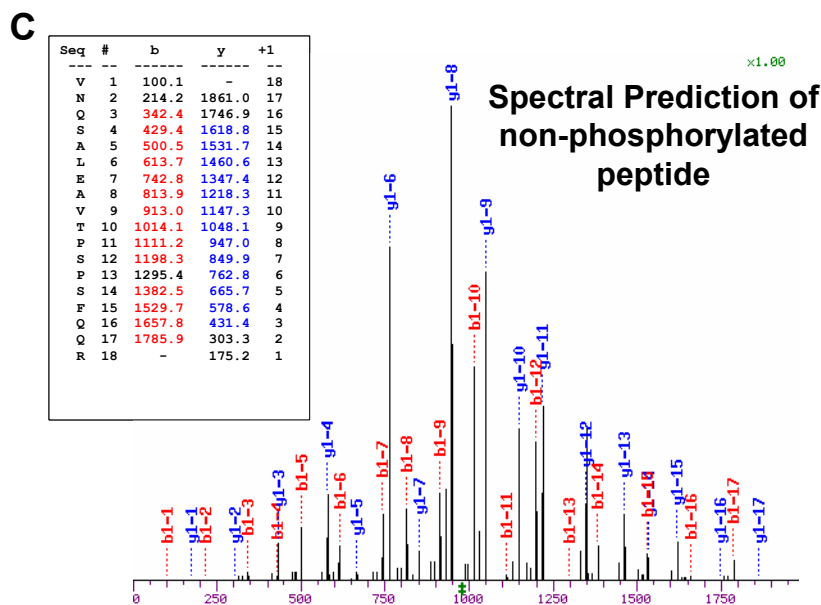
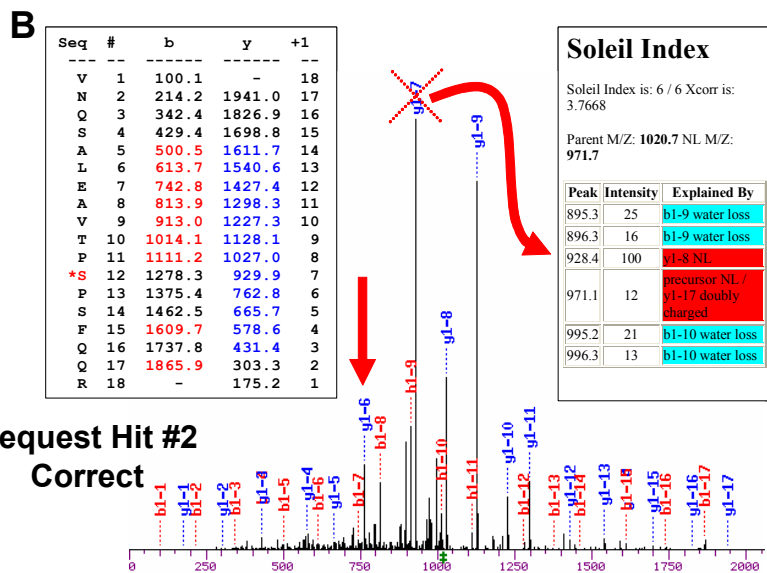
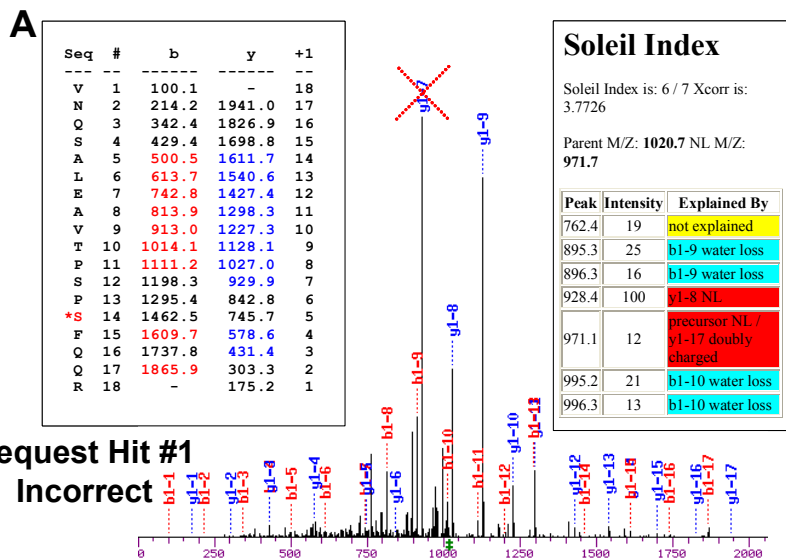


Supplementary Table 1. **Phosphoproteomic planning for studies involving mammalian cells.** Roughly 10-100fmol of most peptides is required for detection and fragmentation analysis in standard mass spectrometers. For a protein of 50kDa, 1fmol of protein is approximately 50pg. To achieve 10-100fmol (and thus 10-100fmol of an internal peptide) requires 0.5-5ng of the same 50kDa protein. Early studies have calculated the number and relative abundance of mRNA molecules in mammalian cells. The numbers reproduced here are averaged from values obtained from liver, kidney and brain mRNA (Hastie, N.D. and Bishop, J.O., 1976, *Cell* 9:761-764). Importantly, rare mRNAs represent as much as 95% of unique message expressed per cell. Whereas the relative abundance of any one protein is not always proportional to message levels, the wide range in protein expression levels appears to be consistent with that found at the mRNA level (Greenbaum D. et al, 2002, *Bioinformatics* 18:585-96; Greenbaum D. et al, 2003, *Genome Biology* 9:117). Thus, roughly defining proteins to be of equal size, and assuming no losses in yield and a relatively high phosphorylation stoichiometry of 10%, phosphoproteomic studies will be most successful as starting material approaches 1mg. However, phosphorylation stoichiometries may fall well below 10% and sample losses may be more or less anticipated, making high milligram amounts of starting material much more desirable.

| mRNA Class | #Unique mRNAs | Unique/ Total unique (%) | Copies unique | Copies unique (x) #Unique | Copies unique/ Total unique (%) | Unique protein/ 1mg extract | Unique Phosphoprotein at 10% Stoichiometry/ 1mg extract |
|--------------|---------------|--------------------------|---------------|---------------------------|---------------------------------|-----------------------------|---|
| Abundant | 6 | 0.05 | 12,296 | 73,776 | 2.700 | 27µg | 2.7µg |
| Intermediate | 595 | 4.94 | 276 | 164,220 | 0.061 | 0.61µg | 0.061µg |
| Rare | 11,437 | 95.01 | 19 | 217,303 | 0.004 | 0.04µg | 0.004µg |
| Total | 12,038 | 100 | | 455,299 | | | |

Ballif *et al.* Supplementary Figure 1



Supplementary Fig. 1. **Manual validation assists phosphorylation site identification.** A phosphopeptide is shown where manual validation finds the second Sequest hit correctly identifying the site of phosphorylation. In house software tools (Soleil Index) assisted in understanding peaks unassigned by Sequest. Further confidence of peptide identification may be obtained using a spectral prediction program (D. Schwartz, M. Chou and S. Gygi, manuscript in preparation) of the non-phosphorylated peptide. Note the prediction of the intense y9 and y6 peaks and the prediction of the weak y7 peak.

Comparisons of MS/MS data using a synthetic version of each phosphopeptide would provide an additional level of confidence. For large datasets this may become unwieldy. To be confident of the phosphorylation site assignment, we have therefore started with the very conservative Sequest Xcorr scores of 2.5 and 3.3 for doubly and triply charged phosphopeptide ions respectively. Further confidence of the assignments in this dataset is derived from the fact that the predicted solution charge states of the phosphopeptides are consistent with their observed elution from the SCX column (Fig. 3), and the predicted molecular weight range of their corresponding protein is in good agreement with the gel band from which they originated. We anticipate that instruments capable of increased mass accuracy will be important tools in future phosphoproteomic studies, permitting high confidence in phosphorylation site assignments, even when search algorithms give low scores.

Ballif et al. Supplementary Figure 2

Mode 1 (RXXSXP)

Hypothetical Protein RIKEN clone:B930032I08

Query: RAEPHSEDDSRDAsPPEPASPTIGLDKKTRRK

Sbjct: RAEPHSEDDSRDAsPPEPASPTIGLDKKTRRK gi|28557802|ref|NP_777580.1| [Homo sapiens]
Sbjct: RAEPHSEDDSRDAsPPEPASPTIGLDKKTRRK gi|34873458|ref|XP_220885.2| [Rattus norvegicus]
Sbjct: SKDDSRDAsPPEPASPTIGLDKKTRRK gi|30911133|gb|AC136964.2| [Sus scrofa]*

Hypothetical Protein mKIAA1761 protein

Query: EDSIKVIRNMRAsPPASASDLIEQQQ-----KRG-RREHKALI

Sbjct: EDSIKVIRNMRAsPPASASDLIEQQQ-----KRG-RREHKALI gi|12698067|dbj|BAB21852.1| [Homo sapiens]
Sbjct: EDSIKVIRNMRAsPPASASDLIEQQQ-----KRG-RREHKALI gi|34859791|ref|XP_342312.1| [Rattus norvegicus]
Sbjct: EDSIKVIRNMRAsPPASASDLIEQQQ-----KRG-RREHKALI gi|11041493|dbj|BAB17283.1| [Macaca fascicularis]
Sbjct: EDSIRVIRNMRAsPPASASDLIEQQQ-----KRA-RREHKGLI gi|47229634|emb|CAG06830.1| [Tetraodon nigroviridis]
Sbjct: EDSIRVIRNMRAsPPASASDLIEQQQ-----RRA-RREHKALI gi|47087247|ref|NP_998686.1| [Danio rerio]
Sbjct: EDTLEISKVMRAsPPITAPSNDNNA-----KRS-RPSRSLI gi|31225507|ref|XP_317581.1| [Anopheles gambiae]
Sbjct: EDTLEVTKCMRAsPPATADILENQYP-----KRNFKR---SLM gi|45550534|ref|NP_647806.2| [Drosophila melanogaster]
Sbjct: EDSIQVVKSMRAsPPSYTLDLGSQ LAPPPSKLRGRRSRR---QLL gi|6330197|dbj|BAA86484.1| [Homo sapiens]
Sbjct: EDSIQVVKSMRAsPPSYTLDLGSQ LAPPPSKLRGRRSRR---QLL gi|26334907|dbj|BAC31154.1| [Mus musculus]
Sbjct: EDSIQVVKSMRAsPPSYTLDLGSQ LAPPPSKLRGRRSRR---HK-YI gi|34855075|ref|XP_231564.2| [Rattus norvegicus]

Hypothetical Protein BC012010

Query: MDRNPsPPPTCGSEDEEDLGG--GDRIGSTVYSKHWLFGV

Sbjct: MDRNPsPPPPGRDKEEEEEVAG-GDCIGSTVYSKHWLFGV ref|NP_612430.1| [Homo sapiens]
Sbjct: MDRNPsPPPPSCDQDEEDLGS--GDRIGNTVYSKHWLFGV ref|XP_214948.2| [Rattus norvegicus]
Sbjct: MDRNPsPP---SSDESAP---GDCIGDTIYSKHWFST ref|NP_998861.1| [Xenopus tropicalis]
Sbjct: MDRNPsPP---SSDEEAPEDD---SIGDTVYSKHWFST gi|46049582|dbj|BP701183.1| [Xenopus laevis]*
Sbjct: LDRNPsPP---EEDETEATEE-ADAIGQTIYSKHWLFT ref|NP_956429.1| [Danio rerio]
Sbjct: SSASTTPPAQEDAEAEALLERMRGDAVGNMYSRFFILKT ref|NP_611044.1| [Drosophila melanogaster]

lunapark

Query: STNEAKSPVLRADsVNPNEPSEESLVTK

Sbjct: SVIETNSTVPGADSI DPPELSEGLTAE gi|38176151|ref|NP_085153.1| [Homo sapiens]
Sbjct: STNEAKSPVLRSDSVSNLELSEDSVVTK gi|34855225|ref|XP_342451.1| [Rattus norvegicus]

cordons-bleu (cobl)

