 R.VGGQYVYEAQTEQDEY@DTPR.H 0.1402 Y.VYEAQTEQDEY@DTPRHLL none none

		L.LAPGQDIY@DVPPVRGLLPNQY.G R.GLLPNQYQEVY@DTPPMVAVK.G	Y253 Y271	1967.35 2502.60 2301.33 2301.61 2248.94 2076.35 2636.66 1407.80 2914.03 2629.75 1818.84	0.34 0.32 1.23 1.51 1.84 0.34 2.34 0.09 0.59 1.46 -0.04	none none none none none none 0.0884 K.DVPDGPLLREET@YDVPPAFAPK.P 0.0443 R.RPGPGT@LYDVPR.E none none 0.1534 L.SRQLQKMEDVYQT@L.V
Enhancer of filamentation 1 -- HEF1	O35177	R.TGHGYVY@EYPSR.Y K.ANPEERDGVY@DVPLHNPADAK.G	Y165 Y344	1510.24 2387.12	1.59 0.02	none none
Integrin beta-1 precursor	P09055	K.WDTGENPIY@K.S	Y783	1303.91	1.34	none
Lipoma-preferred partner homolog - LPP	Q8BFW7	H.YMAGPSSGQIY@GPGPRGY.N M.AGPSSGQIY@GPGPRGY.N Y.MAGPSSGQIY@GPGPRGY.N R.GYNNQPVVSGQC*PPPPT*VGTDY@AYIPPSG HPPESGYGTSNQGR.Y R.YYEPY@YAAGPSYGGR.S R.YYEPY@YAAGPSYGGR.S	Y245 Y245 Y245 Y276 Y301 Y302	1938.33 1938.43 1644.21 1775.96 1776.09 5002.32 1794.43 1794.15	0.47 0.57 0.45 1.16 1.29 2.16 0.68 0.40	none none none none none 0.0858 R.GYNNQPVVSGQC*PPPPT*C*VGTDYAYIPPSGHPPESGYGT SNQGR.Y 0.0190 R.YYEPY@YAAGPSYGGR.S 0.0399 R.YYEPY@YAAGPSYGGR.S
Paxillin	Q8VI36	F.LSEEPY@SYPTGNHTY.Q L.SEEPY@SYPTGNHTY.Q S.KRPVFLSEEPY@SYPTGNHTY.Q R.YAHQQPPS@PLPVY@SSSAK.N R.YAHQQPPS@PLPVY@SSSAK.N R.YAHQQPPS@PLPVY@SSSAK.N R.AGEEHVY@SFPNK.Q R.AGEEHVY@SFPNKQK.S	Y31 Y31 Y31 Y88 Y88 Y88 Y118 Y118	1935.30 1822.11 2562.44 2117.57 2038.11 2020.40 1587.51 1587.54 1843.79 1843.66	0.48 0.38 0.24 0.59 1.13 1.42 0.82 0.85 0.95 0.82	0.1599 F.LSEEPY@SYPTGNHTY.Q 0.1081 L.SEEPY@SYPTGNHTY.Q 0.0155 S.KRPVFLSEEPY@SYPTGNHTY.Q 0.0680 R.YAHQQPPS@PLPVY@SSSAK.N 0.0227 R.YAHQQPPS@PLPVY@SSSAK.N 0.0065 R.YAHQQPPS@PLPVY@SSSAK.N 0.1862 R.AGEEHVY@SFPNK.Q 0.1021 R.AGEEHVY@SFPNK.Q 0.0905 R.AGEEHVY@SFPNKQK.S 0.0656 R.AGEEHVY@SFPNKQK.S
Pleckstrin homology domain containing family C member 1	Q8CIB5	L.IMP GSGSIY@SSPGLY.S	Y179	1610.20	1.45	0.0345 L.IMP GSGSIY@SSPGLY.S
Syndecan-4 precursor	O35988	K.KAPTNEFY@A.- Y.KAPTNEFY@A.-	Y197 Y197	1120.70 1249.15	0.19 0.55	none none
Talin 1	P26039	K.TM#QFEPSTMVY@DAC*R.M K.TM#QFEPSTMVY@DAC*R.M M.QFEPSTMVY@DAC*RM.I F.LSDDDPKGIWLEAGKALDY@Y.M K.ALDY@YM#LR.N K.ALDY@YMLR.N W.LEAGKALDY@Y.M R.IGITNHDEY@SLVR.E K.LLGEIAQGNY@AGIAR.D	Y26 Y26 Y26 Y70 Y70 Y70 Y70 Y127 Y1116	1931.70 1917.52 1815.37 2477.47 1142.35 1126.77 1222.98 1597.61 1597.19 1940.75	-0.05 1.77 0.66 0.27 1.83 2.25 0.41 0.83 0.41 0.79	none none none 0.0283 F.LSDDDPKGIWLEAGKALDY@Y.M 0.1561 K.ALDY@YM#LR.N 0.1423 K.ALDY@YMLR.N 0.1351 W.LEAGKALDY@Y.M 0.1460 R.IGITNHDEYS@LVR.E 0.1268 R.IGITNHDEYS@LVR.E none
Tensin	Q9DBT6	R.HAAY@GGY@STPEDR.R R.HAAY@GGYSTPEDR.R R.HAAYGGY@STPEDR.R R.HAAYGGY@STPEDRRPT*LSR.Q	Y213,Y216 Y213 Y216 Y216	1584.27 1504.50 1503.84 2197.12	0.65 0.88 0.22 1.08	0.0415 R.HAAY@GGYS@TPEDR.R none 0.0381 R.HAAYGGYS@TPEDR.R 0.0284 R.HAAYGGYST@PEDRRPT*LSR.Q
Tensin 2	Q8CJ95	H.TRGPLDGSPIY@AQVQ.R L.AHTRGPLDGSPIY@AQVQ.R R.GPLDGSPIY@AQVQ.R.V K.VGEEGHEGC*SY@AVC*SEGR.Y	Y460 Y460 Y460 Y747	1568.33 1777.10 1468.33 2064.20	-0.41 0.26 0.63 1.45	0.0563 H.TRGPLDGS@PYAQVQ.R 0.1306 L.AHTRGPLDGS@PYAQVQ.R none 0.0532 K.VGEEGHEGC*SY@AVC*SEGR.Y
Tensin 3	Q5SSZ5	L.HTQGPVVDGSLY@AKVR.K R.KPSAPTPVQAYGQSNY@STQTWVR.Q	Y354 Y584	1709.58 2647.84	1.72 1.57	none 0.0899 R.KPSAPTPVQAYGQSNY@STQTWVR.Q
Vinculin	Q64727	R.ILLRNPNGQAAY@EHFETMK.N K.SFLDSGY@R.I	Y691 Y821	2312.45 1025.39	0.33 0.93	none 0.1505 K.SFLDS@GYR.I
ADHESION: CELL/CELL						
Catenin delta-1 -- p120 catenin	P30999	K.LNGPQDHNHLLY@STIPR.M R.HYEDGYPGGSDNY@GSLSR.V R.HYEDGYPGGSDNY@GS*LSR.V R.FHPEPYGLEDDQRSMGY@DDLTY@GMMSDYGT AR.R K.SDNNY@STLNER.G	Y96 Y228 Y228 Y291,Y296 Y877	2054.94 2057.00 2054.01 2054.34 2036.37 3893.08 1392.42	-0.07 1.98 0.18 0.51 0.54 1.54 -0.16	0.0532 K.LNGPQDHNHLLYS@TIPR.M 0.0202 K.LNGPQDHNHLLYS@TIPR.M 0.0958 R.HYEDGYPGGSDNYGS@LSR.V 0.0534 R.HYEDGYPGGSDNYGS@LSR.V 0.1906 R.HYEDGYPGGSDNYGS@LSR.V 0.0094 R.FHPEPYGLEDDQRS@MGYDDLTY@GMMSDYGTAR.R 0.1096 K.SDNNYS@TLNER.G
Ctnnd1 protein -- p120 catenin, isoform	Q80XQ4	K.SLDNNY@STLNER.G	Y904	1505.93	0.27	0.1639 K.SLDNNYS@TLNER.G

