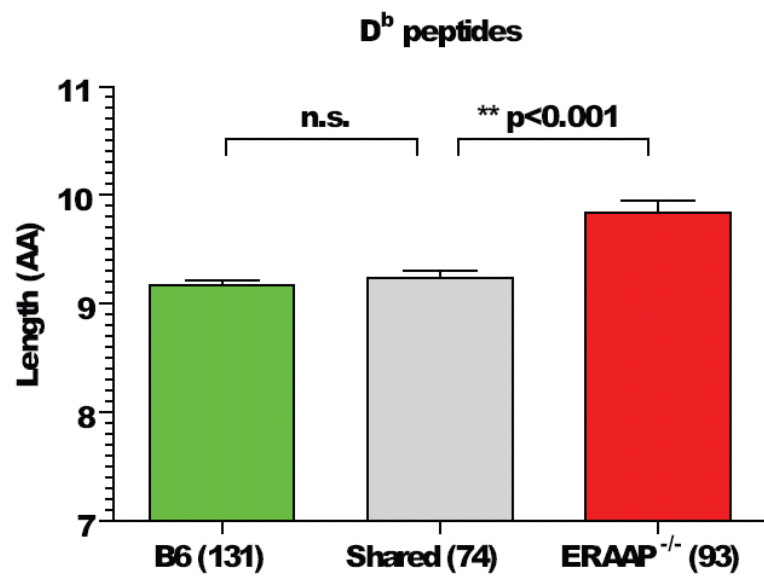
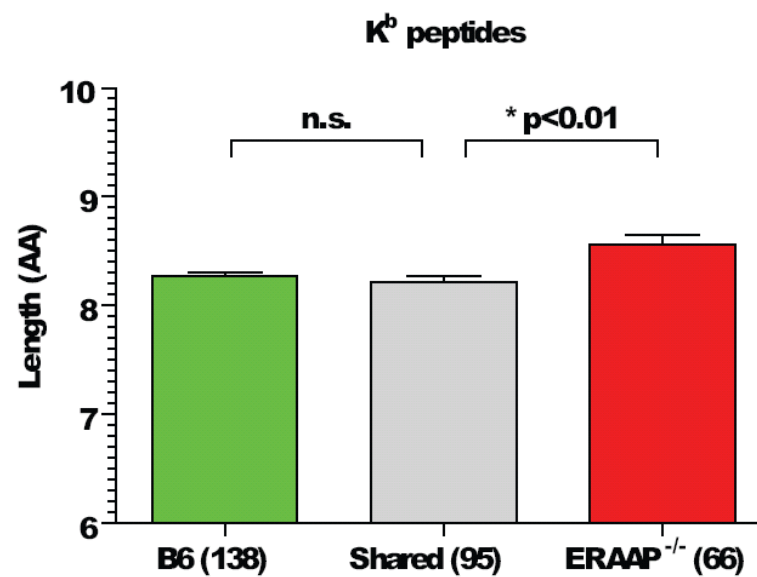


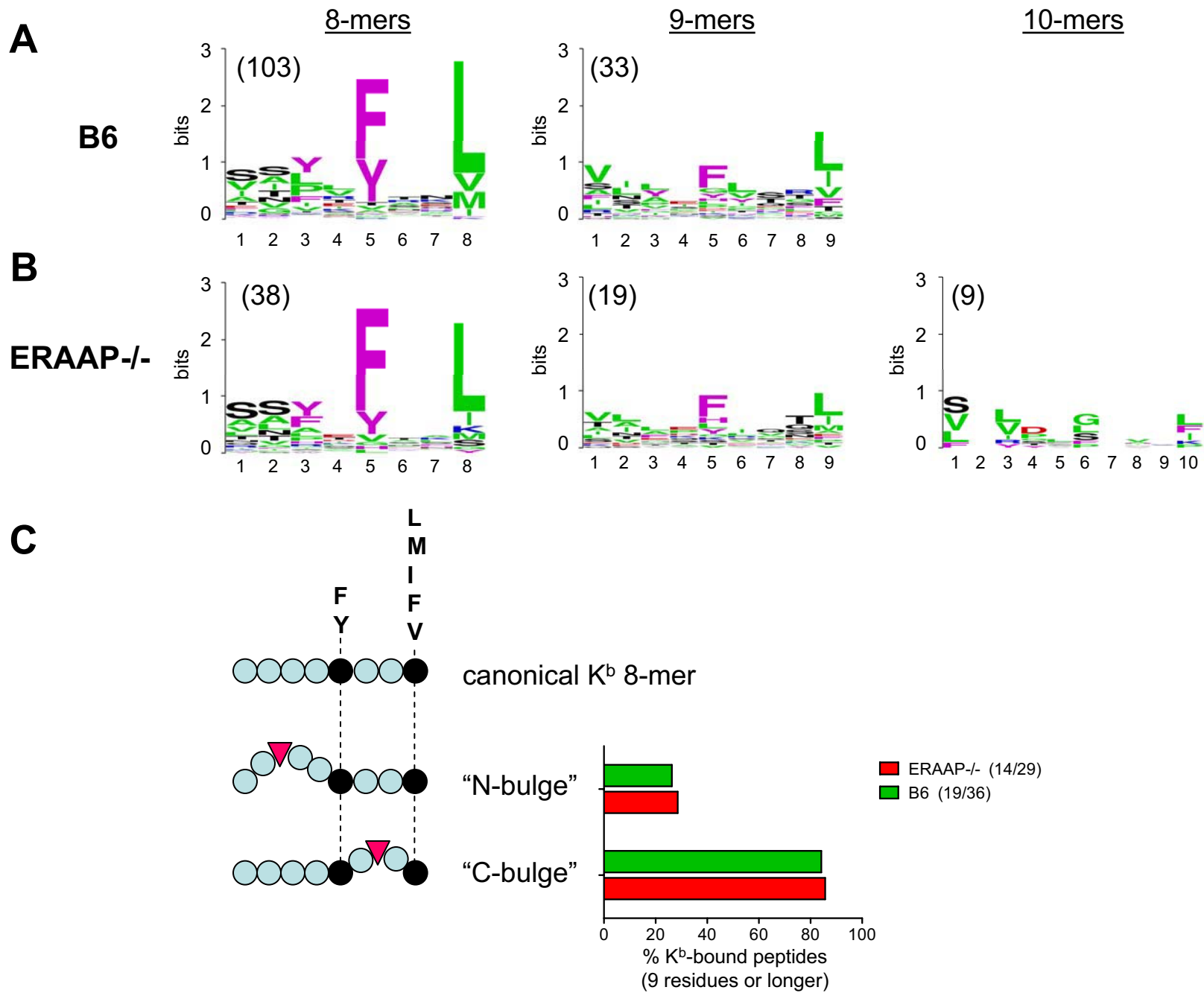
**A**



**B**

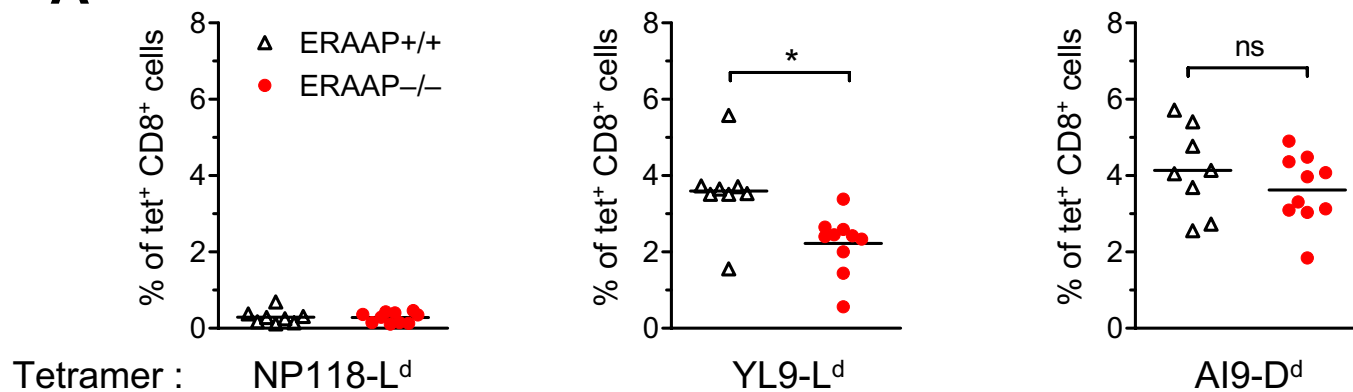


Blanchard *et al*, Sup. Fig. S2

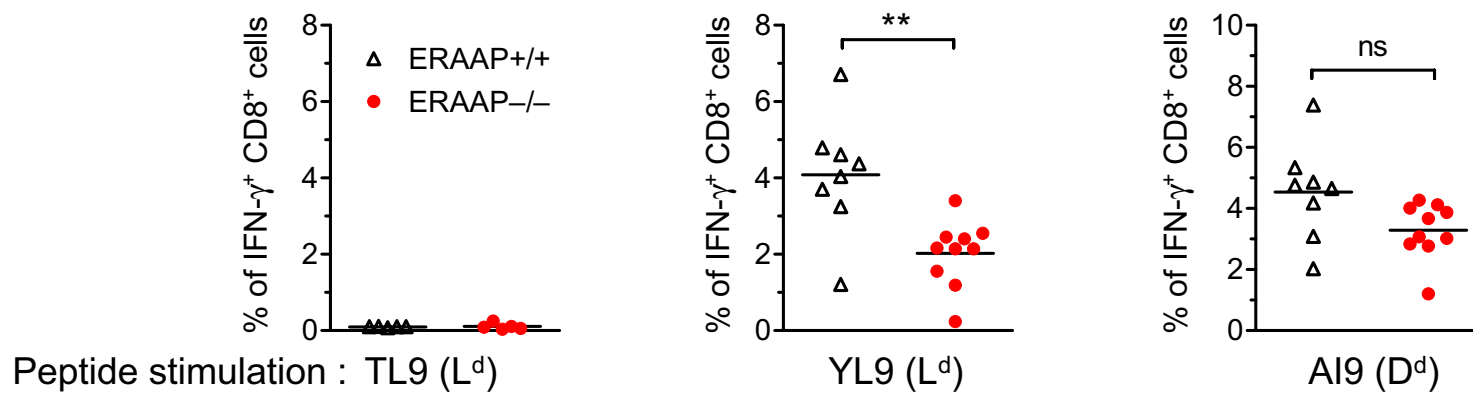


Blanchard *et al*, Sup. Fig. S3

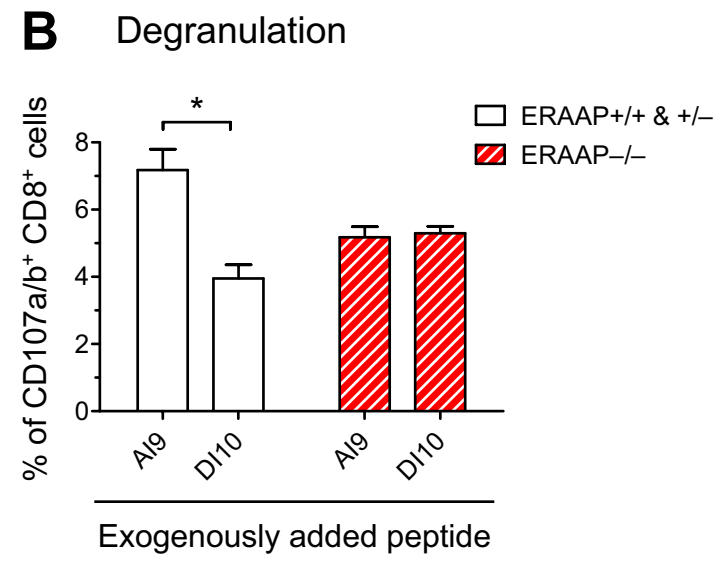
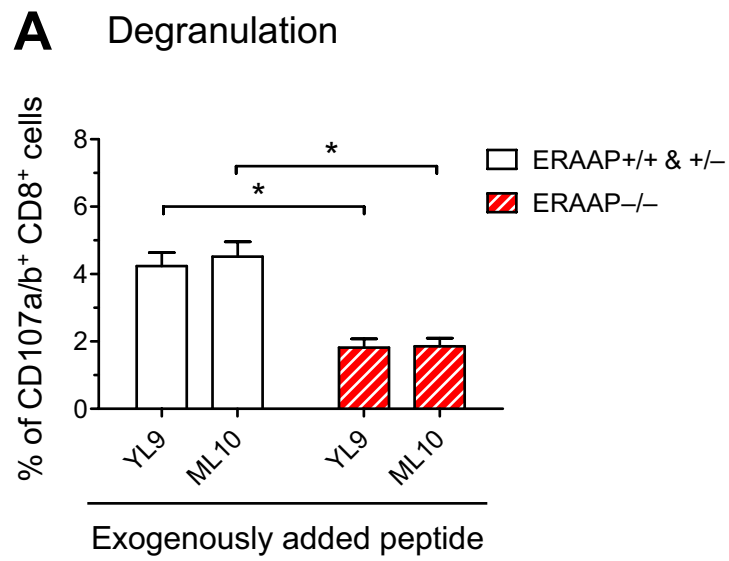
**A**