Query: NLVSPHMNGSRTIsPPSAVETDTPPIGKVEFWRRNSME

Sbjct: NLVSPHATGRIISLSSSVPEAESQPIGKVEFWRRNSME gi|28374332|gb|AAH45771.1| [Homo sapiens]
Sbjct: NLMSPHMNGSRTIsKPSAVAETEAPPIGKVEFWRRNSME gi|34879123|ref|XP_223597.2| [Rattus norvegicus]

Mode 2 (RXXXsXP)

eIF-4B

Query: EPNIDRSRLPKsPPYTAFLGNLPYDVTEDSIKDFFRGLN

Sbjct: EPNIDRSRLPKsPPYTAFLGNLPYDVTEESIKDFFRGLN gi|18146614|dbj|BAB82380.1| [Homo sapiens]
Sbjct: EPNIDRSRLPKsPPYTAFLGNLPYDVTEESIKDFFRGLN gi|34868564|ref|XP_217058.2| [Rattus norvegicus]
Sbjct: EPNIDRSRLPKsPPYTAFLGNLPYDVTEESIKDFFRGLN gi|18000293|gb|AAL54908.1| [Lapemis hardwickii]
Sbjct: EPNVDRSRLPRsPPYTAFLGNLPYDVTEDSIKNFFRGLS gi|47682327|gb|AAH70016.1| [Danio rerio]
Sbjct: EPNIDLSRLPRNPPYTAFLGNLPYDVTEDSIKDFFRGLA gi|47212108|emb|CAF96690.1| [Tetraodon nigroviridis]
Sbjct: IF-DDNS-IPHKAPFIAYINNLFPDANEDDLYEFFEGIN gi|17946109|gb|AAL49096.1| [Drosophila melanogaster]
Sbjct: ILNDD-S-IPSPsFVYVSNLFPYDINENDLYDIFE-NV gi|31203227|ref|XP_310562.1| [Anopheles gambiae]
Sbjct: RKQKE---LPTEPPFTAYVGNLFPNTVQGDIDNIFKDLs gi|38051913|gb|AAH60394.1| [Xenopus laevis]

alveolar soft part sarcoma chromosome region, candidate 1 long isoform

Query: ADVLVARCMSRASGsPP-----LLPAPDPVLSLESEPIAEDGALG

Sbjct: ADVLVARYMSRAAGSPP-----PLPAPDPAP-KSEPAAEAGALV gi|13129078|ref|NP_076988.1| [Homo sapiens]
Sbjct: ANESVSRCIL-GSPGSCSSAEPSPETPADASTSTQEEA--- gi|47223847|emb|CAG06024.1| [Tetraodon nigroviridis]
Sbjct: ADLLMARCLSKPLAPSASSLESIVPALPEPEVGSDDKTERPEP gi|41630381|emb|BX929853.1| [Gallus gallus]*

Supplementary Fig. 2. Conservation analysis of additional potential 14-3-3 binding motifs.

Alignments of additional potential 14-3-3 binding motifs generated from phosphopeptide data were performed as in Fig. 5. Motif residues are in bold with the identified phosphorylated serine residue in lower-case. *Indicates sequence was identified from the translated EST database.

Supplementary Table 2. Complete dataset of phosphopeptides identified in this study from murine embryonic brain extract. Phosphopeptides were sorted by accession number. The gel band from which the MS/MS spectrum originated, the charge state of the ion selected for MS/MS analysis, the Sequest Xcorr score, the accession number, the theoretical solution charge state and the SCX fraction containing the phosphopeptide are indicated. The sequence of the phosphopeptide is given with the position of the phosphate on serine, threonine or tyrosine followed by an asterisk (*). Under notes indicates no ambiguity for at least one site on the phosphopeptide. Also denoted as notes are Sequest hit numbers if the top hit was not accepted, as well as the number of times (in Roman numerals) a given phosphopeptide was identified from distinct MS/MS spectra. If the same phosphopeptide was found in additional regions, tallies demarcating such are indicated following a dash (e.g. (3-III)). The number of unique sites identified from each phosphopeptide follows. If the position of phosphate remained ambiguous, it was tabulated as such. The residues potentially phosphorylated were provided as notes with any preferred site (best fit of data) indicated by an asterisk (*). Additionally, the names and predicted molecular weights of the proteins harboring the tryptic phosphopeptides are indicated. This entire dataset is available on our lab website at the following link, <http://gygi.med.harvard.edu/pubs/brain/PhosphoBrain.xls>. Raw N