Discs large homolog 3	P70175	R.RDNEVDGQDY@HFVWSR.E	Y705	2017.09	1.20	none
Fath protein [fragment]	Q497H5	K.NIY@SDIPPQVPRVIRISYTPSIPSDSR.N	Y952	2979.37	0.87	0.0523 K.NIYS@DIPPQVPRVIRISYTPSIPSDSR.N
Partitioning-defective 3 homolog -- PARD3	Q99NH2	R.ISHSLY@SGIEGLDESPTR.N R.RIS@HSLY@SGIEGLDESPTR.N R.RISHS@LY@SGIEGLDESPTR.N R.RISHSLY@SGIEGLDESPTR.N R.ERDY@AEIQDFHR.T R.EGHLMDTLY@AQVK.K R.KNASSISQDSWEQNY@APGEGFQSAK.E	Y719 Y719 Y719 Y719 Y1076 Y1123 Y1238	2041.58 2041.22 2278.02 2278.89 2197.76 1660.64 1585.31 2810.61	0.62 0.26 0.96 1.83 0.70 1.91 0.56 1.37	0.0075 R.ISHSLY@SGIEGLDESPTR.N 0.0823 R.ISHSLY@SGIEGLDESPTR.N 0.0016 R.RIS@HSLY@SGIEGLDESPTR.N 0.0184 R.RIS@HSLY@SGIEGLDESPTR.N 0.0938 R.RISHS@LYSGIEGLDESPTR.N none none none
Plakophilin-4; Armadillo related protein	Q68FH0	R.TVHMDQFGQQYDIY@ER.M L.RSAVSPDLHITPIY@EGRTY.Y R.NNY@ALNTAATY@AEPYRPVQYR.V R.NNYALNTAATY@AEPYRPVQYR.V Y.ALNTAATY@AEPYR R.SY@EDPYC*DDRHFVHPAST@DYSTQYGLK.S R.SY@EDPYC*DDRHFVHPASTDYSTQYGLK.S	Y371 Y414 Y469,Y477 Y477 Y477 Y1137 Y1137	2354.86 2256.00 2636.51 2556.47 1365.33 3276.05 3195.28	1.87 0.88 1.30 1.26 0.72 1.73 0.96	0.0523 R.TVHMDQFGQQY@DIYER.M 0.1258 L.RSAVSPDLHITPIYEGRT@YY 0.0795 R.NNY@ALNTAAT@AEPYRPVQYR.V 0.0820 R.NNYALNTAAT@AEPYRPVQYR.V 0.0377 Y.ALNTAAT@AEPYR 0.0055 R.S@YEDPYC*DDRHFVHPAST@DYSTQYGLK.S 0.0004 R.S@YEDPYC*DDRHFVHPASTDYSTQYGLK.S
Scavenger receptor class F member 2 precursor	P59222	R.SASSVEGPGALY@AR.V	Y615	1532.14	0.43	none
Tight junction protein ZO-1	P39447	Y.LSAPGSEY@SMY.S R.HEEQPAPAY@EVHNR.Y	Y830 Y1164	1284.76 1756.95	0.77 0.17	0.1283 Y.LSAPGSEYS@MY.S none
Tight junction protein ZO-2	Q9Z0U1	R.JEIAQKHPDIY@AVPIK.A	Y1095	1915.07	0.03	none
CYTOSKELETON: ACTIN-ASSOCIATED						
Actins and actin-related proteins; Regulators of actin assembly						
Actin, alpha skeletal muscle (Beta-actin) (Gamma-actin)	P68134	K.IWHHTFY@NELR.V M.VGMGQKDSY@VGDEAQSKRGIL.T	Y93 Y55	1597.18 2319.05	1.43 0.93	none 0.0078 M.VGMGQKDS@YVGDEAQSKRGIL.T
Cofilin-1, non-muscle isoform	P18760	K.HELQANC*Y@EEVKDR.C K.LTGIKHELQANC*Y@EEVKDR.C L.TGIKHELQANC*Y@EEVKDR.C*TLA	Y139 Y139 Y139	1872.14 2384.74 2645.71	1.35 1.62 1.53	none none none
Src substrate cortactin	Q60598	Y.TSEPVY@ETTEAPGHY.Q	Y466	1762.41 1761.47	1.67 0.73	0.0743 Y.T@SEPVYETTEAPGHY.Q 0.1176 Y.TSEPVYET@TEAPGHY.Q
Vasodilator-stimulated phosphoprotein -- VASP	P70460	F.SRVQIY@HNPTANSFR R.VQIY@HNPTANSFR.V	Y39 Y39	1714.48 1627.93 1627.16	0.67 1.15 0.38	none none none
N-WASP; Neural Wiskott-Aldrich syndrome protein	Q91YD9	K.DRETSKVIY@DFIEK.T K.VIY@DFIEK.T	Y253	1825.26 1106.98	2.36 0.43	none none
WD-repeat protein 1; Actin interacting protein 1 -- AIP1	O88342	K.AHDGGIY@AISWSPDSTHLLSASGDK.T	Y237	2665.90	0.67	0.1286 K.AHDGGIY@AISWSPDSTHLLSASGDK.T
Other actin-associated proteins						
Band 4.1-like protein 2	O70318	N.TLRVDGDNII@VRHSNL.M R.VDGDNIY@VR.H	Y606 Y606	1953.32 1131.00	1.35 0.48	none none
Calponin-2	Q08093	K.CASQSGMTAY@GT@RR.H	Y184	1647.70	-0.07	none
Calponin-3	Q9DAW9	Y.HGEYPDDY@PREY.Q	Y316	1621.87	1.24	0.1644 Y.HGEYPDDY@PREY.Q
LIM and SH3 domain protein 1 -- LASP-1	Q61792	H.HIPTSAPVY@QQPQQQM.T	Y173	2061.91 2062.13	0.95 1.17	none none
Septin-2	P42208	K.QQPTQFINPETPGY@VGFANLPNQVHR.K K.QQPTQFINPETPGY@VGFANLPNQVHR.K.S	Y17 Y17	3033.49 3161.57	1.01 0.98	none 0.1711 K.QQPTQFINPET@PGYVGFANLPNQVHR.K.S
Sickle tail-b (Sickle tail-a)	Q75UV8	R.NVY@YELNDVR.N R.NEGFY@ADPYLYHEGR.M	Y244 Y393	1365.69 1911.53 1911.11	1.07 0.72 0.30	0.1787 R.NVY@YELNDVR.N 0.1910 R.NEGFYADPY@LYHEGR.M none
CYTOSKELETON: MICROTUBULE-ASSOCIATED						
none						
CYTOSKELETON: OTHER						
Vimentin	P20152	R.FANY@IDKVR.F	Y116	1205.86	0.25	none

		R.SLY@SSSPGGAYVTR.S	Y52	1525.08	0.37	0.0791 R.S@LYSSSPGGAYVTR.S
TRAFFICKING/TRANSPORT						
Vesicle transport						
Double C2-like domain containing protein beta	P70169	K.TY@LKPVDVKKSK.H K.TY@LKPVDVKKS*K.H	Y309 Y309	1501.15 1485.35	-0.65 1.55	0.0137 K.T@YLKPDVDKKS.H 0.0102 K.T@YLKPDVDKKS*K.H
Intersectin 2	Q9Z0R6	R.GEPEALY@AAVTK.K	Y 921	1330.16	1.51	none
Low-density lipoprotein receptor precursor	P35951	F.DNPVY@QKTTEDELHIC*RSQDGY.T	Y832	2748.60	0.42	0.1674 F.DNPVYQKT@TEDELHIC*RSQDGY.T
Nucleoporin-like protein RIP	Q8K2K6	K.AGLQTADKY@AALANLDNIFSAGQGGDQSGFG TTGKA	Y327	3583.60	1.91	0.0361 K.AGLQT@ADKYAALANLDNIFSAGQGGDQSGFGTTGKA
Transferrin receptor protein 1 - TFR	Q62351	F.SNLFGEPLSY@TRF.S R.SAFSNLFGEPLSY@TR.F	Y20 Y20	1668.43 1827.76	0.64 1.91	0.0854 F.SNLFGEPLSY@TRF.S 0.1348 R.SAFSNLFGEPLS@YTR.F
Nucleocytoplasmic transport						
None						
Other transport						
Gap junction alpha-1 protein -- Connexin 43	P23242	K.QASEQNWANY@SAEQNR.M	Y312	1976.23 1977.21	0.40 1.38	0.1144 K.QASEQNWANY@AEQNR.M 0.0819 K.QASEQNWANY@AEQNR.M
Lysosomal-associated transmembrane protein 4A	Q60961	K.IPEKEPPPY@LPA.-	Y230	1528.10	0.32	none
Sodium bicarbonate cotransporter 2B homolog [fragment]	Q8BTY2	K.DKDSKEDGRES@PSY@DTPSQR.V K.DKDS*DKEDGRES@DTPSQR.V	Y92 Y92	2574.16 2474.89	2.11 0.84	0.0283 K.DKDSKEDGRES@PS@YDTPSQR.V 0.0490 K.DKDS*DKEDGRES@YDTPSQR.V
Solute carrier family 38, member 2	Q8CFE6	K.SHY@ADVDPENQNFLESNLGK.K K.SHY@ADVDPENQNFLESNLGK.K L.KSHY@ADVDPENQNFL	Y41 Y41 Y41	2471.70 2600.03 1744.38	1.57 1.81 0.65	0.0111 K.S@HYADVPENQNFLESNLGK.K 0.0594 K.S@HYADVPENQNFLESNLGK.K 0.0915 L.KS@HYADVPENQNFL
METABOLIC AND BIOSYNTHETIC ENZYMES						
Glycolytic enzymes						
Alpha enolase (beta-enolase) (gamma enolase)	P17182	R.GNPTVEVDLY@TAK.G R.AAVPSGASTGIY@EALELR.D	Y24 Y43	1486.86 1885.67	0.14 0.73	0.1715 R.GNPTVEVDLY@AK.G 0.0866 R.AAVPSGAST@GIYEALELR.D
Glyceraldehyde-3-phosphate dehydrogenase -- GAPDH	P16858	K.LISWYDNEY@GYSNR.V	Y315	1861.30	1.50	0.1579 K.LISWYDNEYGY@SNR.V
Phosphoglycerate mutase 1	Q9DBJ1	R.FSGWY@DADLSPAGHEEAKR.G	Y25	2217.88	1.89	none
Pyruvate kinase, isozyme M2	P52480	R.EAEAIY@HLQLFEELRR.L	Y389	2168.61	0.52	none
Other metabolic/biosynthetic enzymes						
Bifunctional purine biosynthesis protein PURH	Q9CJW9	R.VC*MVY@DLYPTLPLAVAYAR.A	Y290	2398.26	2.10	0.0520 R.VC*MVYDLY@PTLPLAVAYAR.A
Serine hydroxymethyltransferase, cytosolic	P50431	K.MLSQPLKDSDAEVY@SIKK.E	Y28	2246.33	1.18	0.0277 K.MLSQPLKDSDAEVYS@IIKK.E
TK: Transketolase	P40142	K.NMAEQIIQEIY@SQVQSK.K	Y275	2091.24	2.24	0.1724 K.NMAEQIIQEYS@QVQSK.K
RNA SYNTHESIS AND PROCESSING						
Transcription machinery and regulation						
Polymerase I and transcript release factor	O54724	F.KVMIIY@QDEVKLPKAL.S K.VMIY@QDEVKLPKAL.L F.TPDHVY@ARSKTAVY.K K.SFTPDHVY@AR.S R.KSFTPDHVY@AR.S	Y158 Y158 Y310 Y310 Y310	1856.39 1615.09 1788.15 1373.76 1500.74	1.38 1.26 1.26 2.12 1.00	none none 0.0051 F.TPDHVYARS@KTAVY.K none none
DEAD(DEAH)-box helicases						
ATP-dependent RNA helicase DDX3X	Q62167	R.GRGDY@DGIGGR.G R.GRGDY@DGIGGRGDR.S	Y103 Y103	1202.89 1531.65	0.36 0.97	none none
hnRNPs and snRNPs						
none						
Splicing factors						