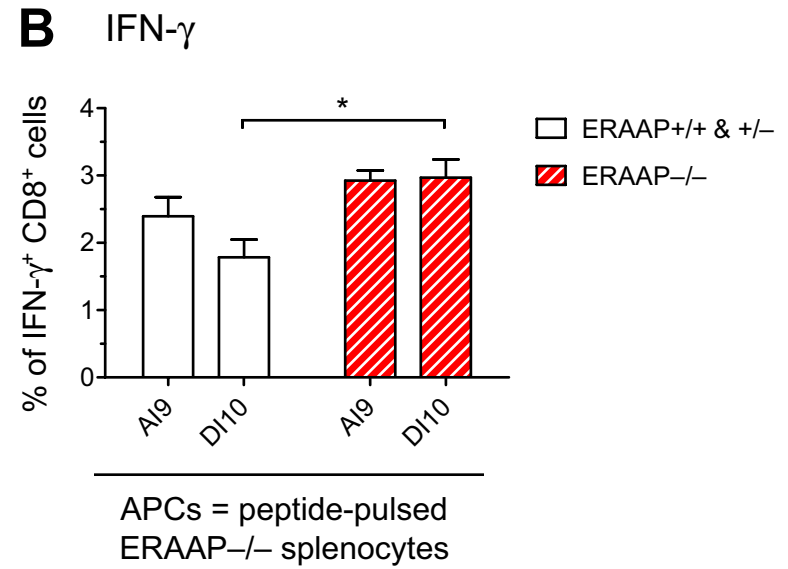
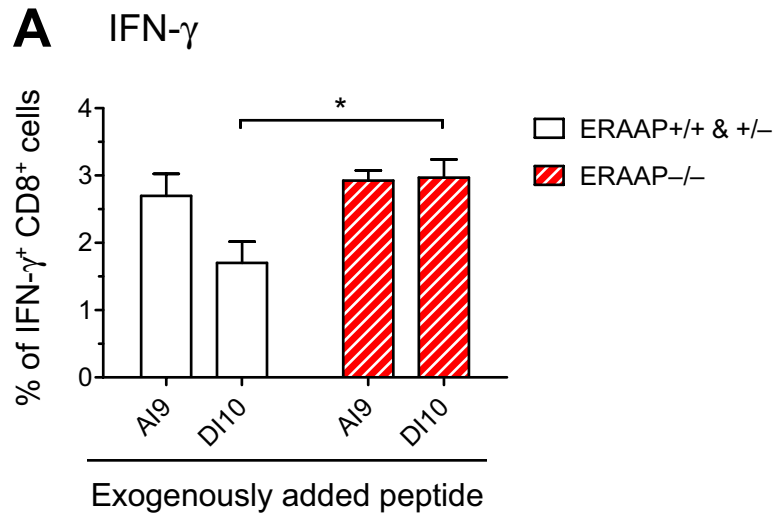
**B**



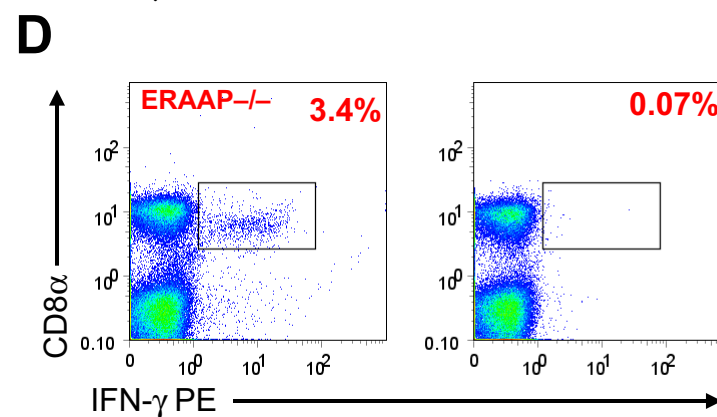
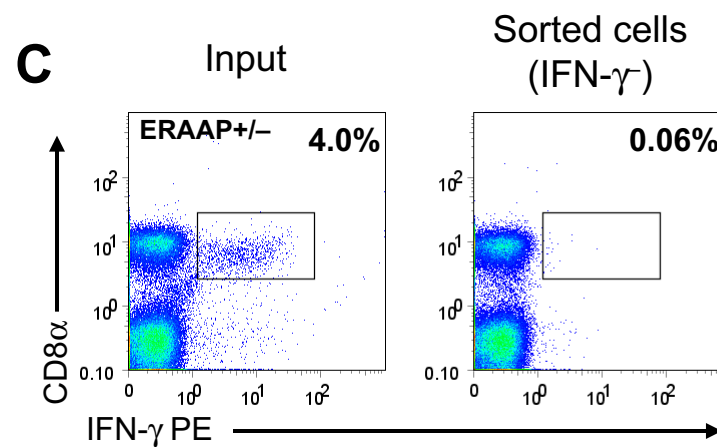
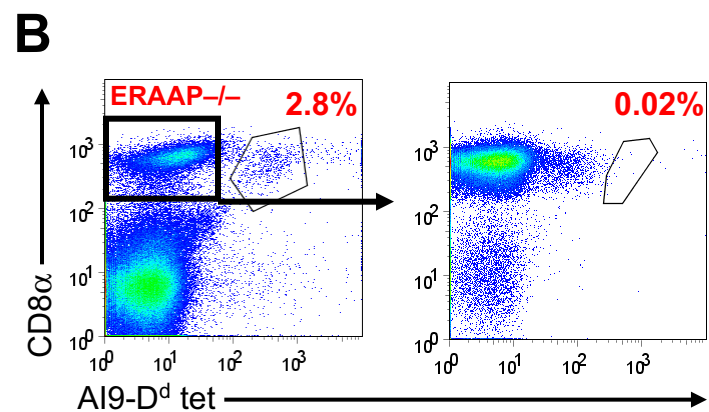
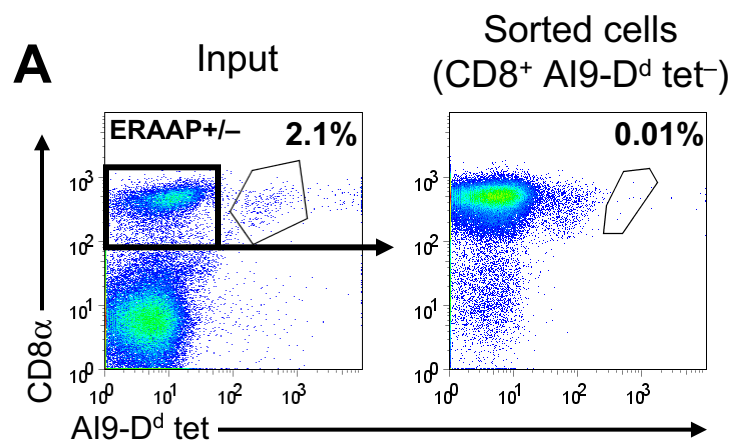
Blanchard *et al*, Sup. Fig. S4



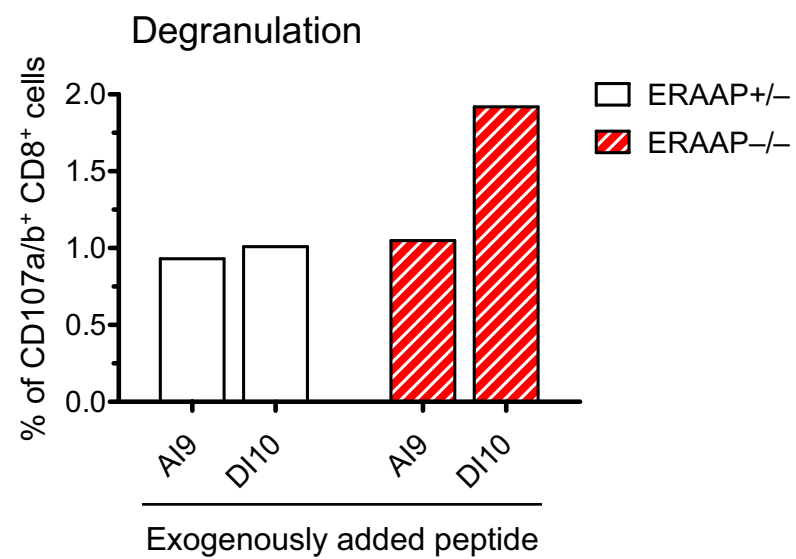
Blanchard *et al*, Sup. Fig. S5

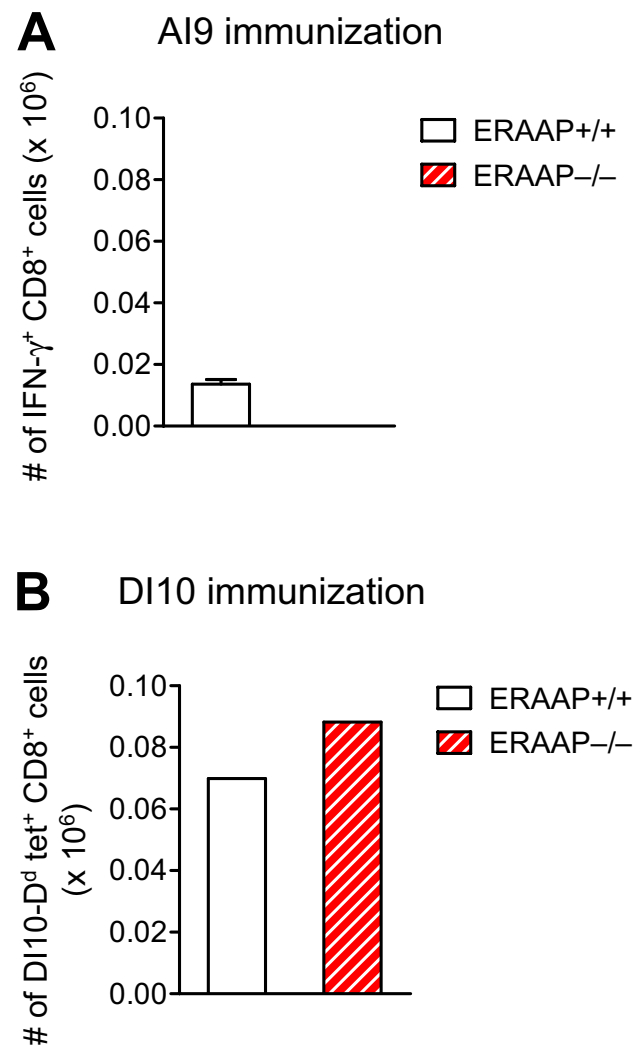


Blanchard *et al*, Sup. Fig. S6



Blanchard *et al*, Sup. Fig. S7







## **Supplemental Figure Legends**

### **Sup. Fig. S1 : Average length of the H-2<sup>b</sup> B6- and ERAAP<sup>-/-</sup> -specific pMHC I repertoire**

The length (mean +/- s.e.m.) of (A) H-2D<sup>b</sup>-bound and (B) H-2K<sup>b</sup>-bound peptides was plotted for unique H-2<sup>b</sup> B6- or ERAAP<sup>-/-</sup> -specific peptides, as well as for peptides shared between wild-type and ERAAP<sup>-/-</sup> mice. Number of peptides in each group is indicated between parentheses. p-values were calculated by unpaired two-tailed t-test based on the amino acid length.

### **Sup. Fig. S2. Amino acid composition of unique H-2K<sup>b</sup>-bound peptides recovered from B6.ERAAP<sup>-/-</sup> and wild-type B6 cells**

(A,B) Logo representation of unique H-2K<sup>b</sup>-bound (A) B6 or (B) ERAAP<sup>-/-</sup> peptide sequences analyzed independently according to their lengths shown on the X-axis. The height of each column is proportional to the degree of amino acid conservation and the height of each letter composing the column is proportional to its frequency at the given position. Numbers between parentheses indicate the number of peptide sequences analyzed. Groups containing less than 8 peptides (arbitrary choice) were not analyzed. Amino acids are colored as follows: acidic (red), basic (blue), hydrophobic (black), neutral (purple) and the others (green). (C) Unusually long and unique peptides were tentatively sorted into 2 categories according to the location of the bulge : between the N-terminus and the internal F/Y ("N-bulge") or between the internal F/Y and the C-terminus ("C-bulge"). See Sup Table S2 for peptide annotation. Bars show the fraction of

peptides in each category. As some peptides could be classified in two distinct categories, the sum of percentages may be higher than 100. Numbers between parentheses represent the number of peptides showing an apparent consensus motif (therefore included in the analysis) over the total number of longer and unique H-2K<sup>b</sup>-bound peptides.