| Gel Band | charge | Xcorr | Accession | Sol. charge | SCX Fraction | Sequence | Notes | # Unique Sites | # Ambig. Sites | Protein | Predicted MW |
|----------|--------|--------|---------------|-------------|--------------|--|---|----------------|----------------|---|--------------|
| 3 | 2 | 3.5596 | SW:143Z_MOUSE | 0 | 3,4 | R.DNLTLWTSDDT*QGDEAEAGEGEG-- | Phosphorylation at S1 or T3 | | | 14-3-3 zeta/delta | 288Da |
| 1 | 2 | 3.1138 | SW:4ET_MOUSE | (+) | 14 | R.IPS*PIGFPSGPQQLLGDFFQGM.R.K | ○ | 1 | | eukaryotic translation initiation factor 4e transporter | 1088Da |
| 1 | 2 | 3.4159 | SW:A180_MOUSE | (+) | 18 | K.SPATTVTS*PNSTPAK.T | ○ Hit #3 (II) | 1 | | Clathrin coat assembly protein 1p180 | 924Da |
| 2 | 2 | 3.746 | SW:ACTA_HUMAN | (+) | 15 | K.S*YELPDGQVITIGNER.F | Phosphorylation at S1* or Y1 (II) | | 1 | alpha-actin 2 | 42kDa |
| 1 | 2 | 3.6132 | SW:ADDA_MOUSE | (+) | 19 | K.SPPDQSAVPT*PPSTPVK.L | ○(III) | 1 | | alpha adducin | 81kDa |
| 1 | 2 | 2.8737 | SW:ANS1_MOUSE | (+) | 16 | K.SPS*FASEWDEIEK.I | ○ Hit #2 | 1 | | ankyrin repeat and sam dom containing protein 1 | 125kDa |
| 1 | 2 | 3.2742 | SW:APB2_MOUSE | (+) | 16 | K.ESYQDYYPPTNGTGGAS*PYR.M | ○ | 1 | | amyloid beta (A4) precursor pbp (mint-2) | 83kDa |
| 1 | 2 | 2.9397 | SW:ARS2_MOUSE | (+) | 16 | R.TQLWASEPGT*PPVPFSLPSQNPILK.N | ○ | 1 | | arsenite-resistance protein 2/acetylcholinesterase | 100kDa |
| 1 | 2 | 5.0027 | SW:ARVC_MOUSE | (+) | 14 | R.S*LAADDEGGDPLEDPYSTATR.R | ○(II) | 1 | | armadillo repeat gene deleted in velo-cardio-facial syndrome | 97-105kDa |
| 2 | 2 | 3.8406 | SW:AVEN_MOUSE | (+) | 19,20 | R.VEEDS*DSEYGEENDEQGNFS.R | ○(II) | 1 | | cell death regulator aven | 37kDa |
| 1 | 2 | 2.6148 | SW:BINI_MOUSE | 0 | 5,6 | K.SPS*PPPDGS*PAATPEIR.V | ○ Hit #2 | 2 | | bridging integrator 1 (amphiphysin-like protein) (amphiphysin ii) | 65kDa |
| 2 | 3 | 4.9335 | SW:CC23_MOUSE | (+) | 15 | R.NQGET*PISDTPTGTFPLASLANNTPTR.R | ○ Hit #2 (II) | 1 | | cell division cycle protein 23/anaphase promoting complex subunit 8 | 69kDa |
| 2 | 3 | 4.4797 | SW:CC23_MOUSE | (+) | 18 | R.NQGET*PISDTPTGTFPLASL*ANNTPTR.R | ○(III) | 1 | | cell division cycle protein 23/anaphase promoting complex subunit 8 | 69kDa |
| 4 | 2 | 2.6477 | SW:CDN5_MOUSE | 0 | 12 | -MLGGSSDAGLAT*AAAR.G | ○ | 1 | | cyclin-dependent kinase 4 inhibitor b (p14-ink4b) (p15-ink4b) | 14kDa |
| 4 | 2 | 2.6597 | SW:CHR1_MOUSE | (+) | 19,20 | K.REEEEEDNDDGS*DLGEALA.- | ○ | 1 | | chromatin accessibility complex protein 1 (chrac-1) | 14kDa |
| 2 | 2 | 3.4741 | SW:CN1B_MOUSE | (+) | 15 | R.QPS*LDVDVGDNDPVDVSR.FA | ○(VI) | 1 | | calcium/calmodulin-dependent 3',5'-cyclic nucleotide phosphodiesterase 1b | 61kDa |
| 2 | 2 | 3.4843 | SW:CRK_MOUSE | (+) | 19,20 | R.DSS*TSFGDYVLSVSENSR.V | ○ | 1 | | proto-oncogene c-crk | 34kDa |
| 3 | 2 | 3.4965 | SW:CRKL_MOUSE | (+) | 13 | R.YPS*PPVGSAPNLP.TAEENLEVVRT | ○(B-III) | 1 | | crk-like (CrkL) | 34kDa |
| 3 | 3 | 4.2995 | SW:CT77_MOUSE | (+) | 14 | R.TFQQIEEEDDDYPGSYS*PODPSAGLLTEELIK.A | ○(III) | 1 | | protein c2orf77 homolog | 37kDa |
| 3 | 2 | 2.6757 | SW:CTD2_MOUSE | (+) | 17 | K.NSSL*PGLTNSGDGETTETSILASVK.E | ○ | 1 | | catenin delta-2 | 135kDa |
| 1 | 2 | 2.7745 | SW:CTN1_MOUSE | 0 | 5,6 | R.T*SVQ*EDDQLAGQSAR.A | ○ Phosphorylation at T2 and T1 or S1 | | 1 | alpha-1 catenin/alpha e-catenin | 100kDa |
| 1 | 2 | 4.1274 | SW:CTN1_MOUSE | (+) | 16 | R.TPEELDDSD*DFETDFDVR.S | ○(VI) | 1 | | alpha-1 catenin/alpha e-catenin | 100kDa |
| 1 | 2 | 4.2345 | SW:CTN2_MOUSE | (+) | 16 | K.QVOEALGISSAAQATS*PTEAK.G | ○(II) | 1 | | alpha-2 catenin/alpha n-catenin | 105kDa |
| 1 | 2 | 3.6034 | SW:CTN2_MOUSE | (+) | 18 | K.VYGTAAVNS*PVVSWK.M | ○ | 1 | | alpha-2 catenin/alpha n-catenin | 105kDa |
| 1 | 2 | 3.7751 | SW:CTN2_MOUSE | (+) | 17 | R.TPEELDDSD*DFEQEDYDVR.S | ○(V) | 1 | | alpha-2 catenin/alpha n-catenin | 105kDa |
| 1 | 2 | 3.8399 | SW:DBS_MOUSE | (+) | 16 | R.TS*STGEEELSLAILR.R | Phosphorylation at T1, S1 or S2 | | 1 | guanine nucleotide exchange factor dbf3's big sister | 129kDa |
| 1 | 2 | 2.6218 | SW:DCK1_MOUSE | 0 | 5,6 | K.AQ*APPELNSSES*EDYS*PSSSETVR.S | ○ Phosphorylation at S3 and S1 or S2 (III) | 1 | 1 | doublecortin-like and cam kinase-like 1 | 84kDa |
| 1 | 2 | 3.3267 | SW:DCK1_MOUSE | (+) | 16 | K.AQ*APPELNSSES*EDYS*PSSSETVR.S | ○ (see doubly phosphorylated) | | | doublecortin-like and cam kinase-like 1 | 84kDa |
| 2 | 2 | 3.212 | SW:DCK1_MOUSE | (+) | 19,20 | K.S*PASTSSVNGTSGQLSTPR.S | Phosphorylation at S1, S2 or T1 | | 1 | doublecortin-like and cam kinase-like 1 | 84kDa |
| 1 | 2 | 2.9378 | SW:DCK1_MOUSE | (+) | 20 | R.S*KS*PASTSSVNGTSGQLSTPR.S | ○ | 2 | | doublecortin-like and cam kinase-like 1 | 84kDa |
| 2 | 2 | 3.3428 | SW:DC2_MOUSE | (+) | 18 | R.TGVES*GDYEMLGEGLVK.E | ○(VI) | 1 | | dynactin complex 50 kDa subunit | 44kDa |
| 2 | 2 | 4.7463 | SW:DCX_MOUSE | (+) | 16 | K.S*PADSNDQDANGTSSQLSTPK.S | ○(III) | 1 | | doublecortin | 41kDa |
| 2 | 2 | 3.0286 | SW:DCX_MOUSE | 0 | 9 | R.S*KPSADSDNDQDANGTSS*QLST*PK.S | ○ Phosphorylation at S2 and S4, S5 or S6 and S7 or T2 | | 2 | doublecortin | 41kDa |
| 2 | 2 | 3.944 | SW:DEMA_MOUSE | (+) | 16 | R.LQS*TEFSPGSEAGSPQLQNGEQQR.G | Phosphorylation at S1 or T1 (III) | | 1 | dematin | 45kDa |
| 2 | 2 | 3.0687 | SW:DMA1_MOUSE | (+) | 19,20 | K.DTHIDVVGAPL.T*PNSR.K | ○ | 1 | | dna methyltransferase 1-associated protein 1 | 53kDa |
| 1 | 2 | 3.823 | SW:DPY1_MOUSE | (+) | 17 | R.GMYDGPVVEVPAT*PK.H | ○(III)(D-I) | 1 | | dihydropyrimidinase related protein-2/uip 3 protein | 62kDa |
| 2 | 2 | 3.1496 | SW:DPY2_MOUSE | (+) | 14 | K.IVNDDQSFY*ADYMEDGLIK.Q | Phosphorylation at S1* or Y1 | | 1 | dihydropyrimidinase related protein-2/uip 2 protein | 62kDa |
| 1 | 2 | 3.3329 | SW:DPY2_MOUSE | (+) | 17 | R.GLYDGPVSEVST*PK.T | ○(II)(D-I) | 1 | | dihydropyrimidinase related protein-2/uip 2 protein | 62kDa |
| 2 | 2 | 4.2245 | SW:DPY3_MOUSE | (+) | 21,22 | R.GMYDGPVFDLTTT*PK.G | ○(XI)(D-II) | 1 | | dihydropyrimidinase related protein-3/unc-33-like phosphoprotein | 62kDa |
| 1 | 2 | 3.7295 | SW:DREB_MOUSE | 0 | 7,8 | R.SPSDSS*FAST*PIAEQIER.A | ○ Hit #2 (III) | 2 | | drebrin | 77kDa |
| 1 | 2 | 2.6082 | SW:E4L1_MOUSE | (+) | 18 | R.GACST*PEMPOFESVK.A | ○ | 1 | | neuronal protein 4.1/E4L1 | 98kDa |
| 1 | 2 | 3.7793 | SW:E4L3_MOUSE | (+) | 17 | K.DSVS*AAEVGTGQYATK.G | Phosphorylation at S1 or S2 | | 1 | band 4.1-like protein 3, dal-1 | 103kDa |
| 1 | 2 | 2.7974 | SW:E4L3_MOUSE | (+) | 19 | K.GIS*QTNLITVT*PEKK.A | ○ | 2 | | band 4.1-like protein 3, dal-1 | 103kDa |
| 1 | 2 | 2.7644 | SW:E4L3_MOUSE | (+) | 15 | K.GIS*QTNLITVT*PEK.K | ○ (see doubly phosphorylated) | | | band 4.1-like protein 3, dal-1 | 103kDa |
| 1 | 2 | 2.7112 | SW:E4L3_MOUSE | 0 | 5,6 | R.TD*AADGETS*ATES*DQEEADAEIK.A | ○ Hit #3 | 2 | | band 4.1-like protein 3, dal-1 | 103kDa |
| 1 | 2 | 3.2996 | SW:E4L3_MOUSE | (+) | 18 | R.VESTSVGSIS*PGGAK.L | ○ | 1 | | band 4.1-like protein 3, dal-1 | 103kDa |
| 3 | 3 | 3.9077 | SW:ENAM_MOUSE | (+) | 7 | R.KNOET*SPVHT*ES*SYIK.Y | ○ Phosphorylation at T1, T2 and S2 or S3 (II) | 2 | 1 | enamelin precursor | 141kDa |
| 2 | 2 | 3.4222 | SW:G3B2_MOUSE | (+) | 19,20 | K.SAT*PPPAEASLPQEPK.A | ○(II) | 1 | | ras-gapase-activating protein bp2/g3bp-2 | 54kDa |
| 1 | 2 | 4.1627 | SW:G3BP_MOUSE | (+) | 16 | K.STS*PAPADVAPAQDLR.T | ○(III)(B-I) | 1 | | ras-gapase-activating protein bp1/g3bp-1 | 52kDa |
| 1 | 3 | 5.0823 | SW:G3BP_MOUSE | (+) | 14 | R.YQDEVFVGGVTEPQEEES*EEVEEPEER.Q | ○(B-I)(C-II) | 1 | | ras-gapase-activating protein bp1/g3bp-1 | 52kDa |
| 1 | 3 | 3.6975 | SW:GRBA_MOUSE | (+) | 12 | R.TASLPAIPNPEFLTGAAPGS*PPSVAPSSLPPPPSQPPAK.H | ○(II) | 1 | | growth factor receptor-bound protein 10 (grb10) | 70kDa |
| 1 | 3 | 5.9101 | SW:H105_MOUSE | (+) | 15 | K.NIQDQNSEAGTQPQVQTDGQQTSQSPSS*PELTSEESK.T | ○ | 1 | | heat-shock protein 105 kDa | 96kDa |
| 4 | 2 | 3.3668 | SW:HBB1_MOUSE | (+) | 17 | R.YFDS*FGDLSASAIMGNK.V | ○ | 1 | | hemoglobin beta-1 chain (b1) | 16kDa |
| 2 | 3 | 4.4904 | SW:HDTF_MOUSE | 0 | 7,8 | K.NS*TPS*EPDS*GQGPAAEEEEEEEEAAKEEAQVGR.VD | ○ Phosphorylation at S2 and S3 and S1 or T1 | | 1 | hepatoma-derived growth factor (hdgf) | 26kDa |
| 1 | 2 | 2.6856 | SW:HS9B_MOUSE | (+) | 18 | K.IEDVGS*DEEDDSGK.D | ○ | 1 | | Hsp90 | 83kDa |
| 4 | 2 | 3.1168 | SW:ICE3_MOUSE | (+) | 17 | K.S*VDSGIYLDSSVK.M | ○(II) | 1 | | caspase-3 | 31kDa |
| 2 | 2 | 3.0027 | SW:IF34_MOUSE | 0 | 5,6 | K.GIPLPTGDT*SP*PEPELLPGDPLPPP.E | ○ | 2 | | eukaryotic translation initiation factor 3, subunit 4 | 36kDa |
| 3 | 2 | 3.9793 | SW:IF34_MOUSE | (+) | 15 | K.GIPLPTGDT*SP*PEPELLPGDPLPPP.E | ○(VIII)(B-I)(D-I)(see doubly phosphorylated) | | | eukaryotic translation initiation factor 3, subunit 4 | 36kDa |
| 2 | 2 | 2.5054 | SW:IF5_MOUSE | 0 | 5,6 | K.EAEES*SGEEEDENIEVYYSK.T | ○ | 2 | | eukaryotic translation initiation factor 5 | 49kDa |
| 2 | 2 | 4.4679 | SW:IF5_MOUSE | (+) | 15 | K.EAEES*SGEEEDENIEVYYSK.T | ○ Hit #2 (see doubly phosphorylated) | | | eukaryotic translation initiation factor 5 | 49kDa |
| 4 | 3 | 5.3903 | SW:IPK3_MOUSE | (+) | 14 | K.LAGDMGELAL.EGAEGAEGSTPDKEAS*SQPESSDANTSS.- | ○ Phosphorylation at S2 or S3 | | 1 | camp-dependent protein kinase inhibitor, gamma form | 8kDa |
| 3 | 3 | 3.4744 | SW:ITAB_MOUSE | (+) | 3,4 | R.AS*CAWHS*LWLWLQWTFPLGPSAVPPVWALNLDSEK.F | ○ | 2 | | integrin alpha-iiB precursor | 113kDa |