none						
Other RNA binding and processing						
Poly(rC)-binding protein 2	Q61990	Y.TIQGQY@AIPQPDCLKHLQLAM.Q	Y232	2447.26	1.01	0.1333 Y.T@IQGQYAIQPDCLKHLQLAM.Q
Putative RNA-binding protein 3	O89086	R.YDSRPGGYGY@GYGR.S Y.DSRPGGYGY@GY.G R.YDSRPGGYGY@GR.S R.YSGGNYRDNY@DN.-	Y124 Y124 Y126 Y151	1648.90 1272.00 1648.92 1517.93	1.21 0.49 1.23 0.36	0.0356 R.YDSRPGGYGY@GR.S 0.1976 Y.DSRPGGY@GYGY.G 0.0531 R.YDSRPGGYGY@GYGR. none
RNA-binding protein 14	Q8C2Q3	R.LPDAHSDY@AR.Y	Y645	1224.48	-0.06	none
PROTEIN SYNTHESIS AND PROCESSING						
tRNA synthetases						
None						
Translation machinery						
40S ribosomal protein S10	P63325	R.IAIY@ELLFK.E	Y12	1190.22	0.56	none
60S acidic ribosomal protein P0	P14869	K.IIQLDDY@PK.C	Y24	1299.35	1.67	none
67 kDa polymerase-associated factor PAF67; Eukaryotic translation initiation factor 3 subunit 6-interacting protein -- Eif3s6ip	Q91YE4	K.GDPQVYEELFSY@AC*PK.F	Y415	1982.78	-0.06	0.1087 K.GDPQVYEELFS@YAC*PK.F
Eukaryotic initiation factor 4A-I	P60843	R.GFKDQIY@DIFQK.L	Y197	1582.11	0.34	none
Elongation factor 1-alpha 1 -- eEF1A-1 (eEF1A-2)	P10126	K.STTTGHLIY@K.C R.EHALLAY@TLGVK.Q	Y29 Y141	1201.02 1395.43	0.42 0.69	none 0.0479 R.EHALLAY@TLGVK.Q
Laminin receptor 1 (ribosomal protein SA)	Q8BNL2	R.ADHQPLTEASY@VNLPTIALC*NTDSPLR.Y	Y139	3077.58	1.12	0.0142 R.ADHQPLTEAS@YVNLPTIALC*NTDSPLR.Y
G1 to phase transition 2 -- GSPT2	Q9CY91	K.Y@LIVLINK.M	Y347	1056.15	0.53	none
Post-translational modifiers						
Probable palmitoyltransferase ZDHHC5	Q8VDZ4	R.EPS@PVRY@DNLSR.H R.LLPTGPPHREPS@PVRY@DNLSR.H	Y533 Y533	1593.84 2562.09	1.12 0.82	none 0.1950 R.LLPTGPPHREPS@PVRY@DNLS@R.H
Probable palmitoyltransferase ZDHHC8	Q5Y5T5	F.SPVLGPRPREPS*PVRY@DNLS R.PREPS*PVRY@DNLSR.T L.RSQDLSLFGDSGVY@DTPSSY.S	Y538 Y538 Y576	2211.91 1748.69 2262.51	0.76 0.82 0.55	none none 0.1555 L.RSQDLSLFGDS@GVYDTPSSY.S
Chaperones and associated proteins						
BAG-family molecular chaperone regulator-3	Q9JLV1	K.THYPAAQQGEY@QPQQPVYHK.I	Y246	2381.14	2.05	0.1751 K.THYPAAQQGEY@QPQQPVY@HK.I
Heat shock 70 kDa protein 4	Q61316	K.LKKEDIY@AVEIVGGATR.I	Y336	1944.08	2.04	none
Heat shock protein HSP 90-beta	P11499	K.SIY@YITGESK.E	Y483	1240.45	-0.13	0.1861 K.SIY@YITGESK.E
PROTEIN DEGRADATION						
Ubiquitin conjugation regulators						
E3 ubiquitin protein ligase CBL	P22682	K.IKPSSSANAIY@SLAARPLMPK.L	Y672	2393.32	1.04	0.0886 K.IKPSSSANAIY@LAARPLMPK.L
E3 ubiquitin-protein ligase CBL-B	Q3TTA7	R.ASQDY@DQLPSSSDGSOAPARPPKPR.P	Y889	2736.24	0.96	0.0634 R.AS@QDYDQLPSSSDGSOAPARPPKPR.P
Probable E3 ubiquitin-protein ligase MGRN1	Q9D074	L.RAVSPAIPSAPLY@EEITY.S	Y389	2057.51	0.47	none
Proteasome components						
Proteasome subunit alpha type 2 -- PSMA2	P49722	K.HIGLVY@SGMGPDYR.V	Y75	1645.35	0.59	0.0713 K.HIGLVYS@GMGPDYR.V
Other proteases and endopeptidases						
ADAM 9 precursor	Q61072	K.ISSQGNLIPARPAPPLY@SSLT.- N.LIPARPAPPLY@SSLT.-	Y841 Y841	2430.83 1844.08	0.55 0.07	0.0069 K.ISSQGNLIPARPAPPLY@SSLT.- 0.1111 N.LIPARPAPPLY@SSLT.-
Prolyl endopeptidase	Q9QUR6	R.MTELY@DYPK.Y	Y71	1239.31	-0.22	0.1597 R.MTELYDY@PK.Y

NUCLEAR PROTEINS						
Histone H2B type 1-B	Q64475	R.KESYSVY@VYK.V	Y41	1346.13	0.48	0.1132 R.KESYS@VYVYK.V
MISCELLANEOUS						
Microfibril-associated glycoprotein 3 precursor	Q922T2	R.IKERPALDAQSGIY@VINPELGR.S	Y277	2520.18	0.84	0.1937 R.IKERPALDAQS@GIYVINPELGR.S
Psychosine receptor	Q61038	R.Y@LAVVYPLK.F	Y115	1145.67	0.04	none
FUNCTION UNKNOWN OR UNCERTAIN						
Named proteins of unknown/uncertain function						
Carnitine deficiency-associated protein CDV3A (CDV3B)	Q920I4	R.KTPQGPEIY@SDTQFPQLQSTAK.H	Y213	2601.76	1.50	0.0207 R.KTPQGPEIYS@DTQFPQLQSTAK.H
Brain-specific angiogenesis inhibitor 1-associated protein 2-like protein 1	Q9DBJ3	K.MIGKDY@DTLSK.Y M.IGKDY@DTLSKY.S	Y274 Y274	1350.97 1383.30	0.34 0.64	none none
Suppression of tumorigenicity 5	Q924W7	K.STLEENAYEDIVGGLPKENPY@EDVDLK.N	Y498	3118.71	1.26	none
Pituitary tumor-transforming gene 1 protein-interacting protein precursor	Q8R143	F.KEQNPY@EKF.- K.EQNPY@EKF.-	Y171 Y171	1262.96 1134.80	0.38 0.32	none none
WW domain binding protein 4	Q3TWW5	K.FGDY@C*K.C K.S*QPCKFGDY@C*K.C	Y15 Y15	870.85 1420.64	1.55 1.00	none none
Unnamed proteins of unknown/uncertain function						
hypothetical protein -- Cdc105	Q9D4K7	K.FNQEM#Y@VTRGIK.G	Y372	1695.48 1696.16	0.63 1.32	0.0596 K.FNQEM#YVT@RGIK.G none
hypothetical HAT dimerisation/BED finger/Bipartite nuclear localization signal/Zinc finger BED-type profile containing protein	Q3UMD3	W.HFFHVDPQY@TW.R	Y145	1558.04	1.37	0.1748 W.HFFHVDPQYT@W.R
hypothetical Intradiol ring-cleavage dioxygenase/WD40-like containing protein	Q3UHA3	R.YNEMTY@IFDLLHQK.H	Y2161	1895.60	0.72	0.0984 R.YNEMT@YIFDLLHQK.H
MKIAA1686 protein [fragment]	Q6ZPK1	K.ERPISMINEASNY@NMASDY@AVHPMSPVGR.T	Y65.Y71	3397.58	1.09	0.0204 K.ERPISMINEAS@NYNMASDY@AVHPMSPVGR.T
PREDICTED: similar to Oligophrenin 1	UPI00005125B7	K.LWLEAMDGKEPIY@TLPAISK.K R.KLWLEAM#DGKEPIY@TLPAISK.K R.KLWLEAMDGKEPIY@TLPAISK.K	Y371 Y371 Y371	2469.33 2612.99 2597.30	1.04 0.61 0.92	0.0264 K.LWLEAMDGKEPIYT@LPAISK.K 0.0171 R.KLWLEAM#DGKEPIYT@LPAISK.K 0.0221 R.KLWLEAMDGKEPIYT@LPAISK.K
PREDICTED: similar to zinc finger CCCH type containing 11A isoform 1	UPI00001C484B	R.IPFS@KTY@SKTEK.V	Y399	1588.48	-0.29	0.0722 R.IPFS@KTY@KTEK.V
Protein KIAA1914	Q5DTU0	K.VAQQLSLVGC*DVLDPDPSDHL@SFR.I	Y413	2992.13	1.71	0.0033 K.VAQQLSLVGC*DVLDPDPSDHL@SFR.I
Similar to RIKEN cDNA 4930527D15 gene [fragment]	Q922B5	K.EKLLLC*HGPS@LSPALSGVRY@NAEK.K	Y39	2910.62	-1.84	0.0491 K.EKLLLC*HGPS@LSPALSGVRY@NAEK.K

END

Table S1. Phosphotyrosine sites from the nontransformed mouse embryo fibroblast population

Protein Name(s) ^a	UniProt # ^a	Peptide ^b	pY site(s) ^b	Comments ⁱ
SIGNALING: PROTEIN KINASES AND PHOSPHATASES				
Tyrosine kinases (nonreceptor)				
Proto-oncogene tyrosine-protein kinase -- Src (Yes, Fyn, Hck)	Q80XU2	R.LIEDNEY@TAR.Q F.LEDYFTSTEPQY@QPGENL.- Y.FTSTEPQY@QPGENL.-	Y418 Y529 Y529	Kinase domain activation loop site; peptide identical in Fyn (P39688) and Yes (Q04736). Equivalent Hck (P08103) peptide (IIEDNEY@TAR) also not distinguishable by MS. C-terminal negative regulatory site. Peptide unique to Src.
Proto-oncogene tyrosine-protein kinase -- Fyn (Yes)	P39688	R.KLDNGGYY@ITTR.A F.LEDYFTATEPQY@QPGENL.- F.TATEPQY@QPGENL.- Y.FTATEPQY@QPGENL.-	Y213 Y527 Y527 Y527	Site in SH2 domain. Peptide identical in Yes (Q04736) C-terminal negative regulatory site; peptide identical in Yes (Q04736)
Fyn-related kinase -- Frk	Q922K9	F.C*PPEAPRSQEPERSHGQY@F.V R.SQEPERSHGQY@FVALFDYQAR.T K.LEDYFETDC*SY@SDTNNFIN.- W.KLEDYFETDC*SY@SDTNNFIN.- W.KLEDYFETDCS@Y@SDTNNFIN.-	Y53 Y53 Y504 Y504	Site in SH3 domain. C-terminal negative regulatory site.
Fer	P70451	K.VQENDGKEPPPVVNY@EEDAR.S F.GMSRQEDGGVY@SSSGL.K	Y402 Y715	Kinase domain activation loop site.
Proto-oncogene tyrosine-protein kinase ABL1	P00520	M.TGDTY@TAHAGAKFPIKW.T R.LMTGDTY@TAHAGAK.F	Y393 Y393	Kinase domain activation loop site.
Activated CDC42 kinase 1 -- ACK	O54967	M.RALPQNDHY@VMQEH.R W.DARPLPPPAY@DDVAQEDDFE F.ASDPKY@ATPQVIQAPGPRAGPC*.I K.VSSTHY@YLLPERPPYLER.Y R.KVSSSTHY@YLLPERPPYLER.Y R.KVSS@THYY@LLPERPPYLER.Y	Y284 Y650 Y842 Y874 Y874 Y875	Kinase domain activation loop site. The alanine residue preceding the Y-site is only found in ACK entry UPI0000D6355E
Activated CDC42 kinase 1 -- ACK, isoforms 2 and 3	O54967-2	H.LGRVKKPTY@DPVSEDPDPLSSDF.K K.KPTY@DPVSEDPDPLSSDFK.R.L L.GRVKKPTY@DPVSEDPDPLSSDF.K R.VKKPTY@DPVSEDPDPLSSDFK.R R.VKKPTY@DPVSEDPDPLSSDFK.R.L	Y518 Y518 Y518 Y518 Y518	These peptides are unique to ACK isoforms 2 (O54967-2) and 3 (O54967-3).
Focal adhesion kinase, isoform 3 -- FAK	P34152-3	M.RTHAVSVSETDDY@AEIIDEEDTY.T R.THAVSVSETDDY@AEIIDEEDTYTMPSTR.D R.Y@MEDSTY@YK.A R.Y@MEDSTY@YKASK.G R.Y@MEDSTY@Y@KASK.G F.GLSRYM#EDSTY@Y.K F.GLSRYMEDSTY@Y.K L.GDFGLSRYM#EDSTY@Y.K L.GDFGLSRYMEDSTY@Y.K R.YM#EDST@YY@KASK.G R.YM#EDSTY@Y@K.A R.YM#EDSTY@Y@KASK.G R.YM#EDSTY@YK.A R.YM#EDSTY@YKASK.G R.YM#EDSTYY@K.A R.YMEDSTY@Y@K.A R.YMEDSTY@Y@KASK.G R.YMEDSTY@YK.A R.YMEDSTY@YKASK.G R.YMEDSTYY@K.A Y.M#EDSTY@Y@KASKGKLPKW.M Y.MEDSTY@Y@KASKGKLPKW.M	Y397 Y397 Y570,Y576 Y570,Y576 Y570,Y576,Y577 Y576 Y576 Y576 Y576 Y577 Y576,Y577 Y576,Y577 Y576 Y576 Y577 Y576,Y577 Y576,Y577 Y576 Y576 Y577 Y576,Y577 Y576,Y577 Y576	Autophosphorylation site. Kinase domain activation loop sites.
Tyrosine-protein kinase JAK1	P52332	K.AIETDKEY@Y@TVKDDR.D	Y1033,Y1034	Kinase domain activation loop sites.
Tyrosine kinases (receptor)				
Discoidin domain receptor 2 precursor -- DDR2	Q62371	R.IFPLRPDY@QEPSR.L Y.DRIFPLRPDY@QEPSRL.I R.NLY@SGDY@YR.I	Y481 Y481 Y735,Y739	Kinase domain activation loop sites.
Ephrin type-A receptor 2 precursor -- EphA2	Q03145	K.SEQLKPLKTY@VDPHTYEDPNQAVLK.F	Y589	