**Sup Fig. S3 : The YL9-H-2L<sup>d</sup>-specific, but not the AI9-H-2D<sup>d</sup>-specific response, is reduced in ERAAP<sup>-/-</sup> mice after infection with a low dose of virus**

(A) Frequencies of NP118- (an irrelevant peptide from LCMV), YL9- and AI9-specific CD8<sup>+</sup> cells assessed by tetramer labeling 7 days post-infection with 10<sup>5</sup> pfu of mCMV. (B) IFN- $\gamma$  production by splenocytes restimulated exogenously with TL9 (an irrelevant  $\beta$ -galactosidase peptide), YL9 or AI9 seven days post-infection with 10<sup>5</sup> pfu of mCMV. Each dot represents an individual mouse. Data are pooled from two separate experiments. \* : p < 0.05 ; \*\* : p < 0.005

**Sup Fig. S4 : Degranulation of CD8<sup>+</sup> T cells in response to N-terminally extended YL9 and AI9 peptides**

Degranulation of CD8<sup>+</sup> T cells from the spleen 7 days post-infection in response to exogenously added (A) YL9 and ML10 or (B) AI9 and DI10 (see additional methods). Bars show the mean +/- s.e.m. with N = 3 to 5 mice for each group. \* : p < 0.05

**Sup Fig. S5 : Sustained DI10-H-2D<sup>d</sup>-specific response by ERAAP<sup>-/-</sup> CD8<sup>+</sup> T cells is not due to preferred loading on ERAAP<sup>-/-</sup> APCs**

IFN- $\gamma$  production by CD8<sup>+</sup> cells from the spleen 7 days post-infection in response to (A) exogenous AI9 or DI10 or (B) to naïve H-2<sup>d</sup> ERAAP<sup>-/-</sup> splenocytes previously pulsed with AI9 or DI10. Bars show the mean +/- s.e.m. with N = 3 to 5 mice for each group. \* : p < 0.05

**Sup Fig. S6 : Depletion efficiency after Facs-based or magnetic bead-based sorting**

(A, B) Splenocytes from infected H-2<sup>d</sup> (A) ERAAP<sup>+/-</sup> mice or (B) ERAAP<sup>-/-</sup> mice were stained with CD8 and the AI9-H-2D<sup>d</sup> tetramer (input). Right dot plots show the FACS-sorted CD8<sup>+</sup> AI9-H-2D<sup>d</sup> tetramer<sup>-</sup> population further labeled with DI10-H-2D<sup>d</sup> tetramer (see Fig. 6). Numbers represent percentages of tetramer<sup>+</sup> out of CD8<sup>+</sup> cells. Results are typical of 2 experiments performed with 3 mice pooled per genotype. (C, D) Splenocytes from infected H-2<sup>d</sup> (C) ERAAP<sup>+/-</sup> mice or (D) ERAAP<sup>-/-</sup> mice were stimulated with AI9 and IFN- $\gamma$ -producing cells were labeled, without fixation, using the Miltenyi IFN- $\gamma$  secretion assay (input) (see methods). Right dot plots show cells from the negative fraction after magnetic bead-based sorting, which were used in a subsequent regular IFN- $\gamma$  assay (see Fig. 6). Numbers represent percentages of IFN- $\gamma$ <sup>+</sup> out of CD8<sup>+</sup> cells. Results are typical of 2 experiments performed with 3 mice pooled per genotype.

**Sup Fig. S7 : Degranulation by DI10-H-2D<sup>d</sup>-specific CD8<sup>+</sup> T cells**

Degranulation of CD8<sup>+</sup> cells in response to AI9 or DI10 after depletion of AI9-H-2D<sup>d</sup>-responding cells. As in Fig. 6, splenocytes from infected mice were stimulated with synthetic AI9 and IFN- $\gamma$ -producing cells were labeled, without

fixation, using the Miltenyi IFN- $\gamma$  secretion assay (see methods). Bars show degranulation by CD8<sup>+</sup> IFN- $\gamma$ <sup>-</sup> cells pooled from 3 spleens per genotype.

**Sup Fig. S8 : Similar numbers of DI10-specific CD8<sup>+</sup> T cells induced by immunization with BMDCs**

Absolute numbers of DI10-H-2D<sup>d</sup>-specific CD8<sup>+</sup> cells in lymph nodes 7 days after immunization with (A) AI9-pulsed BMDCs. Numbers of IFN- $\gamma$ -producing CD8<sup>+</sup> cells in response to AI9 alone or to a mix of AI9 and DI10 were measured. Bars show the difference between both responses. Mean  $\pm$  s.e.m. (N = 3 mice).

Data representative of 2 independent experiments with 3 to 5 mice per group.

(B) Tetramer staining of lymph node cells from DI10-immunized mice depleted from AI9-H-2D<sup>d</sup> tetramer<sup>+</sup> CD8<sup>+</sup> cells by FACS sorting, as in Fig. 6B,C. Bars show absolute numbers of CD8<sup>+</sup> DI10-H-2D<sup>d</sup> tetramer<sup>+</sup> cells in the draining lymph nodes of three mice pooled per group.

205 D<sup>b</sup> peptides (C57BL/6 spleen cells)

Accession #	Peptides													Bulge	m/z	Protein entry name
	1	2	3	4	5	6	7	8	9	10	11	12	13			
Q9JL26	F	Q	V	K	N	P	P	A	A	Y	I			N-	1247.679	Formin-like protein 1
Q68FD5	S	A	I	M	N	P	A	S	K	V	I			C-	1130.624	Clastrin heavy chain
Q9VW44	F	A	L	A	H	L	I	K	V	V					1125.678	EH domain-containing protein 1
Q3UW44	S	S	I	Q	N	G	K	Y	T	L					1110.58	JmjC domain containing histone demethylation protein 1D
Q5DU02	F	A	V	V	H	Q	G	T	L	L					1085.574	Ubiquitin carboxyl terminal hydrolase 22
Q8BMK0	L	S	I	L	N	S	N	E	H	L					1139.606	Coiled-coil domain-containing protein 21
Q8BPI1	V	S	L	N	N	A	V	I	V	L					1041.642	Uncharacterized protein C14orf104 homolog
Q8V175	Y	A	L	E	N	F	V	E	N	L					1211.595	Importin-4
Q9DBS8	G	A	L	E	N	A	K	A	E	I					1015.542	Uncharacterized protein C5orf37 homolog
Q9Z1F9	S	M	A	G	N	I	I	P	A	I					986.534	SUMO-activating enzyme subunit 2
P08003	S	K	F	D	V	S	G	Y	P	T	I				1213.611	Protein disulfide-isomerase A4 precursor
Q3U1N2	A	A	V	Q	N	P	A	L	T	A	L				1068.605	Sterol regulatory element-binding protein 2
Q3UHA3	I	H	G	S	A	S	T	V	D	S	L				1086.543	Spatacsin
Q8BKT7	Y	Q	F	D	K	V	G	I	L	T	L				1296.72	THO complex subunit 5 homolog
Q3THE2	S	L	G	K	N	P	T	D	A	Y	L				1178.606	Myosin regulatory light chain 2-B, smooth muscle isoform
Q8BYW1	E	D	S	K	P	Q	G	C	M	Y	L				1270.545	Rho GTPase-activating protein 25
Q91WG4	S	A	P	R	N	F	V	E	N	F					1180.575	Elongator complex protein 2
O54826	V	G	S	S	P	V	G	S	E	I					931.474	Protein AF-10
O55112	T	T	I	S	S	I	T	P	T	I					1033.578	AF4/FMR2 family member 2
P16277	R	S	L	D	N	G	G	Y	Y	I					1157.559	Tyrosine-protein kinase BLK
P61161	Y	A	G	S	N	F	P	E	H	I					1134.522	Actin-related protein 2
Q02257	Y	T	D	G	V	R	M	E	E	I					1212.557	Junction plakoglobin
Q8BG30	I	A	S	L	L	T	A	A	V	I					971.614	Negative elongation factor A
Q8VHI3	L	Y	K	D	G	V	A	I	I						1048.616	GDP-fucose protein O-fucosyltransferase 2 precursor
Q9CS72	A	M	S	P	V	T	I	T	T	I					1033.56	Filamin-A-interacting protein 1
P51943	V	S	L	L	N	P	P	E	T	L					1082.61	Cyclin-A2
P58064	S	A	V	E	N	I	L	E	H	L					1124.595	Mitochondrial 28S ribosomal protein S6
Q8COL9	F	G	I	H	N	G	V	E	T	L					1086.558	Putative glycerophosphodiester phosphodiesterase 5
Q99PL5	S	S	I	V	N	S	I	Q	V	L					1059.605	Ribosome-binding protein 1
Q9CQG2	T	A	I	E	N	S	W	I	H	L					1183.611	Putative methyltransferase METT10D
Q9D3G9	Y	S	V	A	N	H	N	S	F	L					1151.549	Rho-related GTP-binding protein RhoH precursor
Q9DB00	N	A	P	Q	N	P	E	S	K	L					1097.559	GON-4-like protein
Q9LFN8	S	F	A	L	S	G	P	K	L	L					1032.609	Glutamate receptor 2.6 precursor
P19973	R	Q	P	S	I	E	L	P	S	M					1157.599	Lymphocyte-specific protein 1
P97412	I	N	V	I	A	G	G	L	E	N					999.548	Lysosomal-trafficking regulator
A2AIV2	R	Q	I	L	N	A	D	A	M						1031.531	Protein virilizer homolog
O35127	S	A	P	E	N	A	V	R	M						974.473	Protein C10
O35134	T	G	K	Q	V	V	S	T	L						932.542	DNA directed RNA polymerase I subunit RPA1
O35598	S	G	I	R	N	I	S	F	M						1024.525	ADAM 10 precursor
O35604	V	A	V	V	N	K	V	D	I						956.578	Niemann-Pick C1 protein precursor
O35643	V	A	L	R	N	I	N	L	I						1025.647	AP-1 complex subunit beta-1
O35737	F	S	P	L	N	P	V	R	V						1028.589	Heterogeneous nuclear ribonucleoprotein H
O35988	K	A	P	T	N	E	F	Y	A						1040.505	Syndecan-4 precursor
O70551	I	S	G	V	N	G	T	H	I						897.479	Serine/threonine-protein kinase SRPK1
O88491	E	L	S	R	I	A	N	S	L						1002.558	Histone-lysine N-methyltransferase, H3 lysine-36 and H4 lysine-20 specific
O88904	S	L	L	T	N	H	V	T	L						997.568	Homeodomain interacting protein kinase 1
P01899	F	A	Y	E	G	R	D	Y	I						1133.527	H-2 class I histocompatibility antigen, D-B alpha chain precursor
P04441	S	Q	M	R	M	A	T	P	L						1034.513	H-2 class II histocompatibility antigen gamma chain
P07742	F	Q	I	V	N	P	H	L	L						1080.621	Ribonucleoside-diphosphate reductase large subunit
P09581	F	A	P	K	N	I	Y	S	I						1052.578	Macrophage colony-stimulating factor 1 receptor precursor
P14576	A	T	I	I	N	E	E	V	L						1001.552	Signal recognition particle 54 kDa protein
P14901	I	Q	A	E	N	A	E	F	M						1052.472	Heme oxygenase 1
P16546	K	A	L	I	N	A	D	E	L						986.552	Spectrin alpha chain, brain
P17918	A	M	G	V	N	L	T	S	M						923.433	Proliferating cell nuclear antigen
P19096	T	A	L	E	N	L	S	T	L						961.521	Fatty acid synthase
P20693	T	A	I	Q	N	V	S	H	V						968.516	Low affinity immunoglobulin epsilon Fc receptor
P23492	S	L	I	T	N	K	V	V	M						1004.581	Purine nucleoside phosphorylase
P24547	G	G	I	Q	N	V	G	H	I						894.48	Inosine 5' monophosphate dehydrogenase 2
P24638	R	S	I	Q	N	A	Q	F	L						1076.585	Lysosomal acid phosphatase precursor
P26039	V	M	V	T	N	V	T	S	L						963.519	Talin-1
P27005	V	Q	N	I	N	I	E	N	L						1056.569	Protein S100-A8
P27773	F	A	H	T	N	I	E	S	L						1031.516	Protein disulfide-isomerase A3 precursor
P28063	G	G	V	V	N	M	Y	H	M						1007.444	Proteasome subunit beta type-8 precursor
P28658	N	S	I	R	N	L	D	T	I						1045.564	Ataxin-10
P36423	L	G	P	K	N	G	V	Y	I						960.552	Thromboxane-A synthase
P42209	S	T	L	I	N	S	L	F	L						1007.578	Septin-1
P42228	S	I	L	V	N	Q	E	V	L						1014.584	Signal transducer and activator of transcription 4
P46414	F	G	P	V	N	H	E	E	L						1041.501	Cyclin-dependent kinase inhibitor 1B
P54823	I	N	F	D	F	P	K	L							993.541	Probable ATP-dependent RNA helicase DDX6
P55264	S	A	V	V	D	K	D	F	L						993.526	Adenosine kinase
P58021	T	N	V	L	T	S	F	L							1007.578	Transmembrane 9 superfamily member 2 precursor
P58252	R	I	V	E	N	V	N	V	I						1055.637	Elongation factor 2
P58462	S	M	A	E	N	S	I	P	L						961.467	Forkhead box protein P1
P59016	A	S	L	V	N	A	D	K	L						930.526	Vacuolar protein sorting-associated protein 33B
P59326	G	S	V	V	N	S	V	A	L						845.473	YTH domain family protein 1
P61982	A	A	M	K	N	V	T	E	L						976.514	14 3 3 protein gamma
P62830	A	A	G	V	G	D	M	V	M						850.38	60S ribosomal protein L23
P63005	A	I	M	P	N	G	D	H	I						967.467	Platelet-activating factor acetylhydrolase IB subunit alpha
P70168	A	A	L	Q	N	L	V	K	I						969.61	Importin subunit beta-1
P70372	G	A	V	T	N	V	K	V	I						900.552	ELAV-like protein 1
P70428	A	S	V	S	N	P	L	F	L						947.52	Exostosin-2
P70436	E	R	A	Q	L	A	A	Q	L						999.559	Homeobox protein DLX-4
P84089	Y	Q	P	Y	N	K	D	W	I						1226.585	Enhancer of rudimentary homolog
P97313	S	A	L	I	N	L	V	E	F						1005.562	DNA-dependent protein kinase catalytic subunit
Q03350	V	S	S	D	N	Q	F	L	L						1022.516	Thrombospondin-2 precursor
Q0VF94	F	L	Q	P	V	I	T	E	L						1059.609	NTPase KAP family P-loop domain-containing protein 1
Q3TCJ1	S	Q	I	S	N	T	E	F	L						1038.511	Uncharacterized protein KIAA0157
Q3TGF2	L	A	P	Q	N	K	P	E	L						1009.568	Protein FAM107B
Q3U133	A	A	P	I	S	P	W	T	M						973.482	Zinc finger protein 746
Q3UHC7	V	S	P	T	N	P	T	K	L						956.542	Disabled homolog 2-interacting protein
Q3ULJ0	G	A	L	K	N	L	V	A	V						884.557	Glycerol-3-phosphate dehydrogenase 1-like protein
Q3UJ45	R	A	I	E	N	I	D	T	L						1044.569	Protein phosphatase 1 regulatory subunit 7
Q4JIM5	S	S	L	I	N	G	S	F	L						937.5	Tyrosine-protein kinase ABL2
Q571F8	E	A	V	R	N	T	L	S	L						1002.558	Glutaminase liver isoform, mitochondrial precursor
Q5EG47	W	K	V	N	P	V	Y	L							1181.636	5'-AMP-activated protein kinase catalytic subunit alpha-1
Q5SZV5	G	Y	V	N	V	T	V	M	P						979.492	Uncharacterized protein KIAA03