| | | | | | | | | | | | | |
|---|---|--------|---------------|-----|-------|---|---|---|---|--|--|---------|
| 1 | 2 | 3.9896 | SW-ITH2_MOUSE | (+) | 15 | R.SLPEES*GEETDTPVTLVLSYK.V | ○(V)(C-II) | 1 | | | inter-alpha-trypsin inhibitor heavy chain h2 precursor | 106kDa |
| 1 | 3 | 3.6741 | SW-ITN1_MOUSE | (+) | 15 | K.AQ5*FDVASAPAAEAWAVPOSSR.L | Phosphorylation at S1* or S2 | 1 | 1 | | intersectin 1 | 194kDa |
| 1 | 2 | 3.5069 | SW-ITN1_MOUSE | (+) | 18 | R.LPEEPS*EDEQPEK.K | ○ | 1 | | | intersectin 1 | 194kDa |
| 1 | 2 | 4.3181 | SW-ITN1_MOUSE | 0 | 7,8 | R.SAFTPATATGSS*PS*PVLGQGEK.V | ○(II) | 1 | 2 | | intersectin 1 | 194kDa |
| 1 | 3 | 4.7426 | SW-ITN1_MOUSE | (+) | 17 | R.SAFTPATATGSS*PS*PVLGQGEK.V | ○(see doubly phosphorylated) | | | | intersectin 1 | 194kDa |
| 1 | 2 | 3.0643 | SW-ITN1_MOUSE | (+) | 17 | R.SGS*GMSVSSSDQR.L | ○ | 1 | | | intersectin 1 | 194kDa |
| 1 | 2 | 3.0031 | SW-K685_MOUSE | (+) | 18 | R.NVPGLAAPSS*PTQK.E | ○(II) | 1 | | | klia0685 homolog | 100kDa |
| 1 | 2 | 3.6365 | SW-K6A2_MOUSE | (+) | 14 | R.GFS*FVASSLVQEPSQDDVPA.K | ○ | 1 | | | ribosomal s6 kinase 3 pp90rsk3 | 83kDa |
| 2 | 2 | 2.8924 | SW-KAPA_MOUSE | (+) | 9 | R.T*WTLGTPVLAPEILSK.G | ○(II) | 1 | | | camp-dependent protein kinase alpha catalytic subunit | 40kDa |
| 1 | 2 | 3.6541 | SW-KF3A_MOUSE | (+) | 15 | R.S*AKPETVIDSLQ.- | ○(II) | 1 | | | kinesin-like protein kif5a | 80 kDa |
| 2 | 2 | 2.5225 | SW-KGB_MOUSE | (+) | 21,22 | R.IQAAAS*PPANAASDITNAGDR.G | ○ | 1 | | | glycogen synthase kinase-3 beta | 47kDa |
| 1 | 2 | 3.8883 | SW-KGB_MOUSE | (+) | 17 | R.AFS*EDEALAQDQSH.H | ○ | 1 | | | klia1688 homolog (fragment) | >124kDa |
| 1 | 3 | 5.0772 | SW-KIE2_MOUSE | (+) | 16 | K.EFGSPSDIPSPQGGSRPDLSPS*YDYDDFS*PSITR.V | ○ Phosphorylation at S7 and S5, S6*, Y1 or Y2 | 1 | 1 | | kinesin-like protein kif2 | 81kDa |
| 1 | 3 | 5.0155 | SW-KLC3_MOUSE | (+) | 16 | R.AAS*LNLYNQNPAAPLQVSR.G | ○ | 1 | | | probable kinesin light chain 3 | 69kDa |
| 1 | 2 | 2.7595 | SW-KPCE_MOUSE | (+) | 17 | R.EEPILT*LVDEAIK.Q | ○(D-I) | 1 | | | protein kinase c, epsilon type (npkc-epsilon) | 84kDa |
| 1 | 2 | 3.3558 | SW-MACF_MOUSE | (+) | 17 | R.LLDAEDVDVPS*PDEK.S | ○ | 1 | | | microtubule-actin crosslinking factor 1 (macf1) | 608kDa |
| 1 | 2 | 2.5301 | SW-MACS_MOUSE | (+) | 18 | K.AEDGAAPSPSE*PK.K | ○ | 1 | | | myristoylated alanine-rich c-kinase substrate (marks) | 30kDa |
| 1 | 2 | 3.9074 | SW-MACS_MOUSE | 0 | 3,4 | K.EAAEAEPAPSS*PAAEAEGASASSTSS*PK.A | ○ Hit #2 (II) | 2 | | | myristoylated alanine-rich c-kinase substrate (marks) | 30kDa |
| 1 | 2 | 3.1868 | SW-MACS_MOUSE | (+) | 16 | K.EAAEAEPAPSS*PAAEAEGASASSTSS*PK.A | ○ Hit #2 (see doubly phosphorylated, V) | | | | myristoylated alanine-rich c-kinase substrate (marks) | 30kDa |
| 1 | 2 | 2.616 | SW-MACS_MOUSE | (+) | 18 | K.VNGDAS*PAAEAPGAK.E | ○ | 1 | | | myristoylated alanine-rich c-kinase substrate (marks) | 30kDa |
| 1 | 3 | 5.0937 | SW-MACS_MOUSE | (+) | 14 | R.EAAEAEPQEPQEPQAAEPQAAEQS*EAAGEK.A | ○ | 1 | | | myristoylated alanine-rich c-kinase substrate (marks) | 30kDa |
| 1 | 3 | 4.1677 | SW-MAP2_MOUSE | (+) | 16 | K.AQSPS*PPAQAGYSTLAQSYTPGHSELPEEPSS*PQERM.M | ○ | 2 | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 2 | 3.6104 | SW-MAP2_MOUSE | (+) | 18 | K.DGS*PDAPAT*PEKEVAFSEYK.T | ○(III) | 2 | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 2 | 2.5135 | SW-MAP2_MOUSE | (-) | 1,2 | K.SGTS*TPITPGSTAIT*PGT*PPSYSSR.T | ○ Phosphorylation at T6, T7 and S1, T1, S2 or T2 | 2 | 1 | | microtubule-associated protein 2 (map 2) | 199kDa |
| 2 | 2 | 2.6732 | SW-MAP2_MOUSE | 0 | 3,4 | K.SGTS*TPITPGSTAIT*PGT*PPSYSSR.T | ○ Phosphorylation at T7 and S1, T1, S2 or T2 (see doubly and triply, II) | | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 2 | 2.802 | SW-MAP2_MOUSE | 0 | 3,4 | K.SGTS*TPITPGSTAIT*PGT*PPSYSSR.T | ○ Phosphorylation at T7 and S1, T1, S2 or T2 (see triply phosphorylated, III) | | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 2 | 2 | 2.6788 | SW-MAP2_MOUSE | (+) | 10 | K.SGTS*TPITPGSTAIT*PGT*PPSYSSR.T | ○ Hit #2 | 1 | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 3 | 3.7075 | SW-MAP2_MOUSE | 0 | 9 | K.SGTS*TPITPGSTAIT*PGT*PPSYSSR.T | ○ Phosphorylation at T7 and S4*, S5 or S6 | | 1 | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 3 | 4.0538 | SW-MAP2_MOUSE | (+) | 18 | K.SGTS*TPITPGSTAIT*PGT*PPSYSSR.T | ○(see doubly and triply phosphorylated, II) | | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 3 | 3.9249 | SW-MAP2_MOUSE | (+) | 18 | R.GHDLSPLAS*DILTN*GSMDEGDDVLPPTPAVEK.M | ○ Phosphorylation at S1 and T2 or S3 | 1 | 1 | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 2 | 2.5886 | SW-MAP2_MOUSE | (+) | 19 | R.GSAQESLDTIS*PK.N | ○ | 1 | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 2 | 2.7295 | SW-MAP2_MOUSE | (+) | 18 | R.LAS*VSADAERAR.R | ○ | 1 | | | microtubule-associated protein 2 (map 2) | 199kDa |
| 1 | 2 | 3.1564 | SW-MAP4_MOUSE | (+) | 16 | K.AAEQMSLTDIDAPS*PLENLEQK.E | ○(III) | 1 | | | microtubule-associated protein 4 (map 4) | 118kDa |
| 1 | 3 | 5.0229 | SW-MAP4_MOUSE | (+) | 17 | K.ALETMAEQTTDVVHS*PSTDTT*PGDTEAALAK.D | ○ | 2 | | | microtubule-associated protein 4 (map 4) | 118kDa |
| 1 | 2 | 3.1705 | SW-MAP4_MOUSE | (+) | 18 | K.AT*SPSTLVSTGPPSSR.S | Phosphorylation at T1 or S1 | | 1 | | microtubule-associated protein 4 (map 4) | 118 kDa |
| 1 | 2 | 3.1888 | SW-MAP4_MOUSE | (+) | 16 | K.DMS*PLPESEVTLGK.D | ○(III) | 1 | | | microtubule-associated protein 4 (map 4) | 118kDa |
| 1 | 2 | 2.6503 | SW-MAP4_MOUSE | (+) | 17 | K.DMS*PSAETEAPLAK.N | ○(II) | 1 | | | microtubule-associated protein 4 (map 4) | 118 kDa |
| 1 | 3 | 5.1929 | SW-MAP4_MOUSE | (+) | 16 | K.VAEFNNVPLSEEV*SVKDMSPS*AETEAPLAK.N | ○ Phosphorylation at S3 and T2 or S2 (II) | 1 | 1 | | microtubule-associated protein 4 (map 4) | 118kDa |
| 1 | 2 | 3.5162 | SW-MAPB_MOUSE | (+) | 16 | K.FEDEGAFEESS*ETGDYEEK.A | ○(III) | 1 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 4.2823 | SW-MAPB_MOUSE | (+) | 15 | K.LGGDVS*PTQIDVSOQGF.K.E | ○(VI) | 1 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 2.5069 | SW-MAPB_MOUSE | 0 | 7,8 | K.SPILS*PSPS*PIEK.T | ○ Hit #2 (II) | 2 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 3 | 3.6084 | SW-MAPB_MOUSE | 0 | 5,6 | K.TLEVVSPPS*QVTSAGHTPYVY*QS*PTDEK.S | ○(II Phosphorylation at S1, S5 and S2, S3, T1, T2*, Y1 or Y2 | 2 | 1 | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 3 | 5.4597 | SW-MAPB_MOUSE | (+) | 17 | K.VLS*PLRS*PPLLGSSEPYEDFLSADSK.V | ○ | 2 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 2.6979 | SW-MAPB_MOUSE | 0 | 5,6 | R.ASL*PMDEPVPDSES*PVEK.V | ○(XII) | 2 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 2 | 2 | 2.7714 | SW-MAPB_MOUSE | (+) | 18 | R.ASL*PMDEPVPDSES*PVEK.V | ○(see doubly phosphorylated) | | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 3.033 | SW-MAPB_MOUSE | (+) | 16 | R.ASLPMDEPVPDSES*PVEK.V | ○(see doubly phosphorylated, III) | | | | microtubule-associated protein 1b (map 1b) | 212kDa |
| 1 | 2 | 3.5409 | SW-MAPB_MOUSE | (+) | 16 | R.DVMSDETNNETES*PSQEFVNTK.Y | ○(V) | 1 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 2.5914 | SW-MAPB_MOUSE | 0 | 7,8 | R.ESS*PLYS*PGFSDLSAAK.E | ○(II) | 2 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 3.4981 | SW-MAPB_MOUSE | (+) | 16 | R.SPILLGSES*PYEDFLSADSK.V | ○ Hit #2 | 1 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 2.789 | SW-MAPB_MOUSE | (+) | 18 | R.SVNFSLT*PNEK.V | ○ | 1 | | | microtubule-associated protein 1b (map 1b) | 270kDa |
| 1 | 2 | 2.5902 | SW-MCM2_MOUSE | (+) | 20 | R.GLYDS*SEEDERPAR.K | ○ | 2 | | | dna replication licensing factor mcm2 | 102kDa |
| 1 | 2 | 2.8525 | SW-MCM2_MOUSE | (+) | 19 | R.ISDPLTSS*PGR.S | ○ | 1 | | | dna replication licensing factor mcm2 | 102kDa |
| 2 | 2 | 4.1577 | SW-MCS1_MOUSE | (+) | 19,20 | K.GDQVLFNS*DAEDLIDDSK.L | ○ | 1 | | | microspherule protein 1 | 58kDa |
| 2 | 2 | 2.9905 | SW-AJD1_MOUSE | (+) | 17 | R.VLEAADGS*GIFDEDDDLQRA | ○(II) | 1 | | | machado-joseph disease protein 1 (ataxin-3) | 41kDa |
| 2 | 2 | 2.8405 | SW-MK08_MOUSE | 0 | 5,6 | R.GQPS*PLAQVQQ.- | ○ | 1 | | | stress-activated protein kinase-c-jun n-terminal kinase 1 jnk1 | 44kDa |
| 2 | 2 | 2.5573 | SW-MK08_MOUSE | 0 | 11 | R.TAGTSMMT*PV*VVTR.Y | ○ | 2 | | | stress-activated protein kinase-c-jun n-terminal kinase 1 jnk1 | 44kDa |
| 2 | 3 | 3.5578 | SW-MPP2_MOUSE | (+) | 14 | K.TYETPPPS*GLDPTFSNQPVPPDAVR.M | Phosphorylation at T1, Y1, T2 or S1 | | 1 | | maguk p55 subfamily member 2 | 62kDa |
| 2 | 2 | 2.5605 | SW-MRP_MOUSE | (+) | 21,22 | K.AAAT*PESEQPAQK.G | ○ Hit #2 | 1 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 4.1298 | SW-MRP_MOUSE | (-) | 3,4 | K.EDGTEEEAGPQAAEPST*PSGPESGPT*PASAEQNE.- | ○(see singly phosphorylated for first T*P) | | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 5.8766 | SW-MRP_MOUSE | 0 | 5,6 | K.EDGTEEEAGPQAAEPST*PSGPESGPT*PASAEQNE.- | ○(XI)(D-II)(A-II) | | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 4.5136 | SW-MRP_MOUSE | 0 | 3,4 | K.EDGTEEEAGPQAAEPST*PSGPESGPT*PASAEQNE.- | ○(II)(D-III)(C-I) | | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 6.0992 | SW-MRP_MOUSE | (+) | 16 | K.EGGDSSASS*PTEEEOEQGEMSAACSDEGTAQEGG.A | ○(II) | 1 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 7.2476 | SW-MRP_MOUSE | (+) | 19,20 | K.EGGDSSASS*PTEEEOEQGEMSAACS*DEGTAQEGG.A | ○ | 1 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 3.9697 | SW-MRP_MOUSE | (-) | 3,4 | K.GAEAS*AS*KEGDTTEEEAGPQAAEPST*PSGPESGPT*PASAEQNE.- | ○ Hit #2 (see singly phosphorylated for T*P) | 2 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 4.5921 | SW-MRP_MOUSE | (+) | 7,8 | K.GAEAS*AS*KEGDTTEEEAGPQAAEPST*PSGPESGPT*PASAEQNE.- | ○ | 1 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 5.3622 | SW-MRP_MOUSE | (+) | 10 | K.GEGES*PPVNGTDEAAGATGDAIEPAPPQAEAAK.G | ○ Hit #2 | 1 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 3 | 5.0478 | SW-MRP_MOUSE | (+) | 10 | K.GEGES*PPVNGTDEAAGATGDAIEPAPPQAEAAK.G | ○ | 1 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 2 | 3.1914 | SW-MRP_MOUSE | (+) | 21,22 | R.GDVTAEAAAGAS*PAK.A | ○ | 1 | | | macrophage myristoylated alanine-rich c kinase substrate | 20kDa |
| 2 | 2 | 3.0931 | SW-MY5A_MOUSE | (+) | 16 | R.TSS*IADEGTYTILSILR.Q | Phosphorylation at S1 or S2 (III) | | 1 | | dilate myosin heavy chain, non-muscle | 216kDa |
| 1 | 3 | 5.1736 | SW-NC1_MOUSE | (+) | 18 | K.APPASKAS*PAPITPAGAAS*PLAAVAAPADAPQAK.Q | ○(see overlapping phosphopeptides) | 2 | | | neural cell adhesion molecule 1(n-cam 180) | 120kDa |