		L.KTY@VDPHTYEDPNQAVL.K L.KTY@VDPHT@YEDPNQAVL.K K.SEQLKPLKT@YVDPHTY@EDPNQAVLK.F K.TYVDPHTY@EDPNQAVLK.F	Y589 Y589 Y595 Y595	
		L.KTYVDPHTY@EDPNQAVL.K L.KTY@VDPHTY@EDPNQAVL.K F.GLSRVLEDDPEATY@TTSGGKIPIRW.T L.SRVLEDDPEATY@TTSGGKIPIRW.T R.VLEDDPEATY@TTSGGK.I R.VLEDDPEATY@TTSGGKIPIRW	Y595 Y589,Y595 Y773 Y773 Y773	Kinase domain activation loop site.
Ephrin type-A receptor 3 precursor -- EphA3 (EphA4, EphA5)	P29319	R.VLEDDPEAAY@TTR.G	Y779	Kinase domain activation loop site. Peptide identical in EphA4 (Q03137) and EphA5 (Q0629).
Ephrin type-A receptor 4 precursor -- EphA4	Q03137	Y.VDPFTY@EDPNQAVREF.A	Y602	
Ephrin type-A receptor 5 precursor -- EphA5	Q06029	R.TY@IDPHTY@EDPNQAVHEFAK.E	Y489,Y495	
Ephrin type-B receptor 2 precursor -- EphB2 (EphB1)	P54763	K.IY@IDPFTY@EDPNEAVR.E Y.IDPFTY@EDPNEAVREF.A	Y604,Y610 Y610	Peptide identical in EphB1. Peptide identical in EphB1-4.
Ephrin type-B receptor 3 precursor -- EphB3 (EphB4)	P54754	K.VY@IDPFTY@EDPNEAVR.E K.VYIDPFTY@EDPNEAVR.E R.FLEDDPSDPTY@TSSLGGKIPIRW	Y603,Y609 Y609 Y787	Peptide identical in EphB4 (Q91YM0) Kinase domain activation loop site.
Eph receptor B4 -- EphB4	Q91YM0	K.HGQYLIGHGTVKY@IDPFTY@EDPNEAVR.E K.HGQYLIGHGT*KVYIDPFTY@EDPNEAVR.E Y.LIGHGTVKY@IDPFTY@EDPNEAVREF.A R.FLEENSS@DPTY@TSSLGGKIPIRW R.FLEENSSDPTY@TSSLGGKIPIRW	Y590,Y596 Y596 Y590,Y596 Y774 Y774	Kinase domain activation loop site.
Hepatocyte growth factor receptor precursor -- MET	P16056	F.GLARDMYDKEY@Y.S F.GLARDMYDKEY@Y.S R.DM#YDKEY@Y@SVHVK.T R.DM#YDKEY@YS@VHVK.T R.DM#YDKEY@YSVHVK.T R.DMYDKEY@Y@SVHVK.T R.DMYDKEY@Y@SVHNKTGAK.L R.DMYDKEY@YSVHVK.T R.DMYDKEY@YSVHNKT^GAK.L R.DMYDKEY@YS^VHVK.T R.DMYDKEY@Y@SVHVK.T R.DMYDKEY@Y@SVHNKT^GAK.L	Y1232 Y1233 Y1232,Y1233 Y1232 Y1232 Y1232,Y1233 Y1232 Y1232,Y1233 Y1232 Y1232 Y1232 Y1233 Y1233	Kinase domain activation loop sites.
Insulin-like growth factor 1 receptor precursor -- IGF1R (InsR)	Q06751	R.DIY@ETDY@Y@RK.G R.DIY@ETDY@YRK.G R.DIYETDY@YRK R.DIYETDY@YRK.G	Y1163, Y1167,Y1168 Y1163, Y1167 Y1167 Y1168	Kinase domain activation loop sites. Peptide identical in Insulin receptor (InsR, KinBase).
Proto-oncogene tyrosine-protein kinase -- MER	Q60805	K.KIY@SGDY@YR.Q K.KIYSGDY@YR.Q	Y744,Y748 Y748	Kinase domain activation loop sites. Peptide identical in Tyro3 (KinBase). Axl family.
Tyrosine-protein kinase receptor UFO precursor -- Axl	Q00993	F.GLSKKIYNGDY@YR K.KIYNGDY@YR.Q K.IYNGDY@YR.Q K.IYNGDYY@R.Q F.GLSKKIYNGDYY@R	Y696 Y696 Y696 Y697 Y697	Kinase domain activation loop sites.
Other protein kinases				
CDC2: Cell division control protein 2 homolog - CDK1 (CDK2)	P11440	K.IEKIGEGT@Y@GVVYK.G K.IEKIGEGTY@GVVYK K.IEKIGEGTY@GVVYK.G K.IEKIGEGT*Y@GVVYK.G K.IGEGT@Y@GVVYK.G K.IGEGTY@GVVYK.G K.IGEGTY@GVVYKGR.H K.IGEGT*Y@GVVYK.G K.IGEGT*Y@GVVYKGR.H Y.IKIEKIGEGTY@GVVYK Y.IKIEKIGEGT*Y@GVVYK -.DYIKIEKIGEGTY@GVVYK K.IGEGTYGVVY@K.G	Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y15 Y19	Peptide identical in CDK2. Peptide identical in CDK2.
Cell division protein kinase 2 -- CDK2	P97377	K.VEKIGEGTY@GVVYK.A	Y15	

Dual-specificity tyrosine-phosphorylation regulated kinase 1A -- DYRK1A (DYRK1B)	Q61214	K.VYNDGYDDDN@DYIVK.N R.KVYNDGYDDDN@DYIVK.N R.KVYNDGYDDDN@DYIVKNGEK.W Y.NDGYDDDN@DYIVKNGEK.W R.IYQY@IQSR.F Y.QY@IQSRFY.R	Y145 Y145 Y145 Y145 Y321 Y321	Site lies just N-terminal to the kinase domain. Kinase domain activation loop site. Identical peptide in DYRK1B (Q9Z188).
Glycogen synthase kinase-3 beta -- GSK-3beta (GSK3alpha)	Q9WV60	K.QLVRGEPNVS@IC*SR.Y K.QLVRGEPNVS@IC*SR.Y.R L.VRGEPNVS@IC*.S L.VRGEPNVS@IC*S@R.Y.R L.VRGEPNVS@IC*SR.Y L.VRGEPNVS@IC*SR.Y.R L.VRGEPNVS@IC*S*RY.Y N.VSY@IC*SR.Y N.VSY@IC*SR.Y.R Q.LVRGEPNVS@IC*SR.Y Q.LVRGEPNVS@IC*SR.Y.R R.GEPNVS@IC*SR.Y R.GEPNVS@IC*SR.Y.R	Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216 Y216	Activation loop site. All peptides identical in GSK3alpha.
Homeodomain-interacting protein kinase 1 -- HIPK1 (HIPK2)	O88904	H.VSKAVC*STY@LQSR.Y K.AVC*STY@LQSR.Y S.KAVC*STY@LQSR.Y	Y352 Y352 Y352	Kinase domain activation loop site. Peptides identical in HIPK2.
Homeodomain-interacting protein kinase 3 -- HIPK3	Q9ERH7	H.VSKTVC*STY@L.Q H.VSKTVC*STY@LQSR.Y K.TVC*STY@LQSR.Y	Y359 Y359 Y359	Kinase domain activation loop site.
Hypothetical Protein kinase-like (PK-like) structure containing protein -- SgK223	Q8CB68	K.C*VGQAAELQPASLLRDPVQPEPIY@AESAK.R K.C*VGQAAELQPASLLRDPVQPEPIY@AESAK.R	Y196 Y196	A protein kinase of the NKf3 family.
Mitogen-activated protein kinase 3 -- ERK1	Q63844	F.GLARIADPEHDHTGFLT@EY@VATR.W F.GLARIADPEHDHTGFLT@EY@VATR.W F.GLARIADPEHDHTGFLT*EY@VATR.W F.GLARIADPEHDHTGFLT*EY@VATRWY.R F.LTEY@VATR.W R.IADPEHDHTGFLT@EY@VATR.W R.IADPEHDHTGFLT@EY@VATR.W R.IADPEHDHTGFLT*EY@VATR.W	Y205 Y205 Y205 Y205 Y205 Y205 Y205 Y205	Kinase domain activation loop site.
Mitogen-activated protein kinase 1 -- ERK2	P63085	F.GLARVADPDHDHTGFLT@EY@VATRW.Y F.GLARVADPDHDHTGFLT@EY@VATRWY.R F.GLARVADPDHDHTGFLT@EY@VATRWY.R F.GLARVADPDHDHTGFLT*EY@VATRW.Y F.GLARVADPDHDHTGFLT*EY@VATRWY.R F.GLARVADPDHDHT*GFLT@EY@VATRW.Y R.VADPDHDHTGFLT@EY@VATR.W R.VADPDHDHTGFLT@EY@VATR.W R.VADPDHDHTGFLT@EY@VATRW.Y R.VADPDHDHTGFLT@EY@VATRW.Y R.VADPDHDHTGFLT*EY@VATR.W R.VADPDHDHTGFLT*EY@VATR.W R.VADPDHDHTGFLT*EY@VATRW.Y	Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185 Y185	Kinase domain activation loop site.
Mitogen-activated protein kinase 7 -- ERK5	Q9WVS8	R.GLC*TSPEHQYFM#TEY@VATR.W R.GLC*TSPEHQYFMTEY@VATR.W	Y221 Y221	Kinase domain activation loop site.
Mitogen-activated protein kinase 8 -- JNK1	Q91Y86	R.TAGTSFMTPY@VVTR.Y	Y185	Kinase domain activation loop site. Peptide identical in JNK3 (Q61831)
Mitogen-activated protein kinase 9 -- JNK2	Q9WTU6	R.TAC*TNFMTPY@VVTR.Y	Y185	
Mitogen-activated protein kinase 14 -- MAP kinase p38 alpha	P47811	F.GLARHTDDEM#TG@VATRW.Y F.GLARHTDDEMTGY@VATRW.Y F.GLARHTDDEMTGY@VATRWY.R L.ARHTDDEMTGY@VATRW.Y L.DFGLARHTDDEMTGY@VATRW.Y R.HTDDEM#TG@VATR.W R.HTDDEMTGY@VATR.W	Y181 Y181 Y181 Y181 Y181 Y181 Y181	Kinase domain activation loop site.