Q62419	V R T I E Y L Q	1021.568	Endophilin A2
Q62471	L A F I N N G N L F S	983.459	Vomeronal secretory protein 1 precursor
Q64280	L E Q I L L G S N L L H	1000.568	Left right determination factor 1 precursor
Q64511	N S M V L V F D L H Q M	1093.481	DNA topoisomerase 2 beta
Q66K08	S A T V I N A E F F V L	951.479	Cartilage intermediate layer protein 1 precursor
Q69ZF8	A T V S N G G P A I V L	905.473	Male specific lethal 2 like 1
Q6P073	F M V E K G P T L V L	1021.539	Ubiquitin conjugating enzyme E2 J2
Q6VNB8	L A S V G N P A I V L	841.478	WD repeat and FYVE domain-containing protein 3
Q6WKZ8	S L P T N L I H L	1007.589	E3 ubiquitin-protein ligase UBR2
Q6ZPV2	I S G L L P Y I S L L	963.515	Putative DNA helicase INO80 complex homolog 1
Q7G9P4	L P Y L N A A F L L	1021.572	Abscisic-aldehyde oxidase
Q77MR0	Q M P K L E A F L L	1038.595	Lysosomal Pro-X carboxypeptidase precursor
Q77NT2	A A V L N P R F I L	1076.581	Fatty acyl-CoA reductase 2
Q77PS5	G S L T N V T L L	1000.594	Uncharacterized protein KIAA0528
Q80TH2	I A P T N A E V L L	932.542	Protein LAP2
Q80U28	A A L Q N A V A F L	927.515	MAP kinase-activating death domain protein
Q80V11	V S V A N V D A L L	904.489	Tripartite motif-containing protein 56
Q80Y17	W A V S N R E M L L	929.531	Lethal (2) giant larvae protein homolog 1
Q80YQ8	S K L A N I D Y L L	1105.546	Protein RMD5 homolog A
Q811L6	A A P S N L P Y L L	1036.568	Microtubule-associated serine/threonine-protein kinase 4
Q8BFV3	S A I I N E D N L L	945.505	Dual specificity protein phosphatase 4
Q8BG67	I G P K N Y E F L L	988.495	Protein EFR3 homolog A
Q8BHY8	T S L L N L T V I L	1080.573	Sorting nexin-14
Q8BM54	A A P F D T V H I L	973.593	E3 ubiquitin-protein ligase MYLIP
Q8BNV1	S A L A N Y I H L L	970.5	HpalI tiny fragments locus 9c protein
Q8BPS4	V S L L D I D H L L	1001.542	Integral membrane protein GPR180 precursor
Q8BQM4	S S V L N L T E L L	1024.568	HEAT repeat-containing protein 3
Q8BW56	A M L T N L E S L L	975.536	Glycosyltransferase-like domain-containing protein 1
Q8BZQ7	Y G L L N V T K I L	991.513	Anaphase-promoting complex subunit 2
Q8C0D4	F S Y L N P Q E L L	1020.609	Rho GTPase-activating protein 12
Q8C2S5	S M V Q N R V F L L	1110.547	F-box/LRR-repeat protein 5
Q8C3J5	K S V E N F V S L L	1093.583	Dedicator of cytokinesis protein 2
Q8C3J5	S A P I N S V L L L	1022.552	Dedicator of cytokinesis protein 2
Q8C4N4	F S V T N P H T M L	913.536	PG-loop repeat-containing protein 2
Q8CDD9	F Q N V N S V T L L	1033.478	Uncharacterized protein C1orf103 homolog
Q8CDN6	L A I R N D E E L L	1021.532	Thioredoxin-like protein 1
Q8CGP5	V N K V K E T E L L	1072.564	Histone H2A type 1-F
Q8CHH9	T S V E N H E F L L	1059.605	Septin-8
Q8CJF7	K A T T N I V E M L	1075.506	AT-hook-containing transcription factor 1
Q8K1H7	S E A A Q L A E E I L	1006.524	T complex protein 11 like 2
Q8K268	E E I S M L G E I L	931.474	ATP-binding cassette sub-family F member 3
Q8R1S4	F A P Y N K P S L L	1020.492	Metastasis suppressor protein 1
Q8R3P2	V A P Y N T T Q F L	1036.547	Protein deltex 2
Q8R409	I S L I D P K F K L	1040.505	Protein HEXIM1
Q8RFX1	F I P N I Y A A L L	1060.641	Probable splicing factor 3 subunit 1
Q8VHN7	S A V K N L Q Q L L	1021.609	G-protein coupled receptor 98 precursor
Q8VJ8	T A P Y N Y S Y I L	1000.568	Protein C16orf35 homolog
Q91V41	Q T V E N V E H L L	1091.505	Ras-related protein Rab-14
Q91V83	A A L K N L T Y F L	1068.533	Uncharacterized protein KIAA0406 homolog
Q91WM3	G A V K N L T Y F L	929.531	U3 small nucleolar RNA-interacting protein 2
Q91Y74	L S L Q E L Q T I L	1012.547	CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,3-sialyltransferase
Q91Y10	K V K H L V F L L	1044.594	Argininosuccinate lyase
Q91YM4	S Q L V K A D E R M Q	1047.636	Protein TBRG4
Q91YW3	L G I Q D L E R Q L	1020.504	DnaJ homolog subfamily C member 3
Q91ZU1	T A P V N I A V I L	1071.58	Ankyrin repeat and SOCS box protein 6
Q99JF5	S S L V N S Q T L L	897.541	Diphosphomevalonate decarboxylase
Q99K90	S G L Q N F A E L L	948.5	Mitogen-activated protein kinase kinase 7-interacting protein 2
Q99KD5	M A P Q N L S T F L	978.49	UNC45 homolog A
Q99KV1	A S P E G Q D Y L L	1008.482	DnaJ homolog subfamily B member 11 precursor
Q99LF4	V S L N L R Q V L L	979.437	UPF0027 protein C22orf28 homolog
Q99N32	A S V L N V N H I L	1041.642	Beta-klotho
Q99NH0	V S P L N V T A V L	966.537	Ankyrin repeat domain-containing protein 17
Q9CR27	S A I F N F Q S L L	899.52	Coiled-coil domain-containing protein 53
Q9CR64	I Q I A N V T T L L	1026.526	Transmembrane protein 167 precursor
Q9CU65	L Q F L N P D P L L	972.573	MYM-type zinc finger protein 2
Q9CV12	G I P N I P V H P L	1009.485	Protein FAM133B
Q9CWU0	G A L K N T Y F L	1056.559	Tudor domain-containing protein 12
Q9CZR2	F A I Q N P T L I L	943.537	N-acetylated-alpha-linked acidic dipeptidase 2
Q9D020	E S L Q M S L S L L	1028.505	Cytosolic 5'-nucleotidase 3
Q9D2H6	V A L E N A N A V L	1016.578	Transcription factor Sp2
Q9D662	S A I T N V A K I L	1007.508	Protein transport protein Sec23B
Q9D6Z1	S S P V N P V V F L	900.479	Nucleolar protein 5A
Q9D757	S G I I D S D F L L	916.547	Death associated protein like 1
Q9D868	R I L E G G H V M L	945.505	Peptidyl-prolyl cis-trans isomerase H
Q9D8P7	S G L L N Q Q S L L	966.478	General transcription factor 3C polypeptide 6
Q9DAM9	V G V N N P V F L L	1011.541	Fibronectin type 3 and ankyrin repeat domains 1 protein
Q9DB40	G A V Q N I A H L L	959.527	Mediator of RNA polymerase II transcription subunit 27
Q9DBN5	I Q L M M T A H L L	958.536	Peroxisomal Lon protease homolog 2
Q9DBR3	F S E E N H E P L L	922.511	Armadillo repeat-containing protein 8
Q9DC50	L G L S N L T H L L	1040.556	Peroxisomal carnitine O-octanoyltransferase
Q9EQH3	G A V F N G I T L L	1101.485	Vacuolar protein sorting-associated protein 35
Q9EQU3	F S L Q N Q L R L L	967.558	Toll-like receptor 9 precursor
Q9ES97	V S S I N Q E A L L	891.494	Reticulon-3
Q9JJ28	Y V H V N R D T L L	1118.632	Protein flightless-1 homolog
Q9JKP8	R A I P N N Q V L L	960.5	Chromatin accessibility complex protein 1
Q9JLV6	G A P L N L V D L L	1116.58	Bifunctional polynucleotide phosphatase/kinase
Q9JMG1	F S V E N F D A L L	1024.59	Endothelial differentiation-related factor 1
Q9QWT9	L S L L L P K Y N S	911.52	Kinesin-like protein KIFC1
Q9QXH4	A A I L Y Q K Q S L	1041.489	Integrin alpha-X precursor
Q9QYC7	F G P I N S V A F L	1060.641	Vitamin K-dependent gamma-carboxylase
Q9QYX7	S A I S N L D Y I L	1021.568	Protein piccolo
Q9QZD9	L Q L L N T D Y L L	951.494	Eukaryotic translation initiation factor 3 subunit I
Q9R0C8	Y A P I N A N A I L	995.505	Protein vav-3
Q9R0L6	Y V V D N I D H L L	1092.594	Pericentriolar material 1 protein
Q9R190	A A L Q N L E Q L L	946.5	Metastasis-associated protein MTA2
Q9R1A8	L S L P N T D Y I L	1087.542	E3 ubiquitin-protein ligase RFW2
Q9WTK5	S L L S N L D E I L	999.548	Nuclear factor NF-kappa-B p100 subunit
Q9WTK2	V T V L N V D H L L	1035.536	Interferon-inducible double stranded RNA-dependent protein kinase activator A
Q9WU78	A I V E H L V T L L	1003.531	Programmed cell death 6-interacting protein
Q9WUF3	V A P R S S A E L L	1009.568	CASP8-associated protein 2
Q9Z1E3	S L I I L K Q V M L	994.594	NF-kappa-B inhibitor alpha
Q9Z1S0	F S P F N P T S L L	929.506	Mitotic checkpoint serine/threonine-protein kinase BUB1 beta
Q9Z2U1		1044.649	Proteasome subunit alpha type-5
Q9Z2U4		1009.5	ETS-related transcription factor Elf-4