| | | | | | | | | | | | |
|---|---|--------|----------------|-----|-------|---|---|---|---|---------------------|--------|
| 1 | 2 | 2.606 | SW:UTX_MOUSE | 0 | 5,6 | K.TDNSVA55*PSSAISTATPS*PK.S | ○ Hit #3 | 2 | ubiquitously transcribed trpp on X-chrom. | 157kDa | |
| 4 | 2 | 5.7376 | SW:VAM4_MOUSE | (+) | 17 | R.NLLEDD5*DEEDEFRLR.G | ○ (III) | 1 | vesicle-associated membrane protein 4 (vamp-4) | 16kDa | |
| 2 | 2 | 3.6798 | SW:VIME_MOUSE | (+) | 12 | R.LLQDS*VDFSLADAINTEFK.N | ○ (II) | 1 | vimentin | 54kDa | |
| 2 | 2 | 3.8897 | SW:VIME_MOUSE | (+) | 21,22 | R.SLYSS5*PGGAYVTR.S | ○ | 1 | vimentin | 54kDa | |
| 2 | 2 | 3.1128 | SW:XPA_MOUSE | (+) | 19,20 | K.QT5*PEPVAADPEPAQPAAVR.A | ○ Hit #2 | 1 | dna-repair protein complementing xp-a cells homolog | 31kDa | |
| 1 | 2 | 3.7619 | SW:YAP1_MOUSE | (+) | 13 | R.GD5ET*DLEALFNAMVNMK.T | Phosphorylation at S1* or T1 | 1 | 65 kda ysc-associated protein | 51kDa | |
| 2 | 2 | 3.272 | SW:YB1_MOUSE | 0 | 3,4 | K.AADPPAEN55*APAEQGGAE.- | Phosphorylation at S1 or S2 | 1 | Y box-binding protein 1 | 36kDa | |
| 1 | 2 | 3.9437 | SW:ZIN_MOUSE | (+) | 15 | R.S*LELNGAGEPVEGAPR.A | ○ (II)(C-D) | 1 | striatin 4 (zinedin) | 82kDa | |
| 1 | 2 | 4.2375 | SWN:ALS2_MOUSE | (+) | 13 | R.S*ESPEPGVYVTSGLLLPVLLPRL | Phosphorylation at S1 or S2 (II) | 1 | alsin | 183kDa | |
| 1 | 2 | 2.8731 | SWN:CN04_MOUSE | (+) | 21 | R.NSS5*PVSPASVPGQR.R | ○ Hit #2 | 1 | protein c14orf4 homolog | 81kDa | |
| 1 | 2 | 3.2332 | SWN:CN31_MOUSE | (+) | 12 | K.SVS*HINVK.I | Phosphorylation at S1 or S2 (III) | 1 | protein c14orf31 homolog | 72kDa | |
| 1 | 2 | 3.4802 | SWN:14G2_MOUSE | (+) | 17 | R.TQT*PLGGTQPLGLK.T | ○ Hit #2 | 1 | eukaryotic translation initiation factor 4 gamma 2 eif-4g 2 | 102kDa | |
| 1 | 2 | 3.123 | SWN:M4K4_MOUSE | (+) | 18 | R.AASS*PNLSNGETESVK.T | ○ | 1 | mitogen-activated protein kinase kinase kinase (mekkk 4) | 141kDa | |
| 4 | 2 | 2.5717 | SWN:MLRN_MOUSE | (+) | 17 | R.ATS*NVFAMFDQSQJQFK.E | ○ | 1 | myosin regulatory light chain 2 | 20kDa | |
| 2 | 2 | 5.2862 | SWN:NLFB_MOUSE | (+) | 11 | R.KPS*PTQAAETPALDPLPSVPAPATL.- | Phosphorylation at S1 or T1(C-II) | 1 | negative elongation factor b | 66kDa | |
| 2 | 2 | 4.656 | SWN:SIR2_MOUSE | (+) | 17 | K.VQEAQDS*DSDEGGATGGEAEMDFLR.N | Phosphorylation at S1 or S2 (V) | 1 | nad-dependent decacylase sirutin 2 | 43kDa | |
| 1 | 2 | 3.3862 | SWN:SN3A_MOUSE | (+) | 13 | R.GDLS*DVVEEEEEEMDVEATGAPK.K | ○ | 1 | paired amphiphatic helix protein sin3a | 146kDa | |
| 1 | 3 | 3.3675 | SWN:TNIK_MOUSE | (+) | 12 | R.VYQTSPT*DEDEDESSAAALFTSELLR.Q | ○ | 1 | traf2 and neck interacting kinase | 103kDa | |
| 1 | 3 | 3.2748 | SWN:TNIK_MOUSE | (+) | 13 | R.VYQTSPTDEDEDESS*AAALFTSELLR.Q | Phosphorylation at S2 or S3 | 1 | traf2 and neck interacting kinase | 103kDa | |
| 1 | 2 | 3.1659 | SWN:UB4B_MOUSE | (+) | 18 | R.LAGGQTSOPTPLT5*PQR.E | ○ | 1 | ubiquitin conjugation factor e4 b/ufd2a | 133kDa | |
| 1 | 2 | 3.0408 | SWN:UB4B_MOUSE | (+) | 17 | R.SQS*MDIDGVSEK.S | ○ | 1 | ubiquitin conjugation factor e4 b/ufd2a | 133kDa | |
| 1 | 3 | 3.79 | SWN:UB4B_MOUSE | (+) | 17 | R.SQSEGVSSLS55*PNSLSTQSQSLR.S | Phosphorylation at S4, S5, S6, S7 or S8 | 1 | ubiquitin conjugation factor e4 b/ufd2a | 133kDa | |
| 1 | 3 | 4.4362 | SWN:UB4B_MOUSE | (+) | 17 | R.SQSEGVSSLS55*PNSLSTQSQSLR.S | ○ | 1 | ubiquitin conjugation factor e4 b/ufd2a | 133kDa | |
| 2 | 2 | 3.2104 | GP:AB015801 | (+) | 21,22 | R.ID5T*EVYQPR.R | Phosphorylation at S1 or T1 | 1 | LKB1 | 49kDa | |
| 1 | 2 | 2.6949 | GP:AB029291 | (+) | 21 | K.NVRS*DVS*DQEEDESER.C | ○ | 2 | pericentriolar material-1 (PCM-1) | 229kDa | |
| 1 | 2 | 2.8792 | GP:AB029291 | (+) | 18 | R.VTNAIS*PESSPGVGR.R | ○ | 1 | pericentriolar material-1 (PCM-1) | 229kDa | |
| 1 | 2 | 2.5438 | GP:AB033615 | (+) | 18 | R.GAAGGALPTS5*PALGAK.G | ○ | 1 | phospholipase C-12 | 126kDa | |
| 1 | 2 | 3.3506 | GP:AB073672 | 0 | 5,6 | K.ESET5*DS5*PIEIDDEFPTFSVAK.D | ○ (III) | 2 | nogo-A mRNA/RTN4 | 127kDa | |
| 1 | 2 | 2.5979 | GP:AB073672 | (+) | 13 | K.ESET5*DS5*PIEIDDEFPTFSVAK.D | ○ (see doubly phosphorylated) | | nogo-A mRNA/RTN4 | 127kDa | |
| 1 | 3 | 4.6565 | GP:AB073672 | (+) | 13 | K.ESET5*DS5*PIEIDDEFPTFSVAK.D | ○ (see doubly phosphorylated) | | nogo-A mRNA/RTN4 | 127kDa | |
| 1 | 2 | 2.8362 | GP:AB082952 | 0 | 7,8 | R.ILDTSSLTQ5*APAS*PTNK.G | ○ Hit #2 Phosphorylation at S4 and T2 or S3* | 1 | Raptor | 150kDa | |
| 2 | 2 | 2.5544 | GP:AB091121 | (+) | 11 | K.TMPEVAELPVPSATSSK.K | ○ Hit #3 (II) | 1 | RNA polymerase I-associated factor PAF 49 | 44kDa | |
| 1 | 2 | 2.6949 | GP:AB099288 | 0 | 5,6 | R.TTNPYNTM.- | ○ | 1 | slingshot-2L | 158kDa | |
| 1 | 2 | 2.9905 | GP:AF057285 | (+) | 14 | R.TALPTS55*GELLELAGVEPAR.S | Phosphorylation at S1, S2, or S3 | 1 | epsin 1 | 63kDa | |
| 1 | 2 | 3.5878 | GP:AF062655 | 0 | 5,6 | R.S*PS*PAIPPPPPPPRR.R | ○ (III) | 2 | plenty-of-prolines-101 | 101kDa | |
| 1 | 2 | 3.5491 | GP:AF177346 | (+) | 20 | R.GPAAAPGAAS*PPAEPK.I | ○ | 1 | PLC-2/ubiquitin 2 | 67kDa | |
| 2 | 2 | 3.0492 | GP:AF187731 | 0 | 5,6 | R.AS*5*IDSANTELQTHDMISS*DEK.K | ○ Phosphorylation at S1, S2 and S5 or S6 (II) | 2 | 1 | LBALPS up-regulated | 317kDa |
| 1 | 2 | 3.2659 | GP:AF202893 | 0 | 5,6 | K.LQAENS*EET*DENEAEEEEER.D | ○ | 2 | kinesin-like protein kif21b | 186kDa | |
| 1 | 2 | 3.0214 | GP:AF307453 | (+) | 17 | K.SVQPEVELSGG55*GGDEGADES.R | ○ | 1 | neuron navigator 1 | 202kDa | |
| 1 | 2 | 2.9017 | GP:AF326555 | (+) | 16 | R.DSLEETDIDDIATEDKS*PIDT.- | ○ Hit #2 | 1 | phosphodiesterase 4B (Pde4b) | 82kDa | |
| 1 | 2 | 3.0521 | GP:AF338472 | 0 | 5,6 | R.SSS*5*SSSGVSPAVTPEK.M | ○ Phosphorylation at S2, S3 or S3 (III) | 1 | WRP/p140Rho-GAP | 124kDa | |
| 2 | 2 | 3.852 | GP:AF361882 | (+) | 15 | R.VDEPPQAVSLTPGGVSS5*ALSR.M | Phosphorylation at S2, S3 or S4 (II) | 1 | endothelial cell-selective adhesion molecule (ESAM) | 42kDa | |
| 2 | 2 | 3.3677 | GP:AF374476 | (+) | 15 | R.TSSLDT*ITGPVLTQGWPR.D | Phosphorylation at T1, S1 or S2 (II) | 1 | GIG18/teothymin | 47kDa | |
| 1 | 2 | 2.7111 | GP:AF404774 | 0 | 5,6 | R.TLS*PTPS*AEQYQDVR.D | ○ | 2 | actin-binding LIM protein 1 long isoform | 97kDa | |
| 1 | 2 | 2.8408 | GP:AF404774 | (+) | 17 | R.TLS*PTPS*AEQYQDVR.D | ○ (see doubly phosphorylated, III) | | actin-binding LIM protein 1 long isoform | 97kDa | |
| 1 | 2 | 2.6508 | GP:AF411837 | (+) | 17 | R.LQQQAALS*PTTAPAVSSVK | ○ Hit #3 | | transcription repressor p66 | 65kDa | |
| 1 | 2 | 3.0531 | GP:AF424697 | (+) | 14 | K.SASS*SEELINTLNFLEAQQ.D | Phosphorylation at S1, S2 or S3 | 1 | KIAA0903-like protein | 136kDa | |
| 2 | 2 | 3.412 | GP:AJ278891 | (+) | 19,20 | R.LEDNDSATS*EADAIAIAK.T | ○ | 1 | testis specific protein a14 | 41kDa | |
| 2 | 2 | 2.5585 | GP:AJ292467 | (+) | 18 | K.MKLT5*DAEDLSLESVCT*R.S | ○ Phosphorylation at T2 and T1 or S1 | 1 | 1 | WDR9 protein | 259kDa |
| 1 | 2 | 4.7113 | GP:AK001486 | (+) | 17 | K.NWEDEDFYDS*DDDTFLDR.T | ○ | 1 | similar to kanadaplin | 89kDa | |
| 3 | 2 | 2.8361 | GP:AK002671 | 0 | 3,4 | R.EQES*5*GEEDNLSPEER.E | ○ (II) | 2 | protein phosphatase 1, regulatory (inhibitor) subunit 2 | 23kDa | |
| 2 | 2 | 5.2089 | GP:AK003415 | (+) | 18 | R.SAS*PDDDLGSSNWEAADI.GNEER.K | ○ Hit #2 (D-III)(C-VIII) | 1 | small acidic protein | 20kDa | |
| 2 | 2 | 2.594 | GP:AK003638 | 0 | 7,8 | R.TEARS*5*DEENGPPSS*PDLDR.I | ○ | 3 | RIKEN clone:1110012122 | 27kDa | |
| 2 | 2 | 3.9027 | GP:AK003844 | (+) | 13 | R.SAPSS*APSTPLSDAPEFLSIPK.D | ○ | 1 | retinal degeneration B beta | 39kDa | |
| 1 | 2 | 2.6348 | GP:AK004073 | 0 | 9 | R.ENPPS*PPTS*PAAPQPR.E | ○ (II) | 2 | RIKEN clone:1110033123 hypothetical protein | 33kDa | |
| 4 | 2 | 2.6497 | GP:AK004312 | 0 | 7 | K.NSSLLSFD5*EDENE.- | ○ (B-1) | 1 | RIKEN clone:C920004D01 | 17kDa | |
| 2 | 2 | 2.8191 | GP:AK004332 | (+) | 16 | R.TAS*PVIALQNLSEDEALQR.A | ○ | 1 | RIKEN clone:1110066018 | 28kDa | |
| 1 | 3 | 3.791 | GP:AK004509 | (+) | 9 | R.ASG5*PPLLAPDPVLSLESEPLAEDGALGPPEIQGTAQPVK.R | Phosphorylation at S1 or S2* | 1 | TUG | 60kDa | |
| 1 | 2 | 3.4686 | GP:AK004582 | 0 | 5,6 | R.GPS*PAVPDTES*PVEMPEK.A | ○ (III) | 2 | RIKEN clone:4732427P14 | 93kDa | |
| 1 | 2 | 2.5168 | GP:AK004582 | (+) | 16 | R.GPS*PAVPDTES*PVEMPEK.A | ○ (see doubly phosphorylated) | | RIKEN clone:4732427P14 | 93kDa | |
| 2 | 2 | 3.6661 | GP:AK004678 | (+) | 19,20 | R.FDQLFDD55*DPFEVLA.K | ○ | 1 | hypothetical RNA binding protein RDA288 homolog | 45kDa | |
| 2 | 2 | 3.1042 | GP:AK004762 | (+) | 9 | R.SGSPGT*PAYPLSDLFFQSYQER.E | ○ | 1 | DNA segment, Chr 7, ERATO Doi 462 | 38kDa | |
| 1 | 2 | 3.1754 | GP:AK005027 | (+) | 16 | R.AGSGEDPVLAPSGT*PPSPDPETFGGR.V | ○ (II) | 1 | RIKEN clone:1300017A15 | 118kDa | |
| 2 | 2 | 3.3648 | GP:AK005039 | (+) | 15 | R.GAIS*AEVYTEDAASVYR.K | ○ | 1 | protein kinase, cAMP dependent regulatory, type 1, alpha | 46kDa | |
| 2 | 2 | 4.2333 | GP:AK005219 | (+) | 13 | K.VSTTTDPSV5*PAQAASFPFVDELSK.- | ○ | 1 | RIKEN clone:1500011L08 | 30kDa | |
| 2 | 2 | 2.6592 | GP:AK007793 | 0 | 7,8 | R.SSGTAPAPAS*PS*PEEPGGAEESV.R.V | ○ | 2 | spastic paraplegia 4 homolog | 61kDa | |
| 2 | 2 | 2.6253 | GP:AK007896 | (+) | 15 | K.NAIS*LPQLNQATYDSLVMGK.L | ○ | 1 | CDC42 effector protein (Rho GTPase binding) 1 | 43kDa | |
| 4 | 2 | 3.8346 | GP:AK008805 | (+) | 19,20 | K.NWEDDS*DEDMNSDR.F | ○ (VIII)(B-III) | 1 | telomerase binding protein, p23 | 19kDa | |
| 4 | 2 | 4.4944 | GP:AK008915 | 0 | 7 | R.VFQSQDEDEGS*ESED.- | ○ (V) | 1 | 60S ribosomal protein L22 | 14kDa | |
| 2 | 2 | 2.6021 | GP:AK009320 | (+) | 3,4 | K.LLLDPSS1*PTK.A | ○ (D-II) | 1 | RIKEN clone:2810468M23 | 18kDa | |