Serine/threonine-protein kinase PAK 2	Q8CIN4	K.LRTIVSIGDPKKYTRY@EK.I	Y252	PKN family.
Serine/threonine-protein kinase -- PFTAIRE-1	O35495	K.LEKLGECS@Y@ATVYK.G	Y146	CDK family.
Serine/threonine-protein kinase -- PCTAIRE-3	Q04899	K.LDKLGEPTY@ATVFK.G	Y132	CDK family.
Serine/threonine-protein kinase -- PRP4	Q61136	C.DFGS@AS@HVADNDITPY@LVSRFY.R F.GSASHVADNDITPY@LVSRFY F.GSASHVADNDITPY@LVSRFY.R H.VADNDITPY@LVSRFY H.VADNDITPY@LVSRFY.R K.LC*DFGSASHVADNDITPY@LVSR.F K.LCDFGSAS@HVADNDITPY@LVSR.F L.C*DFGSASHVADNDITPY@LVSRFY S.HVADNDITPY@LVSRFY.R	Y849 Y849 Y849 Y849 Y849 Y849 Y849 Y849	DYRK family. Kinase domain activation loop site.
RIKEN CDNA C230081A13: hypothetical Protein kinase A anchoring domain containing protein -- SgK269	Q8BX56	K.FNSYNNAGM#PPFPIIHDEPSY@AR.S K.NAIKVPVIVPNAY@DNLAIV@K.S K.NAIKVPVIVPNAY@DNLAIVK.S K.NAIKVPVIVPNAYDNLAIV@K.S K.VPVIINPNAY@DNLAIVK.S	Y613 Y632,Y638 Y632 Y638 Y632	This entry contains the N terminal region of a putative protein serine/threonine kinase called SgK269 (NKF3 family) in the KinBase resource. MKIAA2002 protein [fragment] (Q69Z38) contains the SgK269 kinase domain. There is no overlap between Q8BX56 and Q69Z38. Possible alternative splicing.
Protein phosphatases				
Protein phosphatase 2 regulatory subunit B56 delta isoform	Q99PC9	R.KSELQDQVY@T*IK.A	Y572	
Receptor-type tyrosine-protein phosphatase alpha -- R-PTP-alpha	P18052	K.VVQEYIDAFSDY@ANFK.- Y.IDAFSDY@ANFK.- Y.KVVQEYIDAFSDY@ANF.K Y.KVVQEYIDAFSDY@ANFK.-	Y825 Y825 Y825 Y825	
Tyrosine-protein phosphatase, non-receptor type 11 -- SHP-2	P35235	H.IKIQNTGDY@YDLY.G K.IQNTGDY@YDLYGGEK.F R.EDSARVY@ENVGLMQQR.S R.VY@ENVGLMQQR.S	Y62 Y62 Y584 Y584	
SIGNALING: SMALL G PROTEINS AND REGULATORS				
Glucocorticoid receptor DNA binding factor 1 [fragment] -- p190RhoGAP	Q91YM2	R.NEEENIY@SVPHDSTQGK.I W.MPQDGFDPDSDY@AEPMDAVKPRNEEENIY.S	Y943 Y925	Represses transcription of the glucocorticoid receptor by binding to a cis-acting regulatory sequence. Also known as p190RhoGAP. Phosphorylation of this putative Src site positively controls GAP activity, thus inhibiting Rho.
Breast cancer anti-estrogen resistance protein 3 -- BCAR3	Q9QZK2	F.IFRDPY@LLDPTLEY.V F.IFRDPY@LLDPTLEYVKF.S Y.LLDPTLEY@VKF.S R.KGENFIFRDPY@LLDPTLEY@VK.F R.KGENFIFRDPY@LLDPTLEYVK.F L.RLSEAY@SRVQY.Q	Y103 Y103 Y111 Y103,Y111 Y103 Y206	May act as an adapter protein and couple activated growth factor receptors to signaling molecules that regulate src kinase activity and promote cell migration. Contains 1 Ras-GEF domain and 1 SH2 domain.
ARF GTPase-activating protein -- GIT1	Q68FF6	R.SQSELDDQHDY@DS@VAS@DEDTDQEPLPSAG ATR.N R.SQSELDDQHDY@DS@VAS*DEDTDQEPLPSAGA TR.N F.HSTELEDDAIY@SVHVPAGLYR R.LQPFHS@TELEDDAIY@SVHVPAGLYR.I R.LQPFHSTELEDDAIY@SVHVPAGLYR.I R.LQPFHST*ELEDDAIY@SVHVPAGLYR.I	Y392 Y392 Y554 Y554 Y554 Y554	Possesses ARF-GAP activity. Functions as part of a multi-molecular signaling complex that regulates membrane protrusions and cell migration.
ARF GTPase-activating protein -- GIT2	Q9JLQ2	K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K K.QNSTPESDY@DNTAC*DPEPDDTGSTR.K	Y541 Y541	Possesses ARF-GAP activity. Interacts with G protein-coupled receptor kinases, paxillin, PIX exchange factors. Important in integrin-mediated cell adhesion.
Ras GTPase-activating-like protein -- IQGAP1	Q9JKF1	K.LQQTY@SALNSK.A	Y1510	Binds to activated CDC42 but does not stimulate its GTPase activity. Could serve as an assembly scaffold for the organization of a multimolecular complex.
Ras and Rab interactor 1 -- Rin1	Q921Q7	K.EKPSTDPLY@DTPDTR.G	Y35	Can affect Ras signaling by competing with RAF1, by enhancing signaling from ABL1 and ABL2, and possibly by functioning as a GEF for RAB5A.
Rho-GTPase-activating protein 12	Q8C0D4	M.RATT@PPNQGRPDS@PVY@ANLQEL.K M.RATT@PPNQGRPDS@PVY@ANLQEL.K R.AT@TPPNQGRPDS@PVY@ANLQEL.K R.AT@TPPNQGRPDS*PVY@ANLQEL.K R.ATT@PPNQGRPDS@PVY@ANLQEL.K	Y241 Y241 Y241 Y241 Y241	Contains 1 PH domain, 1 Rho-GAP domain, 1 SH3 domain, 2 WW domains. GTPase activator for the Rho-type GTPase.
SIGNALING: OTHER				
Abl interactor 1 -- Abi-1	Q8CBW3	K.TLEPVKPTVPNDY@MTSPAR.L	Y212	SH3-containing adapter protein.

		R.NTPY@KTLEPVKPTVPNDY@MTSPAR.L R.NTPYKT@LEPVKPTVPNDY@MTSPAR.L Y.KTLEPVKPTVPNDY@MTSPAR.L.G	Y212 Y212 Y212	
Annexin A2	P07356	K.LSLEGDHSTPPSAY@GSVKPYTNFDAER.D K.LSLEGDHSTPPSAY@GSVKPYTNFDAERDALNIET AVK.T C.KLSLEGDHSTPPSAY@GSVKPY.T L.SLEGDHSTPPSAY@GSVKPY.T K.RKY@GKSLYYYIQDQTK.G	Y23 Y23 Y23 Y23 Y310	
Ankyrin repeat and SAM domain-containing protein 1 -- ANKS1	P59672	L.AVRPRIQS@SAPQEEEEHPY@ELL.L L.AVRPRIQS@SAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L L.AVRPRIQSSAPQEEEEHPY@ELL.L	Y471 Y471 Y471 Y471 Y471	Phosphorylated in response to EGF and PDGF. Contains seven ankyrin repeats and two sterile alpha motif domain. Alternative name is Odin.
Calmodulin	P62204	R.VFDKDGNGY@ISAAELR.H F.RVFDKDGNGY@ISAAELR	Y99 Y99	Mediates the control of a large number of enzymes by Ca(2+).
Caveolin-1	P49817	K.YVDSEGHLY@TVPIR.E	Y14	May act as a scaffolding protein within caveolar membranes.
Caveolin-2	Q9WVC3	F.MADDAYS@HHS@GVDY@ADPEKY.V F.MADDAYS@HHS*GVDY@ADPEKY.V F.MADDAYSHHS@GVDY@ADPEKY.V F.MADDAYSHHSGVDY@ADPEKY.V F.MADDAYS*HHS@GVDY@ADPEKY.V Y.SHHSGVDY@ADPEKY.V	Y27 Y27 Y27 Y27 Y27 Y27	
Proto-oncogene c-Crk	Q64010	L.IGNGQEGSHQPQLGGPEPGPY@AQPSVN.T Y.AQPSVNTPLNQLNGPIY@ARVIQ.K K.RVFNAY@DKTALALEVVELVK.V Q.KRVFNAY@DKTALA	Y221 Y239 Y251 Y251	Adaptor protein with SH2-SH3-SH3 domain structure.
Crk-like protein	P47941	Y.VRTLY@DFPGNDAEDLPF.K H.GKHGNRNS@NSY@GIPEPAHAY.A H.GNRNS@NSY@GIPEPAHAY.A H.GNRNSNSY@GIPEPAHAY.A R.NSNSY@GIPEPAHAYAQPQTTTTLPTVASTPGAAL NPLPSTQNGPVFAK.A R.NSNSYGIPEPAHAY@AQPQTTTTLPTVASTPGAAL NPLPSTQNGPVFAK.A	Y132 Y198 Y198 Y198 Y198 Y207	Adaptor protein with an SH2-SH3-SH3 domain structure.
Docking protein 1 (Dok1)	P97465	R.IPPGPSQDSVY@SDPLGSTPAGAGEGVHSK.K K.KPLYWDLY@GHVQQQLLK.T K.LTDSKEDIY@DEPEGLAPAPPR.G K.TKLTDSKEDIY@DEPEGLAPAPPR.G L.KTKLTDSKEDIY@DEPEGLAPAPPRGLY.D L.LKTKLTDSKEDIY@DEPEGLAPAPPRGLY.D R.LKEEGYELPYNPATDDY@AVPPPR.S F.SSDTALY@SQVQKSGTSGAW.D K.GFSSDTALY@SQVQK.S	Y314 Y340 Y361 Y361 Y361 Y361 Y408 Y450 Y450	
Ephrin-B2 precursor (Ephrin-B1)	P52800	R.TADSVFC*PHY@EK.V K.VSGDY@GHPVYIVQEMPPQSPANIYYKV.- K.VSGDYGHPVY@IVQEMPPQSPANIY@YKV.- K.VSGDYGHPVYIVQEM#PPQSPANIY@YKV.- K.VSGDYGHPVYIVQEMPPQSPANIY@YKV.-	Y307 Y314 Y319,Y333 Y333 Y333	Peptide identical in Ephrin-B1 (P52795). Peptide identical in Ephrin-B1 (P52795). Peptide identical in Ephrin-B1 (P52795). Peptide identical in Ephrin-B1 (P52795).
Fibroblast growth factor receptor substrate 2 -- FRS2	Q8C180	K.LVY@ENINGLSIPSASGVR.R R.RPALLNY@ENLPSLPPVWEAR.K	Y306 Y349	Adaptor protein involved in fibroblast growth factor receptor signaling.
Fish protein -- TKS5	O89032	K.VKYEEPEY@DVPAFGDFDSEPEMNEEPSGDR.G	Y557	SH3 and PX domain-containing protein and Src substrate
GRB2-associated binding protein 1 -- Gab1	Q9QYY0	K.HGMNGFFQQMMY@DC*PPSR.L K.DASSQDC*Y@DIPR.T L.RKDASSQDC*Y@DIPRTE.F N.KLRKDASSQDC*Y@DIPRTE.F R.KDASSQDC*Y@DIPR.T	Y242 Y407 Y407 Y407 Y407	A member of the IRS-1-like multisubstrate docking protein family. Contains an N-terminal pleckstrin homology domain and several proline-rich SH3 domain-binding sequences.
Insulin receptor substrate 2 -- IRS-2	P81122	K.SSSNLGADDGY@MPM#TPGAALR.S K.SSSNLGADDGY@MPMTPGAALR.S K.SDDY@MPMSPTSVSAPK.Q	Y649 Y649 Y671	
Insulin receptor substrate-2 (IRS-2) (4PS) homolog [Fragment]	Q3U2I0	R.SYKAPC*SC*SGDDDDQY@VLMSSPVGR.I	Y754	The equivalent peptide in above P81122 entry is RSYKAPCSCSGDNDQYVLMSSPVGR.I.
Kin of IRRE-like protein 1 precursor	Q80W68	K.AIY@SSFKDDVDLQ.K K.AIY@SSFKDDVDLQDLR.C	Y604 Y604	Signaling protein that needs the presence of TEC kinases to fully trans-activate the transcription factor AP-1.