167 D<sup>b</sup> peptides (ERAAP-deficient spleen cells)

Accession #	Peptides													Bulge	m/z	Protein entry name	
	1	2	3	4	5	6	7	8	9	10	11	12	13				
Q99LH1	A	S	L	T	N	P	F	G	K	G	A	F	I	N-	C-	1322.711	Nucleolar GTP-binding protein 2
P14206	V	A	I	E	N	P	A	D	V	S	V	I	X	X	1226.663	40S ribosomal protein SA	
Q80TP3	A	A	L	E	A	S	N	A	S	S	Y	L	X	X	1196.58	E3 ubiquitin-protein ligase UBR5	
Q64253	A	G	F	G	N	V	N	L	G	Y	T	L	X	X	1225.622	Lymphocyte antigen 6E precursor	
Q88554	T	G	I	L	N	P	E	G	Y	T	L	L	X	X	1177.611	Poly [ADP-ribose] polymerase 14	
Q8CHW4	R	V	F	Q	N	E	V	L	G	T	L	L	X	X	1275.706	Translation initiation factor eIF-2B subunit epsilon	
Q35737	F	S	P	L	N	P	V	R	V	H	I	L	X	X	1278.732	Heterogeneous nuclear ribonucleoprotein H	
Q6PNC0	V	A	P	A	N	S	L	V	H	A	F	I	X	X	1125.606	DmX-like protein 1	
P97823	K	A	L	I	N	P	A	N	V	T	F	I	X	X	1187.679	Acyl-protein thioesterase 1	
Q8BIF9	A	S	H	E	N	P	V	D	I	L	L	L	X	X	1207.632	Zinc finger protein 787	
Q921T1	A	A	P	Q	N	F	T	P	S	M	I	L	X	X	1176.572	AP-3 complex subunit beta-1	
P30999	S	A	V	S	N	N	Y	I	Q	T	L	X	X	1209.612	Catenin delta-1		
Q01237	S	G	P	T	N	E	D	L	Y	I	L	X	X	1108.527	3-hydroxy-3-methylglutaryl-coenzyme A reductase		
Q07174	I	S	P	Q	N	G	R	Y	Q	T	L	X	X	1175.617	Mitogen-activated protein kinase kinase kinase 8		
Q80YV3	S	A	I	I	N	L	F	H	L	I	L	X	X	1140.678	Transformation/transcription domain-associated protein		
Q8BJU0	A	G	L	L	N	N	P	H	F	I	L	X	X	1095.595	Small glutamine-rich tetratricopeptide repeat-containing protein A		
Q8JZW4	Q	S	Q	F	N	I	Y	E	V	I	L	X	X	1240.629	Copine-5		
Q99N16	S	A	Y	L	N	M	F	E	H	I	L	X	X	1224.572	Cytochrome P450 4F3		
Q9VWJ0	V	V	F	G	N	V	T	A	I	L	X	X	1032.594	Potassium voltage-gated channel subfamily H member 3			
Q88545	N	Q	F	V	N	K	F	N	V	L	X	X	1222.658	COP9 signalosome complex subunit 6			
P13864	L	S	L	E	N	G	T	H	T	L	X	X	1084.564	DNA			
P20029	I	T	I	L	N	D	Q	N	R	L	X	X	1187.638	78 kDa glucose-regulated protein precursor			
P70168	A	A	V	E	N	L	P	T	F	L	X	X	1074.584	Importin subunit beta-1			
P97376	H	A	L	D	N	G	L	F	T	L	X	X	1100.574	Protein FRG1			
Q00175	V	G	L	P	N	E	D	Q	A	L	X	X	1027.546	Progesterone receptor			
Q61026	S	S	V	S	N	V	N	L	T	L	X	X	1033.553	Nuclear receptor coactivator 2			
Q8BK67	A	A	Y	R	N	L	G	Q	N	L	X	X	1119.591	Protein RCC2			
Q9JIM1	S	A	I	F	N	V	M	T	L	X	X	1109.566	Equilibrative nucleoside transporter 1				
Q9JMG2	A	V	I	E	N	L	K	Y	F	L	X	X	1209.688	C1GALT1-specific chaperone 1			
Q60754	T	G	I	Q	G	Q	K	G	T	K	G	E			1203.633	Macrophage receptor MARCO	
Q8JZP2	F	S	E	L	N	L	A	A	Y	V	T	G	G			1341.669	Synapsin-3
O08715	E	L	S	L	M	G	D	K	A	K	S	I			1291.726	A kinase anchor protein 1, mitochondrial precursor	
Q9QXM0	K	S	P	T	A	P	P	D	L	Y	F			1235.631	Abhydrolase domain-containing protein 2		
P70424	A	E	Q	R	A	S	P	V	T	F	I			1218.648	Receptor tyrosine-protein kinase erbB-2 precursor		
P08003	S	K	F	D	V	S	G	Y	P	T	I			1213.611	Protein disulfide-isomerase A4 precursor		
P53496	K	S	Y	E	L	P	D	G	Q	V	I			1248.648	Actin-11		
P80313	L	V	S	N	I	S	A	C	Q	V	I			1146.619	T-complex protein 1 subunit eta		
Q3U1N2	A	A	V	Q	N	P	A	L	T	A	L	L			1068.605	Sterol regulatory element-binding protein 2	
Q8BK77	Y	Q	F	D	K	V	G	I	L	T	L			1296.72	THO complex subunit 5 homolog		
Q3THE2	S	L	G	K	N	P	T	D	A	Y	L			1178.606	Myosin regulatory light chain 2-B, smooth muscle isoform		
Q60611	S	S	I	V	N	S	T	Y	Y	A			1104.521	DNA-binding protein SATB1			
Q80VH0	N	S	P	F	N	S	K	F	P	A			1108.543	B-cell scaffold protein with ankyrin repeats			
Q91WG4	S	A	P	R	N	F	V	E	N	F			1180.575	Elongator complex protein 2			
P16277	R	S	L	D	N	G	G	Y	Y	I			1157.559	Tyrosine-protein kinase BLK			
P61161	Y	A	G	S	N	F	P	E	H	I			1134.522	Actin-related protein 2			
Q8BK5	N	T	N	L	P	K	I	F	S	I			1146.652	Importin subunit beta-3			
Q9CS72	A	M	S	P	V	T	I	T	I			1033.56	Filamin-A-interacting protein 1				
P51943	V	S	L	L	N	P	P	E	T	L			1082.61	Cyclin-A2			
P54775	M	V	S	T	I	D	R	E	L	L			1176.63	26S protease regulatory subunit 6B			
P58064	S	A	V	E	N	I	L	E	H	L			1124.595	Mitochondrial 28S ribosomal protein S6			
Q501J6	A	T	P	G	R	L	I	D	F	L			1102.626	Probable ATP-dependent RNA helicase DDX17			
Q63870	V	E	Q	T	L	H	P	I	L			1162.691	Collagen alpha-1(VII) chain precursor				
Q8C0L9	F	G	I	H	N	G	V	E	T	L			1086.558	Putative glycerophosphodiester phosphodiesterase 5			
Q8R1B8	F	A	K	N	L	C	S	L	Q	L			1136.595	Nuclear receptor ROR-beta			
Q99PL5	S	S	I	V	N	S	I	Q	V	L			1059.605	Ribosome-binding protein 1			
Q9CQG2	T	A	I	E	N	S	W	I	H	L			1183.611	Putative methyltransferase METT10D			
Q9D3G9	Y	S	V	A	N	H	N	S	F	L			1151.549	Rho-related GTP-binding protein RhoH precursor			
Q9D710	A	A	P	A	P	S	L	W	T	L			1026.562	Scotin precursor			
Q9DB00	N	A	P	Q	N	P	E	S	K	L			1097.559	GON-4-like protein			
P84309	L	M	L	A	I	E	F	I	Y	V			1211.675	Adenylate cyclase type 5			
Q9JHC9	S	A	P	S	A	I	A	L	P	V			925.536	ETS-related transcription factor Elf-2			
P01887	I	Q	K	T	P	Q	I	Q	V	Y			1217.689	Beta-2-microglobulin precursor			
O35114	K	S	V	I	N	T	T	L	V			974.589	Lysosome membrane protein 2				
O35127	S	A	P	E	N	A	V	R	M			974.473	Protein C10				
O35737	F	S	P	L	N	P	V	R	V			1028.589	Heterogeneous nuclear ribonucleoprotein H				
O88491	A	S	M	I	N	V	E	Y	L			1039.513	Histone-lysine N-methyltransferase, H3 lysine-36 and H4 lysine-20 specific				
O88904	S	L	L	T	N	H	V	T	L			997.568	Homeodomain interacting protein kinase 1				
P01899	F	A	Y	E	G	R	D	Y	I			1133.527	H-2 class I histocompatibility antigen, D-B alpha chain precursor				
P04441	S	Q	M	R	M	A	T	P	L			1034.513	H 2 class II histocompatibility antigen gamma chain				
P07724	E	T	Y	V	P	K	E	F			1012.499	Serum albumin precursor					
P07742	F	Q	I	V	N	P	H	L	L			1080.621	Ribonucleoside-diphosphate reductase large subunit				
P09581	F	A	P	K	N	I	Y	S	I			1052.578	Macrophage colony-stimulating factor 1 receptor precursor				
P14206	A	S	Y	V	N	L	P	T	I			977.531	40S ribosomal protein SA				
P14576	A	T	I	N	E	E	V	L			1001.552	Signal recognition particle 54 kDa protein					
P14901	I	Q	A	E	N	A	E	F	M			1052.472	Heme oxygenase 1				
P16546	K	A	L	I	N	A	D	E	L			986.552	Spectrin alpha chain, brain				
P17918	A	M	G	V	N	L	T	S	M			923.433	Proliferating cell nuclear antigen				
P19137	E	L	Q	S	R	A	G	A	L			944.516	Laminin subunit alpha-1 precursor				
P24547	G	G	I	Q	N	V	G	H	I			894.48	Inosine 5' monophosphate dehydrogenase 2				
P28063	G	G	V	V	N	M	Y	H	M			1007.444	Proteasome subunit beta type-8 precursor				
P28658	N	S	I	R	N	L	D	T	I			1045.564	Ataxin-10				
P30282	A	A	V	I	A	H	D	F	L			956.52	G1/S-specific cyclin-D3				
P31230	S	G	L	V	N	H	V	P	L			935.531	Multisynthetase complex auxiliary component p43				
P35278	A	M	N	V	N	E	I	F	M			1068.486	Ras-related protein Rab-5C				
P35396	F	V	I	H	D	I	E	T	L			1086.584	Peroxisome proliferator-activated receptor delta				
P40142	T	R	K	A	Y	G	L	A	L			992.589	Transketolase				
P42228	S	I	L	V	N	Q	E	V	L			1014.584	Signal transducer and activator of transcription 4				
P46414	F	G	P	V	N	H	E	E	L			1041.501	Cyclin-dependent kinase inhibitor 1B				
P49718	A	A	L	P	N	I	Y	E	L			1003.546	DNA replication licensing factor MCM5				
P49813	S	S	I	V	N	K	E	G	L			946.521	Tropomodulin 1				
P54823	I	N	F	D	F	P	K	L			993.541	Probable ATP-dependent RNA helicase DDX6					
P55194	A	L	I	Q	N	A	D	T	L			958.521	SH3 domain-binding protein 1				
P55264	S	A	V	V	D	K	D	F	L			993.526	Adenosine kinase				
P55264	S	A	V	V	D	K	D	F	L			993.526	Adenosine kinase				
P59326	G	S	V	V	N	S	V	A	L			845.473	YTH domain family protein 1				
P70168	A	A	L	Q	N	L	V	K	I			969.61	Importin subunit beta-1				
P70428	A	S	V	S	N	P	L	F	L			947.52	Exostosin-2				
P70436	E	R	A	Q	L	A	A	Q	L			999.559	Homeobox protein DLX-4				
P82198	V	S	N	V	N	I	E	L	V			1000.568	Transforming growth factor-beta-induced protein ig-h3 precursor				
Q02257	S	S	V	E	N	I	Q	R	V			1031.549	Junction plakoglobin				
Q3UM45	R	A	I	E	N	I	D	T	L			1044.569	Protein phosphatase 1 regulatory subunit 7				

Q3UM45	R A I E N I D T L	1044.569	Protein phosphatase 1 regulatory subunit 7
Q3UMF0	D I N N I L E S K	1045.553	Cordon-bleu protein-like 1
Q4JIM5	S S L I N G S F L	937.5	Tyrosine-protein kinase ABL2
Q5SPL2	A S I E N T S T L	935.469	PHD finger protein 12
Q60520	L V I F N Q E V I	1074.62	Paired amphipathic helix protein Sin3a
Q60597	S A P V A A E P F	888.447	2-oxoglutarate dehydrogenase E1 component, mitochondrial precursor
Q60611	R A M Q N F L Q L	1120.589	DNA-binding protein SATB1
Q60695	N S Q V N F D F I	1083.511	Ral guanine nucleotide dissociation stimulator-like 1
Q61081	N M P W N V D T L	1089.504	Hsp90 co-chaperone Cdc37
Q61168	F N I R V A T T I	933.552	Lysosomal-associated transmembrane protein 5
Q64511	N S M V L F D H M	1093.481	DNA topoisomerase 2 beta
Q6EBV9	L Q L R H F N E	1056.559	Autophagy-related protein 9B
Q6PGC1	K S L E N I L T L	1030.626	Putative ATP-dependent RNA helicase DHX29
Q6WKZ8	S L P T N L I H L	1007.589	E3 ubiquitin-protein ligase UBR2
Q7TMR0	Q S L T N I L H L	1038.595	Lysosomal Pro-X carboxypeptidase precursor
Q7TSS2	S A L H N D L Q I	1010.552	Ubiquitin-conjugating enzyme E2 Q
Q80U16	S A L E S F D F L	1028.494	Protein FAM65B
Q80V11	A A L Q N A V A F	904.489	Tripartite motif-containing protein 56
Q80YQ2	T A L R L I T A L	971.625	Mediator of RNA polymerase II transcription subunit 23
Q8BG67	S A I I N E D N L	988.495	Protein EFR3 homolog A
Q8BHY8	I G P K N Y E F L	1080.573	Sorting nexin-14
Q8BNV1	A A P F D T V H I	970.5	HpaII tiny fragments locus 9c protein
Q8BPB0	S A P K Y I D Y L	1069.557	Mps one binder kinase activator-like 1A
Q8BPS4	S A L A N Y I H L	1001.542	Integral membrane protein GPR180 precursor
Q8BPS4	S A L A N Y I H L	1001.542	Integral membrane protein GPR180 precursor
Q8BQM4	V S L L D I D H L	1024.568	HEAT repeat-containing protein 3
Q8BW56	S S V L N L T E L	975.536	Glycosyltransferase-like domain-containing protein 1
Q8BZQ7	A M L T N L E S L	991.513	Anaphase-promoting complex subunit 2
Q8C3J5	S M V Q N R V F L	1093.583	Dedicator of cytokinesis protein 2
Q8C3J5	K S V E N F V S L	1022.552	Dedicator of cytokinesis protein 2
Q8C4V1	M G I L N T D T L	977.498	Rho GTPase-activating protein 24
Q8CHI8	A Q P V N V Q Q L	996.548	E1A-binding protein p400
Q8VE65	S A L I N L S Q F	951.515	Transcription initiation factor TFIID subunit 12
Q8VIJ8	S A V K N L Q Q L	1000.568	Protein C16orf35 homolog
Q91W50	V S A R N I M L L	1016.593	Cold shock domain-containing protein E1
Q91WM3	A A L L N T D L V	929.531	U3 small nucleolar RNA-interacting protein 2
Q91XQ0	S S L M L E S F F	1060.503	Dynein heavy chain 8, axonemal
Q91ZU1	L G I Q D L E R Q	1071.58	Ankyrin repeat and SOCS box protein 6
Q99JF5	T A P V N I A V I	897.541	Diphosphomevalonate decarboxylase
Q99KD5	S G L Q N F E A L	978.49	UNC45 homolog A
Q99KV1	M A P Q N L S T F	1008.482	DnaJ homolog subfamily B member 11 precursor
Q99N32	V S L N L R Q V L	1041.642	Beta-klotho
Q99NH0	A S V L N V N H I	966.537	Ankyrin repeat domain-containing protein 17
Q9CR64	S A I F N F Q S L	1026.526	Transmembrane protein 167 precursor
Q9D020	G A L K N T D Y F	1028.505	Cytosolic 5'-nucleotidase 3
Q9D2G2	P R V L L L D L	938.604	Dihydrodipolyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex, mitochondrial precursor
Q9D2L9	A G V S N I I E F	949.5	Protein FAM111A
Q9D868	S S P V N P V E F	945.505	Peptidyl-prolyl cis-trans isomerase H
Q9D8P7	S G I I D S D F L	966.478	General transcription factor 3C polypeptide 6
Q9DB40	S G L L N Q Q S L	959.527	Mediator of RNA polymerase II transcription subunit 27
Q9DBN5	V G V N N P V F L	958.536	Peroxisomal Lon protease homolog 2
Q9DBR3	G A V Q N I A H L	922.511	Armadillo repeat-containing protein 8
Q9EQU3	L G L S N L T H L	967.558	Toll-like receptor 9 precursor
Q9ES97	G A V F N G I T L	891.494	Reticulon-3
Q9ET01	V G V E N V A E L	929.494	Glycogen phosphorylase, liver form
Q9JJ28	A A L K L G Q E L	942.562	Protein flightless-1 homolog
Q9JJG9	V S R D Q Y L E L	1122.58	Uncharacterized protein C4orf14 homolog
Q9JLV6	A A E G Y K L V I	963.552	Bifunctional polynucleotide phosphatase/kinase
Q9QWT9	G A P L N L V D L	911.52	Kinesin-like protein KIFC1
Q9QXB9	G M K L N L D Y L	1066.561	Developmentally-regulated GTP-binding protein 2
Q9WTK5	A A L Q N L E Q L	999.548	Nuclear factor NF-kappa-B p100 subunit
Q9WTTU0	L N V T N L E F L	949.5	PHD finger protein 2
Q9Z1E3	A I V E H L V T L	994.594	NF-kappa-B inhibitor alpha
Q9Z2U1	S L I I L K Q V M	1044.649	Proteasome subunit alpha type-5