| | | | | | | | | | | |
|---|---|--------|-------------|-----|-------|---|--|---|---|--------|
| 3 | 3 | 3.8139 | GP-AK009414 | (+) | 8,9 | K.VTDALPEPEPAGAMAAS*EEGEEDEEEDLEAMQSR.L | ○ | 1 | Neuroendocrine Differentiation Factor homolog | 25kDa |
| 2 | 2 | 4.016 | GP-AK009420 | (+) | 18 | R.YGVYEDENYEVEVS*DEEIPFK.C | ○ | 1 | RIKEN clone:231002H19 | 39kDa |
| 1 | 3 | 5.3675 | GP-AK009972 | (+) | 16 | K.LQEFGGS*EEEEGNPSDEGMQSGPTQAPPR.E | ○(II) | 1 | Periodic tryptophan protein 1 homolog | 56kDa |
| 2 | 2 | 3.2633 | GP-AK010353 | (+) | 12 | K.EEENVDS*DEGEGLDLSDQWR.V | ○ | 1 | RIKEN clone:2410003C20 | 41kDa |
| 2 | 2 | 3.0337 | GP-AK010860 | (+) | 19,20 | R.TDKS*SASAPVDDPEAFPALA.- | ○Hit #2 | 1 | hypothetical RNA binding protein RDA288 homolog | 43kDa |
| 2 | 2 | 2.8111 | GP-AK011253 | (-) | 3,4 | K.FVWEVLQNAEES*EE*EGEES.- | ○Hit #2 | 2 | hypothetical eIF4-gamma-7-epsilon cont. protein similar to C-MYC TARGET JPO1 | 48kDa |
| 3 | 2 | 3.4211 | GP-AK011289 | (+) | 12 | R.ILGLSGLALPT*EEEEEEEEEDK.Y | ○ | 1 | mRNA (Guanine-7-)Methyltransferase (fragment) homolog | 44kDa |
| 2 | 2 | 2.7298 | GP-AK011300 | 0 | 5,6 | K.ASVAS*DPES*PPGGNEPAAASGQR.L | ○Hit #2 | 2 | mRNA (Guanine-7-)Methyltransferase (fragment) homolog | 53kDa |
| 2 | 2 | 4.3294 | GP-AK011300 | (+) | 21-22 | K.ASVASDPES*PPGGNEPAAASGQR.L | ○(see doubly phosphorylated, III) | 1 | mRNA (Guanine-7-)Methyltransferase (fragment) homolog | 53kDa |
| 2 | 2 | 4.4794 | GP-AK011300 | (+) | 17 | K.EFGEDLVEQNSVVDSS*PSK.K | ○ | 1 | mRNA (Guanine-7-)Methyltransferase (fragment) homolog | 53kDa |
| 3 | 2 | 5.7276 | GP-AK011303 | (+) | 10,11 | R.S*AEDLTDGSDYDILNAEQLK.K | ○(XIII)(D-II) | 1 | RIKEN clone:2610003C16 | 33kDa |
| 1 | 2 | 3.4639 | GP-AK011492 | (+) | 16 | R.IGELGAPEVWGLS*PK.N | ○(B-II) | 1 | RIKEN clone:2610020008 | 47kDa |
| 2 | 2 | 2.7972 | GP-AK012309 | (+) | 16 | R.ANSTS*DSMFTETPSVVK.N | ○Hit #3 | 1 | CRIB-containing BORG2 protein homolog | 27kDa |
| 2 | 2 | 2.5629 | GP-AK012804 | (+) | 5,6 | K.QLS*ETRISMS*LLYAPPLHS*K.Y | ○Hit #2 | 3 | RIKEN clone:2810024N24 | 29kDa |
| 2 | 2 | 3.6477 | GP-AK012822 | (+) | 16 | K.LGLSLTPEIVSTPSS*PEEEDK.S | ○(III) | 1 | RIKEN clone:2810026N18 | 37kDa |
| 2 | 2 | 2.994 | GP-AK013898 | (+) | 21-22 | R.DMQAWSAVGKTQGWARPSP*PR.R | ○(II) | 1 | RIKEN clone:3010024021 | 15kDa |
| 2 | 2 | 2.9442 | GP-AK017713 | (+) | 9 | K.S*LVGTPYWAPELISL.L | ○(II) | 1 | P21-activated kinase 4 (PAK-4) homolog | 65kDa |
| 4 | 2 | 4.0908 | GP-AK017729 | (+) | 17 | R.LAS*TDGVDYDLQFK.K | ○ | 1 | RIKEN clone:5730494N06 | 13kDa |
| 2 | 2 | 2.6772 | GP-AK018507 | (+) | 19,20 | R.YAGLDDTDS*EDELPGWEEER.T | ○ | 1 | WW-domain oxidoreductase | 46kDa |
| 2 | 2 | 2.5473 | GP-AK019878 | 0 | 5,6 | R.NPS*PPPTCGS*EDEDLGGDR.I | ○Hit #2 | 1 | ARM repeat structure containing protein | 53kDa |
| 4 | 2 | 3.6731 | GP-AK020110 | (+) | 17 | R.LPS*IVVETEGESEGELR.W | ○(III) | 1 | limb bud and heart (Lhb) | 12kDa |
| 2 | 2 | 3.9595 | GP-AK020775 | (+) | 14 | K.AATPVVVTAAAPAMEGPSVSP*PGPSR.S | ○Hit #2 | 1 | NCS tripartite motif-containing 35 | 59kDa |
| 2 | 2 | 4.0439 | GP-AK021409 | (+) | 21,22 | R.VAEPES*EAEPAAEGR.Q | ○ | 1 | RIKEN clone:1810057P16 | 19kDa |
| 4 | 3 | 4.1437 | GP-AK028385 | (+) | 16 | R.LLTPNPGVGTQVGTSPAPTT*PTEEDLR.R | ○ | 1 | RIKEN clone:3830431 | 66kDa |
| 2 | 2 | 4.3365 | GP-AK028838 | (+) | 19,20 | R.EVVDQDEENS*EEDEMDSGTMVR.A | ○(A-1) | 1 | serine/threonine kinase 4 | 55kDa |
| 2 | 2 | 3.6658 | GP-AK030749 | (+) | 12 | R.ETFAS*DTNEALASLDEAQEGPGETK.L | Phosphorylation at T1 or S1 | 1 | phosphorylated adaptor for RNA export | 43kDa |
| 2 | 2 | 3.767 | GP-AK031203 | (+) | 19,20 | R.GPDEAIEDGEEGS*EDDAEWVTK.D | ○ | 1 | EH-domain containing protein 2 | 61kDa |
| 2 | 2 | 3.5358 | GP-AK031297 | (+) | 19,20 | R.LPATS*AESEAVISNGEH.- | Phosphorylation at T1 or S1 | 1 | 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 | 58kDa |
| 1 | 2 | 2.6302 | GP-AK031472 | 0 | 5,6 | R.SVAS*NQS*EMEYSSLDQMPK.E | ○(II) | 2 | IMAGE:3985250/P30 DBC PROTEIN homolog | 103kDa |
| 2 | 2 | 3.1461 | GP-AK031472 | (+) | 16 | R.SVAS*NQSEMEYSSLDQMPK.E | ○(see doubly phosphorylated, II) | 1 | IMAGE:3985250/P30 DBC PROTEIN homolog | 103kDa |
| 1 | 3 | 3.6945 | GP-AK031648 | (+) | 19,20 | K.VLSSSTNNQVAEAAEAEETPDS*PGVEK.H | ○ | 1 | RIKEN clone:6030468D24 | 95kDa |
| 2 | 2 | 3.9405 | GP-AK031790 | (+) | 18 | K.TEDGGWEWS*DEDFEESSEGR.A | ○ | 1 | oxidative-stress responsive 1 homolog | 52kDa |
| 2 | 2 | 4.4526 | GP-AK031877 | (+) | 14 | K.EPLS*DEDEEDNDVDEIFSEFR.F | ○(II)(C-II)(D-I) | 1 | chloride channel, nucleotide-sensitive, 1A | 27kDa |
| 2 | 2 | 2.6842 | GP-AK032027 | 0 | 7,8 | R.MLQALS*PKQS*PVSPT*P.R.S | ○Hit #2 | 3 | phosphate cytidylyltransferase 1, choline, beta isoform | 42kDa |
| 2 | 2 | 4.1209 | GP-AK032569 | (+) | 13 | R.VDSS*VEEDELMLTESK.S | ○Hit #2 (III) | 1 | hypothetical alpha/beta-Hydrolase | 54kDa |