		R.EEYEMKDPTNGY@YNVR.A R.AVLY@ADY@RAPGPTR.F Y.NVRAHEDRPSSRAVLY@ADY.R R.TPY@EAYDPIGK.Y Y.RLGYPOAPPGLERTPY@EAYDPIGKY.A R.TPYEAY@DPIGK.Y	Y637 Y654, Y657 Y654 Y753 Y753 Y756	
myelin protein zero-like 1 -- PZR	Q3TEW6	K.SPSSAGSHQGPVIY@AQLDHSGGHSHGK.I K.INKSESVVY@ADIR.K K.INKSESVVY@ADIRK.D- K.SESVVY@ADIR.K N.KSESVVY@ADIRK.D- H.SGKINKSESVVY@ADIRK.D-	Y242 Y264 Y264 Y264 Y264 Y264	An immunoglobulin superfamily cell surface protein. Contains two tyrosine-based inhibition motifs (ITIMs) responsible for binding of SHP-2.
Non-catalytic region of tyrosine kinase adaptor protein 1 -- NCK1	Q99M51	K.RKPS@VPDTASPADDSFVDPGERLY@DLNM#PAFVK.F K.RKPS@VPDTASPADDSFVDPGERLY@DLNMPAFVK.F K.RKPSVPDTASPADDSFVDPGERLY@DLNMPAFVK.F	Y105 Y105 Y105	Adaptor protein containing SH2 and SH3 domains.
PDZ and LIM domain protein 5	Q8CI51	R.NTEFY@HIPTHSDASK.K	Y251	
Phosphatidylinositol 3-kinase regulatory alpha subunit -- p85alpha	P26450	K.SREYDRLY@EEYTR.T R.DQY@LMWLTQK.G K.LNEWLGNENTEDQY@SLVEDDEDLPHHDEK.T	Y467 Y580 Y607	
Phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 2 -- p85beta	O08908	R.EYDQLY@EEYTR.T	Y458	
Protein LAP2	Q80TH2	R.RTEGDY@LSYR.E R.TEGDY@LSYR.E	Y1097 Y1097	Acts as an adapter for the receptor ERBB2, in epithelia. Also found to interact with ARVCF and delta catenin. Alternative Name: Erbin.
SH2 domain-containing adapter protein B -- Shb	Q6PD21	C.RLDY@C*GGGGGGDPGGGQRAF.T L.RAMC*RLDY@C*GGGGGGDPGGGQRAF.T M.C*RLDY@C*GGGGGGDPGGGQRAF.T R.LDY@C*GGGGGGDPGGGQRAF.T K.C*SAEETGAGQKDKVTIADY@SDPFDAK.S K.DKVTIADY@SDPFDAK.S K.VTIADY@SDPFDAK.S L.LNKC*SAEETGAGQKDKVTIADY@SDPF.D F.DAKSDLKSKAGKGESAGY@M#EPY.E F.DAKSDLKSKAGKGESAGY@MEPY.E K.AGKGESAGY@M#EPYEAQR.I K.AGKGESAGY@MEPYEAQR.I K.GESAGY@MEPYEAQR.I K.SKAGKGESAGY@MEPYEAQR.I L.KSKAGKGESAGY@MEPY.E K.LPQDDDRPADEY@DQPWEWNR.V L.RLRESKLPQDDDRPADEY@DQPWE R.ESKLPQDDDRPADEY@DQPWEWNR.V	Y113 Y113 Y113 Y113 Y240 Y240 Y240 Y240 Y262 Y262 Y262 Y262 Y262 Y262 Y262 Y330 Y330 Y330	Adapter protein which regulates several signal transduction cascades by linking activated receptors to downstream signaling components.
SHC transforming protein 1 -- SHC1	P98083	K.QM#LPPPPC*PGRELFDDPSY@VNIQNLDK.A R.ELFDDPSY@VNIQNLDK.A K.QMLPPPRCPGRELFDDPSY@VNIQNLDK.A R.KQMLPPPRCPGRELFDDPSY@VNIQNLDK.A R.MAGFDGSAWDEEEEEPPDHQY@Y@NDFPGKEP PLGGVDMR.L R.MAGFDGSAWDEEEEEPPDHQY@Y@NDFPGKEP LGGVDMR.L	Y423 Y423 Y423 Y423 Y349, Y350 Y350	Adaptor protein containing a SH2 and PID domain. Couples activated growth factor receptors to a signaling pathways that regulate proliferation.
SH2-containing inositol 5-phosphatase 2 -- SHIP2	Q9JLL7	K.NSFNNPAY@YVLEGVPHQLLPLEPPSLAR.A	Y987	
Tyrosine-protein phosphatase non-receptor type substrate 1 - SHPS1	P97797	Y.ASIETGKVPREDTLTY@ADLDMVHL.S	Y481	Immunoglobulin-like cell surface receptor for CD47. Acts as docking protein and induces translocation of PTPN6, PTPN11 and other binding partners from the cytosol to the plasma membrane.
Signal transducer and activator of transcription 3 -- STAT3	P42227	K.YC*RPESQEHPEADPGSAAPY@LK.T	Y705	Transcription factor of the STAT family. Two alternatively spliced isoforms have been described.
STAT3 splice isoform Del-701	P42227-3	K.YC*RPESQEHPEADPGSAAPY@LK.T	Y704	This peptide unique to splice isoform Del-701.
Signal transducer and activator of transcription 5B -- STAT5B	P42232	K.AADGY@VKPQIK.Q	Y699	
ADHESION: CELL/ECM				
CRK-associated substrate -- p130cas	Q61140	K.TQQGLY@QAPGNPQFQSPPAK.Q R.VGGYVYEAQTEQDEY@DTPR.H Y.VYEAQTEQDEY@DTPRHLL R.HLLAPGPQDIY@DVPPVR.G	Y132 Y238 Y238 Y253	Substrate domain YxxP site 2. Substrate domain YxxP site 6. Substrate domain YxxP site 7.

		L.LAPGPDQIY@DVPPVRGLLPNQY.G R.GLLPNQYQGEVY@DTPPMVAK.G	Y253 Y271	Substrate domain YxxP site 8.
		K.GPNGRDPLLDVY@DVPPSVEK.G K.GLLSSSHSVY@DVPPSVSK.D K.DVPDGPLLREETY@DVPPAFAPK.P R.RPGGTLY@DVPR.E R.ERVLPEVADGGSVDDGVY@AVPPPAER.E R.VLPPEVADGGSVDDGVY@AVPPPAER.E L.SRQLQKMEDVY@QTL.V	Y291 Y310 Y331 Y391 Y414 Y414 Y556	Substrate domain YxxP site 9. Substrate domain YxxP site 10. Substrate domain YxxP site 11. Substrate domain YxxP site 14. Substrate domain YxxP site 15. Site is C-terminal to the substrate domain.
Enhancer of filamentation 1 -- HEF1	O35177	R.TGHGYVY@EYPSR.Y K.ANPEERDGVY@DVPLHNPADAK.G	Y165 Y344	p130Cas - related protein. Alternative Names: CASL, NEDD9
Integrin beta-1 precursor	P09055	K.WDTGENPIY@K.S	Y783	The first NPXY site in the cytoplasmic tail
Lipoma-preferred partner homolog - LPP	Q8BFW7	H.MAGPSSGQIY@GPGPRGY.N M.AGPSSGQIY@GPGPRGY.N Y.MAGPSSGQIY@GPGPRGY.N R.GYNNQVPVSGQC*PPPPTC*VGTDY@AYIPPSG HPPESGYGTSNQGR.Y R.YYEPY@YAAGPSYGGR.S R.YYEPY@AAGPSYGGR.S	Y245 Y245 Y245 Y276 Y301 Y302	A LIM domain-containing that may function in focal adhesions . Interacts with alpha-actinin. J Cell Sci. 116:1359.
Paxillin	Q8VI36	F.LSEPPY@SYPTGNHTY.Q L.SEPPY@SYPTGNHTY.Q S.KRPVFLSEPPY@SYPTGNHTY.Q R.YAHQQPPS@PLPVY@SSSAK.N R.YAHQQPPS@PLPVY@SSSAK.N R.YAHQQPPS@PLPVY@SSSAK.N R.AGEEHVY@SFPNK.Q R.AGEEHVY@SFPNKQK.S	Y31 Y31 Y31 Y88 Y88 Y88 Y118 Y118	
Pleckstrin homology domain containing family C member 1	Q8CIB5	L.LIMPSSGSIY@SSPGLY.S	Y179	Participates in the connection between ECM adhesion sites and the actin cytoskeleton and also in the orchestration of actin assembly and cell shape modulation. Belongs to the kindlin family. Contains 1 FERM domain and 1 PH domain.
Syndecan-4 precursor	O35988	K.KAPTEFY@A.- Y.KKAPTEFY@A.-	Y197 Y197	A heparan sulfate proteoglycan type I membrane protein that promotes cell spreading in a beta(1) integrin-dependent fashion through PKC-alpha and Rho.
Talin 1	P26039	K.TM#QFEPSTMVY@DAC*R.M K.TMQFEPSTMVY@DAC*R.M M.QFEPSTMVY@DAC*RM.I F.LSDDDPKGIWLEAGKALDY@Y.M K.ALDY@YM#LR.N K.ALDY@YMLR.N W.LEAGKALDY@Y.M R.IGITNHDEY@SLVR.E K.LLGEIAQGNENY@AGIAAR.D	Y26 Y26 Y26 Y70 Y70 Y70 Y70 Y127 Y1116	
Tensin	Q9DBT6	R.HAAY@GGY@STPEDR.R R.HAAY@GGYSTPEDR.R R.HAAYGGY@STPEDR.R R.HAAYGGY@STPEDRRPT^LSR.Q	Y213,Y216 Y213 Y216 Y216	Localizes to focal adhesions. Crosslinks actin filaments and contains SH2 domain.
Tensin 2	Q8CJ95	H.TRGPLDGSPY@AQVQ.R L.AHTRGPLDGSPY@AQVQ.R R.GPLDGSPY@AQVQ.R.V K.VGEEGHEGC*SY@AVC*SEGR.Y	Y460 Y460 Y460 Y747	
Tensin 3	Q5SSZ5	L.HTQGPVDGSLY@AKVR.K R.KPSAPTPVQAYGQSNY@STQTWVR.Q	Y354 Y584	
Vinculin	Q64727	R.ILLRNPNGQAAY@EHFETMK.N K.SFLDSGY@R.I	Y691 Y821	
ADHESION: CELL/CELL				
Catenin delta-1 -- p120 catenin	P30999	K.LNGPQDHNHLLY@STIPR.M R.HYEDGYPGGSDNY@GSLSR.V R.HYEDGYPGGSDNY@GS^LSR.V R.FHPEPYGLEDDQRSMGY@DDL DY@GMMSDYGT AR.R K.SDNNY@STLNER.G	Y96 Y228 Y228 Y291,Y296 Y877	
Ctnnd1 protein -- p120 catenin, isoform	Q80XQ4	K.SLDNNY@STLNER.G	Y904	Peptide is unique to this isoform.