233 K<sup>b</sup> peptides (C57BL/6 spleen cells)

Accession #	Peptides										Bulge	m/z	Protein entry name
	1	2	3	4	5	6	7	8	9	10			
Q9CR08	V	I	L	E	Y	F	T	R	L		X	1153.662	Ribonuclease P protein subunit p29
Q8ROS2	V	T	Y	S	F	R	Q	S	F		X	1134.558	IQ motif and Sec7 domain-containing protein 1
Q91YE5	T	I	V	E	F	L	H	S	F		X	1092.573	Bromodomain adjacent to zinc finger domain protein 2A
Q99PN3	L	I	Y	T	F	T	T	T	F		X	1106.577	Tripartite motif-containing protein 26
Q571H0	A	V	I	Q	F	L	E	R	F		X	1088.658	Nucleolar pre-ribosomal-associated protein 1
Q9D2C7	R	S	Y	L	F	L	G	G	I		X	1025.578	Bax inhibitor 1
Q8CF17	I	G	P	T	Y	Y	Q	R	L		X	1110.595	DNA-directed RNA polymerase II subunit RPB2
Q8K4L0	H	H	A	E	Y	L	T	E	L		X	1112.538	ATP-dependent RNA helicase DDX54
Q8VDD5	R	V	A	E	F	T	T	N	L		X	1050.558	Myosin-9
Q8VEW6	F	T	L	S	F	V	S	F	L		X	1060.572	Olfactory receptor 510
Q91VV4	V	I	Y	P	F	M	Q	G	L		X	1067.567	DENN domain-containing protein 2D
Q8JKN1	V	L	A	G	F	V	N	G	L		X	889.515	Zinc transporter 7
Q9OUK4	S	L	I	L	F	S	T	R	L		X	1049.636	Baculoviral IAP repeat-containing protein 1b
Q9Z1R2	S	I	A	A	F	I	Q	R	L		X	1018.605	Large proline-rich protein BAT3
Q35218	I	Q	A	E	F	V	G	G	V		X	919.489	Cleavage and polyadenylation specificity factor subunit 2
Q9CQ20	A	M	Y	I	F	L	H	T	V		X	1094.571	ORM1-like protein 2
Q8BVK9	V	N	L	R	E	Y	P	S	L		X	1090.59	Sp110 nuclear body protein
Q99388	V	N	M	E	K	Y	P	D	L		X	1108.535	Component of Sp100-rs
Q8BLB7	I	T	P	P	G	Y	S	H	V		X	970.5	Lethal (3)malignant brain tumor-like 3 protein
P97412	V	L	V	N	H	P	S	P	A	I		1046.6	Lysosomal-traffic regulator
Q9JUX7	T	V	I	F	A	G	D	T	N	L		1050.547	TRAF and TNF receptor-associated protein
P11610	P	S	S	A	H	G	H	L	Q	L		1046.527	T-cell surface glycoprotein CD1d2 precursor
Q99KU6	R	E	L	F	P	V	F	T	Q	L		1249.695	Uncharacterized protein C6orf89 homolog
Q8BGF7	Q	A	E	H	N	L	S	S	V	L		1097.559	PAB-dependent poly(A)-specific ribonuclease subunit 2
P01887	I	Q	K	T	P	Q	I	Q	V	Y		1217.689	Beta-2-microglobulin precursor
P70412	S	L	V	V	F	L	D	T	C			996.508	CUB and zona pellucida-like domain-containing protein 1 precursor
Q8R3P7	F	K	F	D	L	G	S	K	I			1054.594	Clusterin-associated protein 1
Q99MB1	L	T	K	N	H	I	S	K	I			1053.642	Toll-like receptor 3 precursor
Q9D2X8	T	I	L	C	L	H	K	L	I			1053.649	Uncharacterized protein C8orf76 homolog
Q9D4M9	V	N	F	S	D	P	E	L	I			1033.521	Putative polypeptide N-acetylgalactosaminyltransferase-like protein 5
P04441	S	G	P	L	E	Y	P	Q	L			1003.51	H-2 class II histocompatibility antigen gamma chain
P08775	V	N	Y	R	H	L	A	L	L			1098.642	DNA-directed RNA polymerase II subunit RPB1
P14685	R	V	Y	E	F	L	D	K	L			1182.677	26S proteasome non-ATPase regulatory subunit 3
P46978	A	V	L	S	F	S	T	R	L			993.573	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit STT3A
P54227	S	S	D	I	Q	V	K	E	L			1018.542	Stathmin
Q01341	F	V	G	N	V	L	L	S	L			961.572	Adenylate cyclase type 6
Q8BW96	K	I	F	E	F	K	E	T	L			1154.646	Calcium/calmodulin-dependent protein kinase type 1D
Q8BYK6	G	V	F	S	Q	P	G	A	L			875.463	YTH domain family protein 3
Q8R3L2	R	N	Y	E	Y	L	I	R	L			1239.685	Transcription factor 25
Q99ME9	Q	I	L	S	D	F	P	K	L			1060.604	Nucleolar GTP-binding protein 1
Q9CR67	Q	S	I	A	F	I	S	R	L			1034.6	Transmembrane protein 33
Q9D1G0	Y	G	F	V	S	K	P	L				997.536	Deoxyribonuclease I-like 2 precursor
Q9D1R2	Q	P	L	A	S	G	S	F	L			919.489	Protein KTI12 homolog
Q9JHU4	A	S	Y	E	F	V	Q	R	L			1112.574	Dynein heavy chain 1, cytoplasmic 1
Q8BHW2	V	L	N	D	I	I	S	T	M			1005.529	Protein OSCP1
Q8CG20	K	S	Y	S	F	I	A	R	M			1102.572	Calcium homeostasis endoplasmic reticulum protein
O88799	V	L	L	S	P	L	S	H	S			952.518	Zonahesin precursor
Q8C0F9	L	V	Y	R	F	C	S	V	S			1073.545	Inactive serine protease 35 precursor
Q3TTA7	L	S	P	P	P	P	V	T	T			908.509	E3 ubiquitin-protein ligase CBL-B
Q8CG08	A	S	V	I	G	V	F	I	T			906.53	Sodium/potassium/calcium exchanger 4 precursor
Q07113	V	L	G	I	G	K	T	F	V			933.577	Cation-independent mannose-6-phosphate receptor precursor
Q8K2H4	I	N	Q	I	Y	E	A	R	V			1105.601	Centaurin-beta-1
A2AKX3	V	G	L	L	Y	R	L	L				946.609	Probable helicase senataxin
A2APV2	L	Q	Y	E	F	T	K	L				1041.562	Formin-like protein 2
O08575	T	I	I	I	F	H	S	L				943.562	Eyes absent homolog 2
O08739	Y	S	E	P	R	L	S	I				964.51	AMP deaminase 3
O35900	S	V	V	R	Y	V	Q	L				963.552	U6 snRNA-associated Sm-like protein LSm2
O44440	R	A	Y	L	F	N	S	V				969.505	Protein yippee-like 4
O54692	S	T	V	E	F	T	N	L				910.452	Centromere/kinetochore protein zw10 homolog
O55013	S	A	L	I	Y	S	N	L				880.478	Trafficking protein particle complex subunit 3
O70310	A	A	Y	S	F	Y	N	V				934.431	Glycylpeptide N-tetradecanoyltransferase 1
P14901	Q	N	P	V	Y	A	P	L				901.478	Heme oxygenase 1
P15066	E	T	P	V	Y	A	N	L				906.457	Transcription factor jun-D
P15307	T	T	L	I	F	Q	K	L				963.588	C-Rel proto-oncogene protein
P21278	L	V	D	Y	F	P	E	F				1029.493	Guanine nucleotide-binding protein alpha-11 subunit
P21995	V	A	P	G	F	P	L	L				829.482	Embigin precursor
P22366	S	I	L	R	F	I	T	I				962.604	Myeloid differentiation primary response protein MyD88
P23116	Q	S	I	E	F	S	R	L				979.521	Eukaryotic translation initiation factor 3 subunit A
P25425	L	F	L	N	P	Q	N	L				958.536	POU domain, class 2, transcription factor 1
P28076	V	N	R	V	F	D	K	L				990.574	Proteasome subunit beta type 9 precursor
P28660	V	I	L	S	F	R	S	L				934.573	Nck-associated protein 1
P29351	A	Q	Y	K	F	I	Y	V				1031.557	Tyrosine-protein phosphatase non-receptor type 6
P32233	A	A	Y	E	F	T	L					915.446	Developmentally-regulated GTP-binding protein 1
P33215	Y	S	L	F	R	K	S	L				1013.578	Protein NEDD1
P35396	S	Q	Y	L	F	P	K	L				995.557	Peroxisome proliferator-activated receptor delta
P35980	K	I	L	T	F	D	Q	L				977.567	60S ribosomal protein L18
P40201	R	V	L	I	F	S	Q	M				993.556	Chromodomain helicase DNA binding protein 1
P41438	S	S	Y	I	F	S	L	V				915.483	Folate transporter 1
P42227	A	T	L	V	F	H	N	L				914.51	Signal transducer and activator of transcription 3
P47753	I	S	F	K	F	D	H	L				1006.536	F-actin-capping protein subunit alpha-1
P53798	I	S	L	E	F	R	N	L				991.558	Squalene synthetase
P54823	I	N	F	D	F	P	K	L				993.541	Probable ATP-dependent RNA helicase DDX6
P55194	V	S	G	I	F	P	G	L				789.451	SH3 domain-binding protein 1
P56528	A	N	Y	E	F	S	Q	V				957.432	ADP-ribosyl cyclase 1
P61600	V	A	P	E	F	R	R	L				987.574	N-acetyltransferase 5
P62082	V	N	F	E	F	P	E	V				1028.473	40S ribosomal protein S7
P62245	V	I	V	R	F	L	T	V				946.609	40S ribosomal protein S15a
P63082	S	A	M	V	F	S	A	M				843.375	Vacuolar ATP synthase 16 kDa proteolipid subunit
P63085	V	G	P	R	Y	T	N	L				919.5	Mitogen-activated protein kinase 1
P68369	T	S	L	L	M	E	R	I				962.534	Tubulin alpha-1A chain
P68369	S	I	Y	P	A	P	Q	L				874.467	Tubulin alpha-1A chain
P68369	E	R	P	T	Y	T	N	L				993.5	Tubulin alpha 1A chain
P69566	T	Q	Q	L	Y	P	S	L				949.5	Ran binding protein 9
P97377	K	S	Y	L	F	Q	L	L				1011.588	Cell division protein kinase 2
P97481	S	N	Y	L	F	T	K	L				985.536	Endothelial PAS domain-containing protein 1
Q01237	S	S	F	V	F	S	T	V				873.436	3-hydroxy-3-methylglutaryl-coenzyme A reductase
Q02248	R	T	Y	T	Y	E	K	L				1073.567	Catenin beta-1
Q02257	R	N	Y	S	Y	E	K	L				1072.543	Junction plakoglobin
Q09014	E	I	Y	E	F	H	K	M				1096.514	Neutrophil cytosol factor 1
Q3TAA7	S	A	L	R	F	L	N	L				933.552	Serine/threonine kinase 11-interacting protein
Q3THF9	I	S	F	E	F	R	S	L				998.531	Protein COQ10 B, mitochondrial precursor