| 1 | 2 | 3.0522 | GP-AK032651 | 0 | 5,6 | R.ASAVDPSSVDPPS*DPSP*ADR.I | ○ | 2 | RIKEN clone:6530402L19 | 66kDa |
| 2 | 2 | 2.6878 | GP-AK034681 | (+) | 12 | R.T*WTLGTPPEYLAEPVQSK.G | Phosphorylation at T1 or T2 | 1 | PKA-related protein kinase | 40kDa |
| 3 | 2 | 3.5935 | GP-AK034731 | (+) | 12 | R.S*PVSLAAQGIPLAQLTK.A | ○ | 1 | hypothetical BTB/POZ domain containing protein similar to actin filament associated protein | 32kDa |
| 1 | 2 | 3.244 | GP-AK035227 | (+) | 10 | R.LS*QEQKNSDS*DSLGMNDSGSLTGR.R | ○(III) | 2 | Sporulation-induced transcript 4-associated protein (SAPLB) homolog | 52kDa |
| 2 | 2 | 3.5073 | GP-AK035236 | (+) | 16 | R.IQQFDGGS*DEEDWEEK.H | ○ | 2 | RIKEN clone:9530004E16 | 95kDa |
| 4 | 2 | 2.7022 | GP-AK035238 | (+) | 18 | R.SFS*MQDLTTR.G | ○ | 1 | RIKEN clone:9530004E16 | 22kDa |
| 1 | 2 | 2.6014 | GP-AK036331 | 0 | 5,6 | R.GSS*QPNLSTSYSE*EQEYK.A | ○Hit #3 | 2 | cpin 2 | 62kDa |
| 2 | 2 | 2.7696 | GP-AK036331 | (+) | 19,20 | R.GSS*QPNLSTSYSE*EQEYK.A | ○(see doubly phosphorylated) | 1 | cpin 2 | 62kDa |
| 2 | 2 | 2.5429 | GP-AK044765 | (+) | 19,20 | R.DAS*PPPEPASTGILDK.K | ○ | 1 | RIKEN clone:A930041A10 | 45kDa |
| 2 | 2 | 3.0969 | GP-AK044889 | (+) | 12 | K.TTYLEDLPPPEYEL*PSK.L | ○ | 1 | RIKEN clone:B130010H02 | 53kDa |
| 3 | 2 | 3.0783 | GP-AK045250 | 0 | 3,4 | K.YAALS*VDGEDEDEDDCTE.- | ○ | 1 | eukaryotic initiation factor 4B | 69kDa |
| 3 | 2 | 3.7293 | GP-AK045977 | 0 | 5,6 | R.KLDAES*DGST*EETDESET.- | ○Phosphorylation at S1 and S2 or T1 | 1 | RIKEN clone:B230329H23 | 38kDa |
| 2 | 2 | 3.9746 | GP-AK046322 | (+) | 13 | K.AFT*FDDDEDELSQLK.E | ○(III) | 1 | hypothetical Aminoacyl-transfer RNA synthetases class-II protein | 57kDa |
| 1 | 2 | 3.6388 | GP-AK047363 | (+) | 16 | R.NVTAS*DEEEAGLFDAGK.A | ○(III) | 1 | RIKEN clone:B930053E03 | 56kDa |
| 1 | 3 | 4.1314 | GP-AK048691 | 0 | 1,2 | R.VDLAGS*PEQEAAGLFDPPQQCCPPGAS.- | ○ | 1 | activator of G-protein signaling 3 homolog | 74kDa |
| 1 | 2 | 4.2366 | GP-AK049495 | (+) | 16 | R.VFDSS*DDIEEEEADEK.E | ○ | 1 | RIKEN clone:C430017F24 | 86kDa |
| 2 | 2 | 2.8369 | GP-AK051665 | 0 | 5,6 | R.DAS*PTPST*DAEYPANGSGADR.I | ○Phosphorylation at S1 and S2 or T2 | 1 | SH2/SH3 adaptor protein (mNck-beta) | 43kDa |
| 2 | 2 | 3.3071 | GP-AK051665 | (+) | 19,20 | R.DAS*PTPSTDAEYPANGSGADR.I | ○Hit #2 (see doubly phosphorylated, III) | 1 | SH2/SH3 adaptor protein (mNck-beta) | 43kDa |
| 2 | 2 | 3.8784 | GP-AK051665 | (+) | 18 | R.DASPT*PSTDAEYPANGSGADR.I | ○Hit #2 (III) | 1 | SH2/SH3 adaptor protein (mNck-beta) | 43kDa |
| 3 | 2 | 2.8026 | GP-AK053310 | 0 | 3,4 | K.LGGS*PTNGNSAAPSPESEP.- | ○(III)(D-1) | 1 | RIKEN clone:E130009D24 | 19kDa |
| 4 | 2 | 3.2879 | GP-AK053310 | 0 | 5,6 | K.LGGSPT*NGNSAAPSPESEP.- | ○ | 1 | RIKEN clone:E130009D24 | 19kDa |
| 1 | 3 | 3.4813 | GP-AK053844 | (+) | 16 | R.SPEQPAES*DTPS*EELSGHGPAEASGAAGDPADPADPATK.L | ○ | 2 | A kinase (PRKA) anchor protein (gravin) 12 | 181kDa |
| 3 | 3 | 3.5395 | GP-AK054279 | (+) | 10,11 | R.TNS*EQVDEADVDTAMASLDEQREAAQPPSP*PR.S | ○Phosphorylation at S4 and T1 or S2 | 1 | pVHL-interacting deubiquitinating enzyme 2 (Vdu2) | 102kDa |
| 2 | 2 | 2.6395 | GP-AK077263 | (+) | 12 | R.DVS*PIVEIPDAFIQAAR.R | ○ | 1 | RIKEN clone:5031433E12 | 46kDa |
| 3 | 2 | 3.3986 | GP-AK078345 | 0 | 3,4 | K.VENMSSNQDGNDS*DEFM.- | ○(III) | 1 | RIKEN clone:6530403I23 | 25kDa |
| 2 | 2 | 4.1974 | GP-AK078816 | (+) | 17 | K.VVDYSQFQES*DDADEYGR.D | ○ | 1 | nuclear ubiquitously casein and cyclin-dependnet kinases substrate | 26kDa |
| 4 | 2 | 2.7962 | GP-AK080452 | (+) | 18 | K.GFGVENPVLPEYS*PPASMSVMK.N | ○ | 1 | RIKEN clone:A730017C20 | 17kDa |
| 2 | 2 | 3.088 | GP-AK082771 | (+) | 11 | K.AGS*PGSEVTLQQLLESNK.L | ○(III)(C-III)(A-1) | 1 | RIKEN cDNA A430106J12 | 82kDa |
| 1 | 2 | 3.7235 | GP-AK082771 | (+) | 16 | K.SSS*QENLLDEVMS.K | ○(II) | 1 | RIKEN cDNA A430106J12 | 82kDa |
| 2 | 2 | 3.4872 | GP-AK082775 | (+) | 19,20 | R.DLFSLDSEGPSPT*PPLR.S | ○ | 1 | RIKEN clone:C330013H05 | 28kDa |
| 2 | 3 | 4.5802 | GP-AK082912 | (+) | 13 | R.EDPGQVSSFFNSEAES*GEDEDIVGMPMAKG | ○ | 1 | RIKEN clone:C430016O19: similar to Protein Phosphatase 4 regulatory subunit 2 | 39kDa |
| 2 | 2 | 2.6425 | GP-AK083747 | (+) | 19,20 | K.NS*DSNLLSLDGLDNEVK.V | ○ | 1 | RIKEN clone:ID030074E01 | 93kDa |
| 2 | 3 | 4.1211 | GP-AK087895 | 0 | 5,6 | K.EGS*LGDELPLGYAEPEPQEGASAGAPSP*LELASR.S | ○Phosphorylation at S1 and S3* or T1 | 1 | predominantly fetal expressed T1 domain (Pfet1) | 36kDa |
| 3 | 3 | 4.5096 | GP-AK087895 | (+) | 10,11 | K.EGSLGDELPLGYAEPEPQEGASAGAPSP*LELASR.S | Phosphorylation at S3 or T1*(see doubly phosphorylated, B-1) | 1 | predominantly fetal expressed T1 domain (Pfet1) | 36kDa |
| 1 | 2 | 2.5636 | GP-AK088527 | (+) | 16 | K.DTAATFQSDVGS*PQAEQSPLETSK.E | ○(II) | 1 | RIKEN cDNA 1110054L24 | 55kDa |