Discs large homolog 3	P70175	R.RDNEVDGQDY@HFVSR.E	Y705	MAGUK family. Contains 1 guanylate kinase-like domain, 3 PDZ (DHR) domains and 1 SH3 domain.
Fath protein [fragment]	Q497H5	K.NIY@SDIPPQVPRVIPSITYSIPSDSR.N	Y952	Related to Fat cadherins implicated in actin dynamics at both cell-cell contacts and leading edges.
Partitioning-defective 3 homolog -- PARD3	Q99NH2	R.ISHSLY@SGIEGLDESPTR.N R.RIS@HSLY@SGIEGLDESPTR.N R.RISHS@LY@SGIEGLDESPTR.N R.RISHSLY@SGIEGLDESPTR.N R.ERDY@AEIQDFHR.T R.EGHLMDTLY@AQVK.K R.KNASSISQDSWEQNY@APGEGFQSAK.E	Y719 Y719 Y719 Y1076 Y1123 Y1238	Adapter protein involved in asymmetrical cell division and cell polarization processes. Plays a role in the formation of epithelial tight junctions.
Plakophilin-4; Armadillo related protein	Q68FH0	R.TVHMDQFGQQYDIY@ER.M L.RSAVSPDLHITPIY@EGRTY.Y R.NNY@ALNTAATY@AEPYRPVQYR.V R.NNYALNTAATY@AEPYRPVQYR.V Y.ALNTAATY@AEPY.R R.SY@EDPYC*DDRVHFPAST@DYSTQYGLK.S R.SY@EDPYC*DDRVHFPASTDYSTQYGLK.S	Y371 Y414 Y469,Y477 Y477 Y477 Y1137 Y1137	Belongs to the beta-catenin family. May play a role in junctional plaques.
Scavenger receptor class F member 2 precursor	P59222	R.SASSVEGPGSALY@AR.V	Y615	Probable adhesion protein, which mediates homophilic and heterophilic interactions.
Tight junction protein ZO-1	P39447	Y.LSAPGSEY@SMY.S R.HEEQPAPAY@EVHNR.Y	Y830 Y1164	Belongs to the MAGUK family. Contains 1 guanylate kinase-like domain, 3 PDZ (DHR) domains, 1 SH3 domain.
Tight junction protein ZO-2	Q9Z0U1	R.IEIAQKHPDIY@AVPIK.A	Y1095	
CYTOSKELETON: ACTIN-ASSOCIATED				
Actins and actin-related proteins; Regulators of actin assembly				
Actin, alpha skeletal muscle (Beta-actin) (Gamma-actin)	P68134	K.IWHHTFY@NELR.V M.VMGMGQKDSY@VGDQAQSKRGIL.T	Y93 Y55	Peptide conserved in alpha cardiac-actin (P68033); ; Beta-actin (P70514); Gamma-actin (P63260) Peptide conserved in alpha-cardiac actin (P68033); gamma-enteric smooth muscle actin (P63268); Beta-actin (P70514); Gamma-actin (P63260)
Cofilin-1, non-muscle isoform	P18760	K.HELQANC*Y@EEVKDR.C K.LTGIKHELQANC*Y@EEVKDR.C L.TGIKHELQANC*Y@EEVKDRC*TLA	Y139 Y139 Y139	This peptide only in Cofilin-1.
Src substrate cortactin	Q60598	Y.TSEPVY@ETTEAPGHY.Q	Y466	
Vasodilator-stimulated phosphoprotein -- VASP	P70460	F.SRVQIY@HNPTANSF.R R.VQIY@HNPTANSF.R	Y39 Y39	Actin- and profilin-binding microfilament-associated protein.
N-WASP; Neural Wiskott-Aldrich syndrome protein	Q91YD9	K.DRETSKVIY@DFIEK.T K.VIY@DFIEK.T	Y253	Regulates actin polymerization by stimulating the actin-nucleating activity of the Arp2/3 complex.
WD-repeat protein 1; Actin interacting protein 1 -- AIP1	O88342	K.AHDGGIY@AISWSPDSTHLLSASGDK.T	Y237	Induces disassembly of actin filaments in conjunction with ADF/cofilin family proteins. Contains 11 WD repeats.
Other actin-associated proteins				
Band 4.1-like protein 2	O70318	N.TLRVDGDNIY@VRHSNL.M R.VDGDNIY@VR.H	Y606 Y606	
Calponin-2	Q08093	K.CASQSGMTAY@GT@RR.H	Y184	Thin filament-associated protein implicated in regulation of smooth muscle contraction. Capable of binding to actin, calmodulin, troponin C and tropomyosin.
Calponin-3	Q9DAW9	Y.HGEYPPDY@PREY.Q	Y316	
LIM and SH3 domain protein 1 -- LASP-1	Q61792	H.HIPTSAPVY@QQPQQQM.T	Y173	Characterized by a LIM motif and SH3 domain. Functions as an actin-binding protein, possibly in cytoskeletal organization.
Septin-2	P42208	K.QQPTQFINPETPGY@VGFANLPNQVHR.K K.QQPTQFINPETPGY@VGFANLPNQVHRK.S	Y17 Y17	Involved in cytokinesis. Alternative Name: NEDD-5.
Sickle tail-b (Sickle tail-a)	Q75UV8	R.NVY@YELNDVR.N R.NEGFY@ADPYLYHEGR.M	Y244 Y393	Both peptides identical in Sickle tail-a isoform (Q75UV9). Related to p130Cas-binding protein (p140Cap).
CYTOSKELETON: MICROTUBULE-ASSOCIATED				
none				
CYTOSKELETON: OTHER				
Vimentin	P20152	R.FANY@IDKVR.F	Y116	Vimentins are class-III intermediate filaments found in various non-epithelial cells, especially mesenchymal cells.

R.SLY@SSSPGGAYVTR.S

Y52

TRAFFICKING/TRANSPORT**Vesicle transport**

Double C2-like domain containing protein beta	P70169	K.TY@LKPVDVKKSK.H K.TY@LKPVDVKKS*K.H	Y309 Y309	May be involved in constitutive membrane trafficking including dynein-dependent intracellular vesicle transport. Binds calcium and phospholipids. Interacts with cytoplasmic dynein light chain.
Intersectin 2	Q920R6	R.GEPEALY@AAVTK.K	Y 921	Adapter protein that may provide indirect link between the endocytic membrane traffic and the actin assembly machinery. May regulate the formation of clathrin-coated vesicles.
Low-density lipoprotein receptor precursor	P35951	F.DNPVY@QKTTEDELHIC*RSQDGY.T	Y832	Binds LDL, the major cholesterol-carrying lipoprotein of plasma, and transports it into cells by endocytosis.
Nucleoporin-like protein RIP	Q8K2K6	K.AGLQTADKY@AALANLDNIFSAGQGGDQSGFG TTGK.A	Y327	Required for vesicle docking or fusion during axosome biogenesis. May play a role in RNA trafficking or localization.
Transferrin receptor protein 1 - TFR	Q62351	F.SNLFGGELSY@TRF.S R.SAFSNLFGGELSY@TR.F	Y20 Y20	Regulates the cellular uptake of iron via receptor-mediated endocytosis of ligand-occupied receptors into specialized endosomes.

Nucleocytoplasmic transport

None

Other transport

Gap junction alpha-1 protein -- Connexin 43	P23242	K.QASEQNWANY@SAEQNR.M	Y312	Hexamers of connexin-43 form connexons, which aggregate together to form gap junctions, through which materials of low MW diffuse between cells.
Lysosomal-associated transmembrane protein 4A	Q60961	K.IPEKEPPPY@LPA.-	Y230	May function in the transport of nucleosides and/or nucleoside derivatives between the cytosol and the lumen of an intracellular membrane-bound compartment.
Sodium bicarbonate cotransporter 2B homolog [fragment]	Q8BTY2	K.DKSDKEDGRES@PSY@DTPSQR.V K.DKDS*DKEDGRES@DTPSQR.V	Y92 Y92	
Solute carrier family 38, member 2	Q8CFE6	K.SHY@ADVDPENQNFLESNLGK.K K.SHY@ADVDPENQNFLESNLGKK.K L.KSHY@ADVDPENQNFL	Y41 Y41 Y41	

METABOLIC AND BIOSYNTHETIC ENZYMES**Glycolytic enzymes**

Alpha enolase (beta-enolase) (gamma enolase)	P17182	R.GNPTVEVDLY@TAK.G R.AAVPSGASTGIY@EALELR.D	Y24 Y43	Catalyzes the first common step of glycolysis and gluconeogenesis. Mammalian enolase is composed of 3 isozyme subunits, alpha, beta and gamma, which can form homodimers or heterodimers. This peptide also identical in gamma enolase (P17183). Identical peptide in beta enolase (P21550); gamma enolase (P17183).
Glyceraldehyde-3-phosphate dehydrogenase -- GAPDH	P16858	K.LISWYDNEY@GYSNR.V	Y315	Second phase of glycolysis; first step.
Phosphoglycerate mutase 1	Q9DBJ1	R.FSGWY@DADLSPAGHEEAKR.G	Y25	Functions in second phase of glycolysis.
Pyruvate kinase, isozyme M2	P52480	R.EAEAIY@HLQLFEELRR.L	Y389	Second phase of aerobic glycolysis; final step.