Q3TJZ6	A S P E F T K L	892.478	Protein FAM98A
Q3U507	V I L I F H S V	927.567	Probable G-protein coupled receptor 174
Q3UD82	S T F T F F Y V	965.462	Poly [ADP-ribose] polymerase 8
Q3UWM4	S N P E F F R Q L	990.501	JmjC domain-containing histone demethylation protein 1D
Q4QQM1	I L S L D Y N L L	950.52	Cytosolic phospholipase A2 beta
Q4VAE7	S S P K F S E L L	894.457	Cytoskeleton associated protein 5
Q52KE7	V I N V F H H L L	978.553	Cyclin L1
Q5H8C4	V S I Q F Y H L L	1006.536	Vacuolar protein sorting-associated protein 13A
Q5SWD9	R A Y L F A H V M	976.537	Pre-rRNA-processing protein TSR1 homolog
Q5SYH2	S Q Y V F T E M M	1004.44	Transmembrane protein 199
Q60775	L V Y Q F K E M M	1057.539	ETS-related transcription factor Elf-1
Q60805	T G P K Y I H L L	928.526	Proto oncogene tyrosine protein kinase MER precursor
Q61107	S T F V Y N S M M	948.414	Guanylate binding protein 4
Q61471	I S Y L Y N K L L	1013.567	Protein Tob1 - Mus musculus
Q61545	S N Y S Y P Q V V	957.432	RNA-binding protein EWS
Q61584	E I V T F E R L L	1006.557	Fragile X mental retardation syndrome-related protein 1
Q62141	V F T E V A N L L	892.478	Paired amphipathic helix protein Sin3b
Q62187	V A L K F S Q I L	905.546	Transcription termination factor 1
Q62425	V N V D Y S K L L	937.5	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 4
Q63844	V G P R Y T Q L L	933.516	Mitogen-activated protein kinase 3
Q64310	S S F V F L N L L	926.499	Surfeit locus protein 4
Q64343	V N I E F K D L L	977.531	ATP-binding cassette sub-family G member 1
Q64475	S V Y V Y K V L L	970.561	Histone H2B type 1-B
Q64475	V N D I F E R I L	1005.537	Histone H2B type 1-B
Q68925	T A P E Y V F L L	939.483	Protein strawberry notch homolog 1
Q6GQT6	S G Y D F S R L L	944.448	Sterol regulatory element-binding protein cleavage-activating protein
Q6NSR3	S G P T Y I K L L	878.499	Uncharacterized aarF domain-containing protein kinase 2
Q6P5F9	L I Y K F L N V V	1009.609	Exportin-1
Q6PCN7	S G F V F T R L L	926.51	Helicase-like transcription factor
Q6PJN8	T A P Q Y Y R L L	1011.526	DALR anticodon-binding domain-containing protein 3
Q6WKZ8	V A Y K F P E L L	966.53	E3 ubiquitin-protein ligase UBR2
Q6ZPE2	V A L L F R R Q L L	959.604	Myotubularin-related protein 5
Q71B07	S V V A F H N L L	886.479	Protein dpy-19 homolog 3
Q76M23	V A D K F T E L L	922.489	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform
Q791N7	T S V V F N K L L	907.525	DNA-directed RNA polymerase I subunit RPA12
Q7M6Y3	V A F D F T K V V	926.499	Phosphatidylinositol-binding clathrin assembly protein
Q7TN60	A S Y L F R G L L	926.51	Transmembrane channel-like protein 6
Q7TNB8	S A P E Y V F L L	925.467	Protein strawberry notch homolog 2
Q7TNP2	I V P L F T N L L	916.551	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A beta isoform
Q80VD1	S S P E F S E L L	895.405	Protein FAM98B
Q80YV3	I R T L Y L T L L	992.614	Transformation/transcription domain-associated protein
Q80ZV0	S S L L F V K L L	906.566	Ribonuclease H2 subunit B
Q8BVF2	K I I T Y R N L L	1020.621	PCI domain-containing protein 2
Q8BHB0	Q S Y E F F H L L	1070.495	Nucleotide-binding oligomerization domain-containing protein 1
Q8BHC4	V I Q V F Q Q L L	974.568	Dephospho-CoA kinase domain-containing protein
Q8BJW5	I A V S F R Q L L	934.536	Nucleolar protein 11
Q8BLR9	T N L V Y P A L L	890.499	Hypoxia-inducible factor 1 alpha inhibitor
Q8BM10	S A F S F R T L L	928.489	F box only protein 3b
Q8BRG6	I W I R V A S L L	957.589	Keich-like protein 24
Q8BU03	I F A Y R F S N L L	1017.516	Periodic tryptophan protein 2 homolog
Q8BXB6	L G C L T I P L L	829.486	Solute carrier organic anion transporter family member 2B1
Q8C008	I V T K F F Q V V	933.577	Ankyrin repeat-containing protein C20orf12 homolog
Q8CSN3	A S P I F T H V L	871.468	Nucampolin homolog
Q8CD15	V V Y I Y H S L L	993.541	Myc induced nuclear antigen
Q8CDD8	I N F D F N T I L	983.484	BTB/POZ domain-containing protein KCTD20
Q8CFA1	V A F A F K K L L	923.572	Interleukin-1 receptor-associated kinase-like 2
Q8CFB4	S T F V F N T M M	962.429	Guanylate-binding protein 5
Q8CG47	A A L D F K N V V	877.478	Structural maintenance of chromosomes protein 4
Q8CH77	S N I Q Y R S L L	980.516	Neuron navigator 1
Q8CHY3	F N S L Y T A L L	928.478	Dymeclin
Q8CIK8	N N Y V Y A G L L	913.442	RING finger and WD repeat domain-containing protein 3
Q8CIL4	F N L E K A R L L	990.574	Uncharacterized protein C1orf131 homolog
Q8K015	E A Y R F T G L L	956.484	Centromere protein O
Q8K0S9	A A F V F R K L L	951.578	snRNA-activating protein complex subunit 1
Q8K2K6	R G P T Y V N M M	937.457	Nucleoporin like protein RIP
Q8K2V6	T I I L F T K V V	934.598	Importin-11
Q8K2X8	V I A E L V N V V	856.514	TFIIH basal transcription factor complex TTD-A subunit
Q8K310	K N L R Y Q L L L	1047.632	Matrin-3
Q8K3W0	A T Q V Y P K L L	919.525	Protein BRE
Q8K4Z5	R N Y Q F D F L L	1102.532	Splicing factor 3 subunit 1
Q8QZK2	T S Y R F L A L L	970.536	Uncharacterized protein C4orf15 homolog
Q8R0P8	A A Y T F Y A L L	919.457	Abhydrolase domain-containing protein 8
Q8R1F1	A V Y T F E T L L	943.478	Niban-like protein
Q8R4V1	F N L V Y E N L L	1011.515	NFAT activation molecule 1 precursor
Q8R502	E I V S F Q H L L	972.515	Leucine-rich repeat-containing protein 8C
Q8VCP8	S G L K Y V N V V	879.494	Adenylylase kinase isoenzyme 6
Q91V92	S I A N F T N V V	865.442	ATP-citrate synthase
Q91XB7	S G Y K Y V G M M	904.424	Protein YIF1A
Q91YR7	V W L E A A R L L	957.552	Pre-mRNA-processing factor 6
Q91ZE5	S V I T Y V G L L	851.488	EGF-like module-containing mucin-like hormone receptor-like 4 precursor
Q91ZX7	L S H P F S I D L	915.458	Prolow density lipoprotein receptor related protein 1 precursor
Q920Q4	V S F T Y R Y L L	1048.547	Vacuolar protein sorting-associated protein 16 homolog
Q99KC8	A V Y S F E A L L	899.452	Loss of heterozygosity 11 chromosomal region 2 gene A protein homolog
Q99KH8	I S P L F A E L L	889.504	Serine/threonine-protein kinase 24
Q99KP6	R S L K F Y S L L	1013.578	Pre-mRNA-processing factor 19
Q99P81	S S Y F F G K L L	948.483	ATP-binding cassette sub-family G member 3
Q99PQ1	I S Y Q F S N L L	971.484	Tripertite motif-containing protein 12
Q9CPV7	S V I K F E N L L	949.536	Probable palmitoyltransferase ZDHHC6
Q9CQV4	T S L R F V F L L	982.573	Protein FAM134C
Q9CR47	S S P L Y T T L L	881.462	TGF-beta-inducible nuclear protein 1
Q9CR64	A I F N F Q T L L	939.494	Transmembrane protein 167 precursor
Q9CXF4	T N Y I F D S L L	972.468	TBC1 domain family member 15
Q9CZM2	S T Y K F F E V L	1020.504	60S ribosomal protein L15
Q9D306	V T L E F S K L L	936.541	Alpha-1,3-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase C
Q9D6T0	T S V R F T Q L L	951.526	Nitric oxide synthase-interacting protein
Q9D6Z1	Y G Y H F P E L L	1025.473	Nucleolar protein 5A
Q9D7G0	V S Y L F S H V V	951.494	Ribose-phosphate pyrophosphokinase 1
Q9D8E6	V N F V H T N L L	943.5	60S ribosomal protein L4
Q9D8N6	S T L I Y R N M M	997.514	Protein lin-37 homolog
Q9D902	S G Y K F G V L L	870.472	Transcription initiation factor IIE subunit beta
Q9DBT5	V G Y R Y E T L L	1000.51	AMP deaminase 2
Q9DBZ5	V G I T Y Q H I L	930.505	Eukaryotic translation initiation factor 3 subunit K
Q9DCF9	V A F A Y K N V V	911.499	Translocon-associated protein subunit gamma
Q9EPU0	S G Y I Y H K L L	980.52	Regulator of nonsense transcripts 1
Q9EQ06	T A Y E F A K L L	942.494	Estradiol 17-beta-dehydrogenase 11 precursor
Q9ERU9	S T F T F A D L L	901.431	E3 SUMO-protein ligase RanBP2
Q9EST5	V F R L L P Q L L	985.62	Acidic leucine-rich nuclear phosphoprotein 32 family member B
Q9JHD2	V Q Y K F S H L L	1021.547	General control of amino acid synthesis protein 5-like 2

Q9JHF7	I R Y I F A Y L	1058.604	Glutathione-requiring prostaglandin D synthase
Q9JH7	Q T Y D Y R N I	1072.506	Exosome complex exonuclease RRP45
Q9JHJ3	S A L V F T R L	906.541	Uncharacterized protein C1orf85 homolog precursor
Q9JHJ5	I V F K T N V L	933.577	5-hydroxytryptamine receptor 3B precursor
Q9JH78	I I I T F N D L	948.541	Peptide-N (4)-(N-acetyl-beta-glucosaminy)asparagine amidase
Q9JIF7	I A L R Y V A L	918.578	Coatomer subunit beta
Q9JJU8	A V Y A F L G L	853.482	SH3 domain-binding glutamic acid-rich-like protein
Q9JL26	L Q Y E F T H L	1050.526	Formin-like protein 1
Q9JLJ1	V V F F F K T L	1000.587	Selenoprotein K
Q9QUG9	V G F R F P I L	948.567	RAS guanyl-releasing protein 2
Q9QXB9	A S Y E F T T L	931.441	Developmentally-regulated GTP-binding protein 2
Q9QXK3	A T Y I F N G L	898.467	Coatomer subunit gamma-2
Q9QZ88	V T Y V Y Q L I	998.556	Vacuolar protein sorting-associated protein 29
Q9QZ19	Y S Y S F F H L	1063.489	Serine incorporator 3
Q9R190	S I V Q F Y Y M	1050.497	Metastasis-associated protein MTA2
Q9R1T2	H G Y T F A N L	922.442	SUMO activating enzyme subunit 1
Q9WUK4	A V L R Y T K L	963.599	Replication factor C subunit 2
Q9WUR2	S S Y T F P K M	960.45	Peroxisomal 3,2 trans enoyl CoA isomerase
Q9WVC6	S T L T Y S R M	958.467	Serine/threonine protein kinase Sgk1
Q9Z0S9	S N Y V F V F L	988.514	Prenylated Rab acceptor protein 1
Q9Z1N2	P H R A T P Q I	919.511	Origin recognition complex subunit 1
Q9Z2C4	S A F E F N E L	956.437	Myotubularin-related protein 1
Q9Z2R6	G T V L F E I K	906.53	Protein unc-119 homolog
Q9Z2R9	S S I V F A E L	865.467	Eukaryotic translation initiation factor 2-alpha kinase 1