| | | | | | | | | | | |
|---|---|--------|--------------|-----|-------|---|--|---|--|-----------|
| 1 | 2 | 2.6588 | GPN-AK029763 | (+) | 19 | R.GDNAS*PSPSGTPLVR.A | ○ | 1 | RIKEN clone:4930534J06: similar to superkiller viralicidic activity 2-like protein | 138kDa |
| 1 | 2 | 2.7946 | GPN-AK029901 | (+) | 17 | R.DLS*PTLLDNSAAK.Q | ○ | 1 | RIKEN clone:4931432P15 | 70kDa |
| 1 | 2 | 2.6293 | GPN-AK029945 | (+) | 18 | K.TASESINLSEAGS*VK.K | ○ | 1 | Riken clone:4932409G17: similar to RESTIN | 93kDa |
| 1 | 2 | 3.166 | GPN-AK030909 | (+) | 18 | K.STETSDFENIES*PLNER.G | ○(II) | 1 | ubiquitin specific protease 47 | 79kDa |
| 1 | 2 | 2.5354 | GPN-AK031049 | (+) | 17 | R.AASAAGAS*PAATPAAPESGTIPK.K | ○ | 1 | RIKEN clone:5832437L22 alkyl-dihydroxyacetonephosphate synthase homolog | 72kDa |
| 1 | 2 | 2.5781 | GPN-AK031348 | (+) | 18 | K.LSQVNES*DADDEDNYGAR.L | ○ | 1 | RIKEN clone:6030410K14 product: hypothetical ATP/GTP-binding motif A | 49 kDa |
| 1 | 3 | 3.4683 | GPN-AK032060 | (+) | 17 | K.TQDQEEYVTT*PGAEVEDPQK.A | ○(II) | 1 | ankyrin 2, neuronal long splice form | 117kDa |
| 1 | 3 | 3.3157 | GPN-AK032300 | (+) | 18 | R.SQERPPPTPVSSESLPTLSDSDPVVADS*DDAGS*ESAAR.D | ○ Phosphorylation at S7 and S8 or S9 | 1 | hypothetical metallo-hydrolase/oxidoreductase | 103kDa |
| 1 | 3 | 4.1738 | GPN-AK033182 | (+) | 13 | K.GPENPQVEVLS*EEEGEEEEEDLSLAEK.Y | ○ | 1 | RIKEN clone:8030454G07 | 15kDa |
| 1 | 2 | 3.2814 | GPN-AK035833 | (+) | 17 | R.AAS*PPASADLIEQQQK.R | ○(II) | 1 | AK05833_1 hypothetical proline-rich protein | 45 kDa |
| 1 | 2 | 4.6905 | GPN-AK043551 | (+) | 13 | R.VLNTGS*DVVEAVADALLGDIR.T | ○(III) | 1 | RIKEN clone:A830007J18 | 141 kDa |
| 1 | 2 | 3.1996 | GPN-AK045159 | (+) | 17 | R.AES*PETSAVESTQSTPQK.G | ○Hit #2 | 1 | RIKEN clone:B130042B12 (AIPSPAP-2) | 92 kDa |
| 1 | 2 | 3.0518 | GPN-AK045250 | (+) | 12 | K.S**PPYTAFLGNLPYDVVTEDSIK.D | ○Hit #3 | 1 | eukaryotic initiation factor 4B | 69kDa |
| 1 | 2 | 3.7726 | GPN-AK045438 | (+) | 18 | R.VNOSALEAVTPS*PSFQQR.H | ○Hit #2 (II) | 1 | adaptor protein APPL (signaling adaptor protein DIP13alpha) homolog | 72 kDa |
| 1 | 2 | 2.8414 | GPN-AK046142 | (+) | 18 | K.TP**PEPAEVETR.K | ○ | 1 | RIKEN clone:B230344L17 (HLS7-IPK) | 61 kDa |
| 1 | 3 | 5.0031 | GPN-AK049311 | (+) | 15 | R.YMAENPTAGVVEEEDNLVDS*DGNPIAPSK.K | ○ | 1 | RNA helicase-related protein homolog | 89kDa |
| 1 | 2 | 2.5022 | GPN-AK049446 | (+) | 20 | K.AAPAIAT*FNNQPSGTPOCTVGEK.H | ○ | 1 | RIKEN clone:C430013M08 | 30kDa |
| 1 | 2 | 2.8785 | GPN-AK051354 | 0 | 13 | R.TSS*KESS*PVPS*PTLDR.K | ○ | 3 | beta-spectrin 2 | 57kDa |
| 1 | 2 | 2.5609 | GPN-AK051354 | (+) | 19 | R.TSS*KESS*PVPS*PTLDR.K | ○(see triply phosphorylated) | | beta-spectrin 2 | 57kDa |
| 1 | 2 | 2.9976 | GPN-AK051735 | (+) | 17 | R.WLDES*DAEMELR.A | ○ | 1 | B-IND1 protein similarity to eIF4GII | 23-43 kDa |
| 1 | 2 | 3.2763 | GPN-AK053840 | (+) | 17 | R.TPSAATPAASS*PSSALATPAK.H | ○ | 1 | SRY-box containing gene 4-unamed | 31 kDa |
| 1 | 2 | 3.1124 | GPN-AK053844 | (+) | 17 | K.GPSEAPQEAEEAGATS*DGEK.K | ○ | 1 | A kinase (PRKA) anchor protein (gravin) 12 | 181kDa |
| 1 | 3 | 4.4074 | GPN-AK075690 | (+) | 18 | R.GEIPGLQDWEEDS*EADELGETLPDSTPLGLYLK.S | ○ | 1 | intermediate filament protein nestin (Nes) | 202kDa |
| 1 | 3 | 4.9155 | GPN-AK075999 | (+) | 17 | K.EGVILTNENAS*PEQGDEDAK.Q | ○(II) | 1 | hypothetical NOL1/NOP2/sun family containing protein | 77kDa |
| 1 | 2 | 3.2709 | GPN-AK080419 | (+) | 13 | R.KPSPT*QAATPALDPLPSVPAPATL- | Phosphorylation at S1 or T1 | 1 | negative elongation factor b (nef-b) | 66 kDa |
| 1 | 3 | 3.367 | GPN-AK082771 | (+) | 17 | R.LPVSVDSS*PTTAGSSSTTASNVNK.V | ○ | 1 | mKIAA1212 protein | 82kDa |
| 1 | 2 | 2.7427 | GPN-AK083499 | (+) | 17 | R.LGSSGLGS*ASSIQAAR.Q | ○ | 1 | RIKEN clone:D030032D21 | 44kDa |
| 1 | 2 | 4.0949 | GPN-AK088465 | (+) | 17 | K.VAYIPDETAQQNPS*PQLR.G | ○(II) | 1 | IGF-1 (mRNA) binding protein 3 | 64 kDa |
| 1 | 2 | 3.1225 | GPN-AK088766 | (+) | 19 | R.LEREDS*S*EEEEIIDDEIEER.R | ○(II) | 2 | microfibrillar-associated protein 1 | 59kDa |
| 1 | 2 | 3.4039 | GPN-AK088774 | (+) | 14 | K.LENEDS*DEIEDVLYSPQMLK.L | ○(II) | 1 | cytosolic beta-N-acetylglucosaminidase /meningoma expressed antigen 5 | 103 kDa |
| 1 | 2 | 3.6116 | GPN-AK090123 | (+) | 18 | K.VSS*PVLETVQQR.T | ○Hit #2 | 1 | RNAbinding protein homolog--RCB-0545 OHTA | 283 kDa |
| 2 | 2 | 2.986 | GPN-AY345342 | (+) | 15 | R.IES*PLETSAQNSHASMTVEV.T | ○(II) | 1 | plasticity-related protein 3 | 36kDa |
| 1 | 3 | 3.4257 | GPN-BC037112 | (+) | 14 | R.NSPT*GLAPLALS*PSALSAPTPLHPLNLAAPSPFK.T | ○ Phosphorylation at S2 and S1 or T1 | 1 | IMAGE:5371896 | 104kDa |
| 1 | 2 | 2.5965 | GPN-BC040746 | (+) | 17 | K.SVPTVDS*GNEDDSSEK.I | ○(VII) | 1 | IMAGE:3498498 | 46 kDa |
| 1 | 2 | 2.7697 | GPN-BC043939 | (+) | 16 | K.QAQSS*TEIPLQAESGGQTEEEAAK.D | Phosphorylation at S1* or S2 | 1 | A kinase (PRKA) anchor protein (gravin) 12 | 181kDa |
| 1 | 3 | 3.9291 | GPN-BC049942 | (+) | 17 | R.LAEAPSPAPTPSPITLEDGLOTSASPGRLS*PDFVEELR.T | ○ | 1 | scribble homolog 1 | 43kDa |
| 1 | 3 | 3.3518 | GPN-BC053918 | (+) | 14 | K.GQLISS*PTFTAPAAFGEAAPLVK.S | Phosphorylation at S1, S2, T1 or T2 | 1 | Chr X, Immunex 50, expressed, mRNA | 23kDa |
| 1 | 2 | 2.7338 | GPN-BC056373 | (+) | 13 | R.GGGS*VDETLFALPAASEPVPSSAEK.I | Phosphorylation at S1, S2 or T1(II) | 1 | nogo-A mRNA/RTN4 | 127kDa |
| 1 | 2 | 2.8785 | GPN-BC057037 | (+) | 15 | R.DLS*PEGPAPLTHEELDLR.L | ○ | 1 | IMAGE:5702855 | 108 kDa |
| 1 | 2 | 3.3143 | GPN-BC057044 | (+) | 15 | R.SVATGPMT*PQAAAPVPPVPEVR.V | ○ Phosphorylation at T1 or T2 (II)(B-1) | 1 | G protein-regulated inducer of neurite outgrowth 1 | 95 kDa |
| 1 | 2 | 3.4266 | GPN-BC057052 | (+) | 17 | K.GSNPFEEDEELAT*PEAEEK.V | ○ | 1 | IMAGE:6822067 | 81 kDa |
| 1 | 2 | 3.0322 | GPN-BC058672 | (+) | 18 | R.AAGALGSAGSGS*MPNLAAR.S | ○ | 1 | similar to NITZIN | 115kDa |
| 1 | 2 | 4.0077 | GPN-BC060694 | (+) | 16 | K.AGPLGGSSV*EEEEEGGGGGR.K | Phosphorylation at S1* or S2 | 1 | nectin-1 | 57kDa |
| 1 | 2 | 2.5895 | GPN-BC061473 | 0 | 3,4 | K.SLAALS*RVSG*GNVSK.E | ○ | 3 | expressed sequence AU067695 | 52kDa |
| 1 | 2 | 3.2038 | GPN-BC063094 | (+) | 16 | K.GGVFEALIQDD*EEEEEEENR.V | ○(B-II) | 1 | ATP-binding cassette, sub-family F | 212kDa |
| 1 | 2 | 2.6795 | GPN-BC063094 | 0 | 5,6 | K.QLS*VPAS*DEEDEVPAPIPR.G | ○ | 2 | ATP-binding cassette, sub-family F | 212kDa |
| 2 | 2 | 3.8173 | GPN-BC063386 | (+) | 13 | R.ATLS*DSEIETNSATSATFGK.A | Phosphorylation at T1 or S1 | 1 | MAP-kinase activating death domain | 173kDa |
| 1 | 2 | 3.079 | GPN-BC064442 | (+) | 16 | K.SAST*DLGTADVVLGR.V | Phosphorylation at S1*, S2 or T1 | 1 | hypothetical R3H domain/Serine-rich region/Glutamine-rich region cont protein | 107kDa |
| 2 | 2 | 5.1823 | GPN-BC064783 | (+) | 19,20 | R.DLRYRLS*SDDLSDVGDV.S | ○Hit #2 (XXIII)(D-1) | 1 | double cortin and calcium/calmodulin-dependent protein kinase-like 1 | 40kDa |
| 1 | 2 | 3.626 | PIR2-A55817 | (+) | 18 | R.DLSLDLQDIS*DSER.K | ○ | 1 | cyclin-dependent kinase p130-PITSLRE | 91 kDa |
| 2 | 3 | 4.1747 | PIR2-A60670 | 0 | 3,4 | R.LPPTGEVYVQTPGAGQGTPESSGPLT*P- | ○(III) | 1 | beta-2 adducin | 63kDa |
| 1 | 3 | 4.7835 | PIR2-JC4978 | (+) | 14 | K.EVDPSTGELQSLQMPSESGS*SLDPSQEGPTGLK.E | Phosphorylation at S4 or S5--see below (B-1) | 1 | oxidative stress protein A170 | 48kDa |
| 2 | 3 | 5.2586 | PIR2-JC5630 | (+) | 19,20 | K.SAEPLANTVLASET*EEEGNAQALGPTAK.S | ○ | 1 | Treacher Collins Franceschetti syndrome 1, homolog | 135kDa |
| 1 | 2 | 4.6023 | PIR2-JC5662 | 0 | 5,6 | R.GGS*SGEELDEEPEVK.K | ○(VII) | 2 | hepatoma-derived growth factor-related protein 2 | 75kDa |
| 1 | 2 | 3.7666 | PIR2-JC5930 | 0 | 5,6 | R.ADT*PS*GDEQEPNGALDSK.G | ○(II) | 2 | serine/arginine-rich protein specific kinase 1 (SRPK1) | 73kDa |
| 1 | 3 | 6.1455 | PIR2-JC7862 | (+) | 14 | R.QQPASESPPT*DEAAGSGGVEVQGTEDAEEADAEGPEPEVR.A | ○ | 1 | eukaryotic initiation factor 3 subunit, p116 | 91kDa |
| 2 | 3 | 4.274 | PIR2-T30827 | (+) | 11 | K.VQGEAVSNIQENTQPT*VQEESEEEVDETVGEVK.D | ○(II) | 1 | nascent polypeptide-associated complex alpha chain, non-muscle splice form | 23kDa |
| 3 | 3 | 7.0322 | PIR2-T30827 | (+) | 13 | K.VQGEAVSNIQENTQPTVQEESEEEVDETVGEVK.D | ○(XXXX)(B-XXVIII) | 1 | nascent polypeptide-associated complex alpha chain, non-muscle splice form | 23kDa |
| 1 | 2 | 3.6587 | PIR2-T34101 | (+) | 13 | K.LSYAS*AESLETMSEAEPLGFSR.M | Phosphorylation at S1 or S2 | 1 | neural-specific protein (hyp) | 131kDa |
| 1 | 2 | 3.3949 | PIR2-T34188 | (+) | 18 | K.SPAPSNPTLS*PSTPAK.T | Phosphorylation at S3 or T1 | 1 | Myb-binding protein-160 | 152kDa |
| 1 | 2 | 3.2879 | PIR2-T42719 | (+) | 17 | K.GGEFDEFVNDI*DDDLVSK.K | ○ | 1 | TPR-containing SH2-binding protein/cyclic gmp inhibited phosphodiesterase b | 133kDa |