Other metabolic/biosynthetic enzymes

Bifunctional purine biosynthesis protein PURH	Q9CWJ9	R.VC*MVY@DLYPTLPLAVAYAR.A	Y290	Involved in de novo purine biosynthesis.
Serine hydroxymethyltransferase, cytosolic	P50431	K.MLSQPKDSDAEVY@SIKK.E	Y28	Interconversion of serine and glycine. Key enzyme in the biosynthesis of purines, lipids, hormones and other components.
TK: Transketolase	P40142	K.NMAEQIIQEIY@SQVQSK.K	Y275	Pentose phosphate pathway; non-oxidative stage.

RNA SYNTHESIS AND PROCESSING**Transcription machinery and regulation**

Polymerase I and transcript release factor	O54724	F.KVMIIY@QDEVKLPKAL.S K.VMIY@QDEVKLPKAL.L F.TPDHVY@ARSKTAVY.K K.SFTPDHVY@AR.S R.KSFTPDHVY@AR.S	Y158 Y158 Y310 Y310 Y310	Required for dissociation of the ternary transcription complex. Also found at the cell membrane and the surface of caveolae, suggesting alternative functions.
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DEAD(DEAH)-box helicases

ATP-dependent RNA helicase DDX3X	Q62167	R.GRGDY@DGIGGR.G R.GRGDY@DGIGGRGDR.S	Y103 Y103	Putative ATP-dependent RNA helicase.
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hnRNPs and snRNPs

none

Splicing factors

none				
Other RNA binding and processing				
Poly(rC)-binding protein 2	Q61990	Y.TIQGQY@AIPQPDCLKHLQAM.Q	Y232	Single-stranded nucleic acid binding protein that binds preferentially to oligo dC. RNA binding protein.
Putative RNA-binding protein 3	O89086	R.YDSRPGGYGY@GYGR.S Y.DSRPGGYGY@GY.G R.YDSRPGGYGY@GR.S R.YSGGNYRDNY@DN.-	Y124 Y124 Y126 Y151	
RNA-binding protein 14	Q8C2Q3	R.LPDAHSDY@AR.Y	Y645	
PROTEIN SYNTHESIS AND PROCESSING				
tRNA synthetases				
None				
Translation machinery				
40S ribosomal protein S10	P63325	R.IAIY@ELLFK.E	Y12	
60S acidic ribosomal protein P0	P14869	K.IIQLDDY@PK.C	Y24	
67 kDa polymerase-associated factor PAF67; Eukaryotic translation initiation factor 3 subunit 6-interacting protein -- Eif3s6ip	Q91YE4	K.GDPQVYEELFSY@AC*PK.F	Y415	Associated with the initiation-competent form of RNA polymerase I. The association of PAF67 with the 'core' enzyme endows Pol I with the capability to assemble into a productive transcription initiation complex at the rDNA promoter.
Eukaryotic initiation factor 4A-I	P60843	R.GFKDQIY@DIFQK.L	Y197	
Elongation factor 1-alpha 1 -- eEF1A-1 (eEF1A-2)	P10126	K.STTTGHLIY@K.C R.EHALLAY@TLGVK.Q	Y29 Y141	Promotes the GTP-dependent binding of aminoacyl-tRNA to the A-site of ribosomes during protein biosynthesis. Both peptides identical in eEF1A-2 (P62631; P27706).
Laminin receptor 1 (ribosomal protein SA)	Q8BNL2	R.ADHQPLTEASY@VNLPTIALC*NTDSPLR.Y	Y139	Belongs to the ribosomal protein S2P family. GO:0005719,C:nuclear euchromatin,IDA. Protein Type: Receptor, misc., Adhesion
G1 to phase transition 2 -- GSPT2	Q9CY91	K.Y@LIVLINK.M	Y347	GSPT2 is closely related to GSPT1. GSPT1 is a positive regulator of translational accuracy and, in a binary complex with eRF1 functions as a polypeptide chain release factor.
Post-translational modifiers				
Probable palmitoyltransferase ZDHC5	Q8VDZ4	R.EPS@PVRY@DNLSR.H R.LLPTGPPHREPS@PVRY@DNLSR.H	Y533 Y533	Peptide identical in ZDHC8 (Q5Y5T5)
Probable palmitoyltransferase ZDHC8	Q5Y5T5	F.SPVLGPRPREPS*PVRY@DNLS R.PREPS*PVRY@DNLSR.T L.RSQDLSLFGDSGVY@DTPSSY.S	Y538 Y538 Y576	Putative palmitoyltransferase involved in glutamatergic transmission.
Chaperones and associated proteins				
BAG-family molecular chaperone regulator-3	Q9JLV1	K.THYPAAQQGEY@QPQQPVYHK.I	Y246	Inhibits the chaperone activity of HSP70/HSC70 by promoting substrate release.
Heat shock 70 kDa protein 4	Q61316	K.LKKEDIY@AVEIVGGATR.I	Y336	
Heat shock protein HSP 90-beta	P11499	K.SIY@YITGESK.E	Y483	
PROTEIN DEGRADATION				
Ubiquitin conjugation regulators				
E3 ubiquitin protein ligase CBL	P22682	K.IKPSSSANAIY@SLAARPLMPK.L	Y672	Acts as an E3 ubiquitin-protein ligase.
E3 ubiquitin-protein ligase CBL-B	Q3TTA7	R.ASQDY@DQLPSSSDGSOAPARPPKPR.P	Y889	
Probable E3 ubiquitin-protein ligase MGRN1	Q9D074	L.RAVSPAIPSAPLY@EEITY.S	Y389	Mahogunin ring finger protein 1
Proteasome components				
Proteasome subunit alpha type 2 -- PSMA2	P49722	K.HIGLVY@SGMGPDYR.V	Y75	Proteasome component C3. PSMA2 may have a potential regulatory effect on another component(s) of the proteasome complex through its tyrosine phosphorylation.
Other proteases and endopeptidases				
ADAM 9 precursor	Q61072	K.ISSQGNLIPARPAPPLY@SSLT.- N.LIPARPAPPLY@SSLT.-	Y841 Y841	A disintegrin and metalloproteinase domain 9
Prolyl endopeptidase	Q9QUR6	R.MTELY@DYPK.Y	Y71	Peptidase S9A family. Cleaves peptide bonds on the C-terminal side of prolyl residues within peptides that are up to ~30 amino acids long.

NUCLEAR PROTEINS				
Histone H2B type 1-B	Q64475	R.KESYSVY@VYK.V	Y41	
MISCELLANEOUS				
Microfibril-associated glycoprotein 3 precursor	Q922T2	R.IKERPALDAQSGIY@VINPELGR.S	Y277	Microfibril-associated glycoprotein 3. Protein Type: Extracellular matrix
Psychosine receptor	Q61038	R.Y@LAVVYPLK.F	Y115	Receptor for the glycosphingolipid psychosine (PSY) and several related glycosphingolipids.
FUNCTION UNKNOWN OR UNCERTAIN				
Named proteins of unknown/uncertain function				
Carnitine deficiency-associated protein CDV3A (CDV3B)	Q920I4	R.KTPQGPEIY@SDTQFPSLQSTAK.H	Y213	Peptide identical in Carnitine deficiency-associated protein CDV3B (Q920C7)
Brain-specific angiogenesis inhibitor 1-associated protein 2-like protein 1	Q9DBJ3	K.MIGKDY@DTLSK.Y M.IGKDY@DTLSKY.S	Y274 Y274	May function as adapter protein. Contains 1 IMD (IRSp53/MIM homology) domain and 1 SH3 domain.
Suppression of tumorigenicity 5	Q924W7	K.STLEENAYEDIVGGLPKENPY@EDVDLK.N	Y498	
Pituitary tumor-transforming gene 1 protein-interacting protein precursor	Q8R143	F.KEQNPY@EKF.- K.EQNPY@EKF.-	Y171 Y171	May facilitate PTTG1 nuclear translocation.
WW domain binding protein 4	Q3TWW5	K.FGDY@C*K.C K.S*QPKKFGDY@C*K.C	Y15 Y15	
Unnamed proteins of unknown/uncertain function				
hypothetical protein -- Cdc105	Q9D4K7	K.FNQEM#Y@VTRGIK.G	Y372	Coiled-coil domain containing 105
hypothetical HAT dimerisation/BED finger/Bipartite nuclear localization signal/Zinc finger BED-type profile containing protein	Q3UMD3	W.HFFHVDPQY@TW.R	Y145	
hypothetical Intradiol ring-cleavage dioxygenase/WD40-like containing protein	Q3UHA3	R.YNEMTY@IFDLLHQK.H	Y2161	
MKIAA1686 protein [fragment]	Q6ZPK1	K.ERPISMINEASNY@NMASDY@AVHPMSPVGR.T	Y65,Y71	Contains 1 PH domain.
PREDICTED: similar to Oligophrenin 1	UPI0000512 5B7	K.LWLEAMDGKEPIY@TLPAlSK.K R.KLWLEAM#DGKEPIY@TLPAlSK.K R.KLWLEAMDGKEPIY@TLPAlSK.K	Y371 Y371 Y371	
PREDICTED: similar to zinc finger CCCH type containing 11A isoform 1	UPI00001C4 84B	R.IPFS@KTY@SKTEK.V	Y399	
Protein KIAA1914	Q5DTU0	K.VAQQLSLVGC*DVLDPDPSDHL@SFR.I	Y413	Contains 2 PH domains.
Similar to RIKEN cDNA 4930527D15 gene [fragment]	Q922B5	K.EKLLLC*HGPS@LSPALSGVRY@NAEK.K	Y39	

END

Footnotes:

a The protein name is typically taken from the UniProt entry. Additional proteins (in parentheses) indicates ambiguity due to peptides being found in multiple related proteins. If a peptide is not unambiguously identified, additional relevant information is given in the Comments column. The UniProt ID #, indicates the UniProt Knowledgebase ID number representing the latest annotation update for the protein at the time of analysis.

b Peptides are shown in single letter amino acid code, with periods indicating cleavage sites. Y@, phosphotyrosine; S@, phosphoserine; T@, phosphothreonine; S⁺ and T⁺, phosphoserine and phosphothreonine detected through neutral loss of phosphoric acid; C*, carboxymethylated cysteine; M#, oxidated methionine. In the pY site column, the position of the phosphotyrosine site is based on the sequence of the given UniProt entry.

c The Novel column indicates whether or not the phosphotyrosine site has been previously recognized in either UniProt or PhosphoSite entries. N with an asterisk indicates that the site is represented in PhosphoSite as an unpublished site.

d The Com/Uncom column indicates whether the site was also found in the other cell population analyzed in this study.

e The "Rounds found" column indicates which of the 18 independent rounds of analysis the peptide was identified. Rounds 1-5, trypsin cleavage with affinity purification using antibody pY100. 6-10, trypsin cleavage with affinity purification using antibody 4G10. 11-14, chymotrypsin cleavage with affinity purification using pY100. 15-18, chymotrypsin cleavage with affinity purification using 4G10.

f "Total IDs" indicates number of independent spectra (combined from the indicated rounds) for which the indicated peptide was top-scoring. "Site count" indicates total number of times the indicated site was identified from all peptides.

g Cross-correlation score (xcorr) and charge (z) of the peptide. For peptides identified multiple times, the highest xcorr value is listed.

h Experimental mass of a singly charged peptide (MH) and the difference of the experimental from the calculated mass (dM), for the peptide with the highest xcorr value.

i If the delta correlation (dCn) score for the second-ranking peptide is < 0.2, these are shown.

j Short notes of interest.