161 K<sup>b</sup> peptides (ERAAP-deficient spleen cells)

Accession #	Peptides										Bulge	m/z	Protein entry name	
	1	2	3	4	5	6	7	8	9	10				
P59672	S	F	L	S	G	Y	S	S	I		N-	X	1047.5	Ankyrin repeat and SAM domain-containing protein 1A
Q8CIR4	V	A	I	G	L	F	A	V	G	F	X	X	993.577	Transient receptor potential cation channel subfamily M member 6
P14434	V	N	R	D	Y	S	F	H	K	L	X	X	1278.66	H 2 class II histocompatibility antigen, A B alpha chain precursor
Q9Z127	V	A	V	D	F	G	N	Y	H	L	X	X	1134.558	Large neutral amino acids transporter small subunit 1
P28867	K	N	H	E	F	I	A	T	F		X	X	1106.564	Protein kinase C delta type
Q64430	S	T	L	Q	Y	V	S	S	I		X	X	997.521	Copper-transporting ATPase 1
Q8R420	V	D	L	T	F	P	G	S	I		X	X	948.479	ATP-binding cassette sub-family A member 3
Q9D267	V	E	T	D	Y	S	M	Y	I		X	X	1134.499	Epididymal-specific lipocalin-9 precursor
Q91V92	V	L	A	S	F	I	S	G	L		X	X	906.53	ATP-citrate synthase
P05132	V	N	F	P	F	L	V	K	L		X	X	1076.651	cAMP-dependent protein kinase, alpha-catalytic subunit
Q9R0N0	A	T	Y	T	F	I	Q	Q	L		X	X	1084.568	Galactokinase
P60710	V	A	L	D	F	E	Q	E	M		X	X	1081.488	Actin, cytoplasmic 1
Q6P5F9	T	I	L	E	F	S	Q	N	M		X	X	1082.519	Exportin 1
Q99KU6	E	L	F	P	V	F	T	Q	L		X	X	1093.593	Uncharacterized protein C6orf89 homolog
O35643	S	T	L	Y	P	L	H	V	L	F			1189.662	AP-1 complex subunit beta-1
Q8BG48	S	I	Y	P	L	G	D	I	K	I			1118.646	Serine/threonine-protein kinase 17B
Q8BXJ2	L	P	L	D	Q	L	S	L	M	K			1157.642	Transcriptional-regulating factor 1
Q9JUX7	T	V	I	F	A	G	D	T	N	L			1050.547	TRAF and TNF receptor-associated protein
P11610	P	S	S	A	H	G	H	Q	L	L			1046.527	T-cell surface glycoprotein CD1d2 precursor
Q99KU6	R	E	L	F	P	V	F	T	Q	L			1249.695	Uncharacterized protein C6orf89 homolog
Q5DTZ0	L	E	V	T	V	S	Q	V	S	L			1074.605	Integrase catalytic domain-containing protein KIAA1305
Q9JHW4	F	V	V	P	L	P	Q	A	E	P			1025.567	Selenocysteine-specific elongation factor
P01887	I	Q	K	T	P	Q	I	Q	V	Y			1217.689	Beta-2-microglobulin precursor
P59644	S	V	G	Q	L	V	V	S	A				859.489	Phosphatidylinositol 4,5-bisphosphate 5-phosphatase A
Q8VCF1	L	A	E	K	G	R	G	M	E				990.504	Soluble calcium-activated nucleotidase 1
Q8BYK6	G	V	F	S	Q	P	G	A	L				875.463	YTH domain family protein 3
P14685	R	V	Y	E	F	L	D	K	L				1182.677	26S proteasome non-ATPase regulatory subunit 3
Q99ME9	Q	I	L	S	D	F	P	K	L				1060.604	Nucleolar GTP-binding protein 1
Q6PGC7	I	A	A	G	L	L	F	N	L				931.562	Solute carrier family 35 member E3
Q9D1G0	Y	G	F	V	S	K	P	L					997.536	Deoxyribonuclease I-like 2 precursor
P04441	S	G	P	L	E	Y	P	Q	L				1003.51	H-2 class II histocompatibility antigen gamma chain
P68433	T	I	M	P	K	D	I	Q	L				1058.592	Histone H3.1
P46978	A	V	L	S	F	S	T	R	L				993.573	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit STT3A
Q8R3L2	R	N	Y	E	Y	L	I	R	L				1239.685	Transcription factor 25
Q9CR67	Q	S	I	A	F	I	S	R	L				1034.6	Transmembrane protein 33
Q9JHU4	A	S	Y	E	F	V	Q	R	L				1112.574	Dynein heavy chain 1, cytoplasmic 1
Q5SNZ0	Q	L	E	K	T	I	E	T	L				1074.605	Girdin
Q8BW96	K	I	F	E	F	K	E	T	L				1154.646	Calcium/calmodulin-dependent protein kinase type 1D
Q9Z1E3	A	I	V	E	H	L	V	T	L				994.594	NF-kappa-B inhibitor alpha
Q8CGZ0	K	S	Y	S	F	I	A	R	M				1102.572	Calcium homeostasis endoplasmic reticulum protein
P14142	I	S	A	A	F	R	R	T	P				1018.58	Solute carrier family 2, facilitated glucose transporter member 4
Q8C0F9	L	V	Y	R	F	C	S	V	S				1073.545	Inactive serine protease 35 precursor
Q8CIZ8	V	L	Q	Y	S	Y	T	V	T				1073.552	von Willebrand factor precursor
Q8K2H4	I	N	Q	I	Y	E	A	R	V				1105.601	Centaurin-beta-1
Q6ZVW3	T	V	F	S	H	A	Q	T	V				989.506	40S ribosomal protein S27-like protein
Q912X7	L	S	H	P	F	S	I	D				915.458	Prolow density lipoprotein receptor related protein 1 precursor	
P62082	V	N	F	E	F	P	E	F				1028.473	40S ribosomal protein S7	
Q9EQQ9	S	S	A	Q	F	L	I	G				822.436	Bifunctional protein NCOAT	
O70481	S	T	F	E	F	H	S	I				967.452	E3 ubiquitin protein ligase UBR1	
O88427	S	N	Y	I	F	T	A	I				928.478	Voltage-dependent T-type calcium channel subunit alpha-1H	
P22366	S	I	L	R	F	I	T	I				962.604	Myeloid differentiation primary response protein MyD88	
Q64475	V	N	D	I	F	E	R	I				1005.537	Histone H2B type 1-B	
Q75UR0	L	N	F	F	Y	E	K	I				1073.567	Transmembrane protein 16E	
Q8CDD8	I	N	F	D	F	N	T	I				983.484	BTB/POZ domain-containing protein KCTD20	
Q9CY50	A	T	F	E	Y	S	F	I				977.462	Translocon-associated protein subunit alpha precursor	
Q9DBZ5	V	G	I	T	Y	Q	H	I				930.505	Eukaryotic translation initiation factor 3 subunit K	
O70126	Y	P	W	P	Y	G	S	K				997.478	Serine/threonine-protein kinase 12	
P70699	T	S	P	T	F	F	P	K				924.483	Lysosomal alpha glucosidase precursor	
A2APV2	L	Q	Y	E	F	T	K	L				1041.562	Formin-like protein 2	
A2RSY6	R	S	F	D	F	I	H	L				1034.542	TRM1-like protein	
O08575	T	I	I	I	F	H	S	L				943.562	Eyes absent homolog 2	
O54692	S	T	V	E	F	T	N	L				910.452	Centromere/kinetochore protein zw10 homolog	
O55013	S	A	L	I	Y	S	N	L				880.478	Trafficking protein particle complex subunit 3	
P01867	S	V	H	T	F	P	A	L				871.468	Ig gamma-2B chain C region, membrane-bound form	
P15307	T	T	L	I	F	Q	K	L				963.588	C-Rel proto-oncogene protein	
P18760	I	S	L	E	G	K	P	L				856.514	Cofilin-1 - Mus musculus (Mouse) [MASS=18559]	
P23116	Q	S	I	E	F	S	R	L				979.521	Eukaryotic translation initiation factor 3 subunit A	
P23475	V	S	P	Y	F	V	A	L				895.493	ATP-dependent DNA helicase 2 subunit 1	
P32233	A	A	Y	E	F	T	L				915.446	Developmentally-regulated GTP-binding protein 1		
P33215	Y	S	L	F	R	K	S	L				1013.578	Protein NEDD1	
P42227	A	T	L	V	F	H	N	L				914.51	Signal transducer and activator of transcription 3	
P47753	I	S	F	K	F	D	H	L				1006.536	F-actin-capping protein subunit alpha-1	
P54823	I	N	F	D	F	P	K	L				993.541	Probable ATP-dependent RNA helicase DDX6	
P55194	V	S	G	I	F	P	G	L				789.451	SH3 domain-binding protein 1	
P58749	V	T	Y	I	F	N	H	L				1006.536	Transmembrane 6 superfamily member 1	
P97377	K	S	Y	L	F	Q	L	L				1011.588	Cell division protein kinase 2	
P97481	S	N	Y	L	F	T	K	L				985.536	Endothelial PAS domain-containing protein 1	
P99027	A	S	Y	L	L	A	A	L				821.477	60S acidic ribosomal protein P2	
Q02248	R	T	Y	T	Y	E	K	L				1073.567	Catenin beta-1	
Q02257	R	N	Y	S	Y	E	K	L				1072.543	Junction plakoglobin	
Q3TAA7	S	A	L	R	F	L	N	L				933.552	Serine/threonine kinase 11-interacting protein	
Q3THF9	I	S	F	E	F	R	S	L				998.531	Protein COQ10 B, mitochondrial precursor	
Q61471	I	S	Y	L	Y	N	K	L				1013.567	Protein Tob1	
Q62351	K	A	F	T	Y	I	N	L				969.541	Transferrin receptor protein 1	
Q62425	V	N	V	D	Y	S	K	L				937.5	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 4	
Q64310	S	S	F	V	F	L	N	L				926.499	Surfeit locus protein 4	
Q64343	V	N	I	E	F	K	D	L				977.531	ATP-binding cassette sub-family G member 1	
Q64475	S	V	Y	V	Y	K	V	L				970.561	Histone H2B type 1-B	
Q64693	S	G	P	Q	V	F	V	Q	L			875.463	POU domain class 2-associating factor 1	
Q68925	T	A	P	E	Y	V	F	L			939.483	Protein strawberry notch homolog 1		
Q6PCN7	S	G	F	V	F	T	R	L			926.51	Helicase-like transcription factor		
Q6PJN8	T	A	P	Q	Y	Y	R	L			1011.526	DALR anticodon-binding domain-containing protein 3		
Q6WKZ8	V	A	Y	K	F	P	E	L			966.53	E3 ubiquitin-protein ligase UBR2		
Q6ZPE2	V	A	L	L	F	R	Q	L			959.604	Myotubularin-related protein 5		
Q71B07	S	V	V	A	F	H	N	L			886.479	Protein dpy-19 homolog 3		
Q76M23	V	A	D	K	F	T	E	L			922.489	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform		
Q7TMY7	Q	N	H	V	F	P	L	L			967.537	Importin-8		
Q7TNB8	S	A	P	E	Y	V	F	L			925.467	Protein strawberry notch homolog 2		
Q80TY5	M	S	F	Q	F	A	H	L			980.466	Vacuolar protein sorting associated protein 13B		
Q80W47	S	G	Y	K	F	F	S	L			948.483	WD repeat domain phosphoinositide-interacting protein 2		
Q80ZV0	S	S	L	L	F	V	K	L			906.566	Ribonuclease H2 subunit B		

Q8BH0	Q	S	Y	E	F	F	H	L	1070.495	Nucleotide-binding oligomerization domain-containing protein 1
Q8BH4	V	I	Q	V	F	Q	Q	L	974.568	Dephospho-CoA kinase domain-containing protein
Q8BJ4	S	F	A	P	V	T	K	L	862.504	Limkain-b1
Q8CF6	T	I	L	S	F	T	N	L	908.509	Sodium-coupled neutral amino acid transporter 2
Q8CH7	N	L	F	V	F	K	E	L	1009.572	Rap guanine nucleotide exchange factor 2
Q8CHR8	A	A	Y	E	F	T	T	L	915.446	Developmentally regulated GTP binding protein 1
Q8K02	S	V	Y	T	H	S	Y	L	969.468	Ectonucleoside triphosphate diphosphohydrolase 8
Q8K3W0	A	T	Q	V	Y	P	K	L	919.525	Protein BRE
Q8K4Z5	R	N	Y	Q	F	D	F	L	1102.532	Splicing factor 3 subunit 1
Q8R0P8	A	A	Y	T	F	Y	A	L	919.457	Abhydrolase domain-containing protein 8
Q8VCC8	L	L	R	K	F	I	K	L	1030.714	Rap guanine nucleotide exchange factor 3
Q91ZE5	S	V	I	T	Y	V	G	L	851.488	EGF-like module-containing mucin-like hormone receptor-like 4 precursor
Q920Q4	V	S	F	T	Y	R	Y	L	1048.547	Vacuolar protein sorting-associated protein 16 homolog
Q924N4	S	A	A	R	F	A	L	L	848.499	Solute carrier family 12 member 6
Q99KC8	A	V	Y	S	F	E	A	L	899.452	Loss of heterozygosity 11 chromosomal region 2 gene A protein homolog
Q99LM9	S	V	V	A	Y	N	N	L	879.458	Transcriptional adapter 1-like protein
Q99P81	S	S	Y	F	F	G	K	L	948.483	ATP-binding cassette sub-family G member 3
Q99PQ1	I	S	Y	Q	F	S	N	L	971.484	Tripartite motif-containing protein 12
Q9CPV7	S	V	I	K	F	E	N	L	949.536	Probable palmitoyltransferase ZDHHC6
Q9CXF4	T	N	Y	I	F	D	S	L	972.468	TBC1 domain family member 15
Q9CXV1	S	A	L	T	F	A	G	L	779.43	Succinate dehydrogenase [ubiquinone] cytochrome b small subunit,
Q9D6T0	T	S	V	R	F	T	Q	L	951.526	Nitric oxide synthase-interacting protein
Q9D8E6	V	N	F	V	H	T	N	L	943.5	60S ribosomal protein L4
Q9DA79	V	L	R	S	F	Y	E	L	1026.562	Dipeptidase 3 precursor
Q9DBT5	V	G	Y	R	Y	E	T	L	1000.51	AMP deaminase 2
Q9EPU0	S	G	Y	I	Y	H	K	L	980.52	Regulator of nonsense transcripts 1
Q9EQ6	T	A	Y	E	F	A	K	L	942.494	Estradiol 17-beta-dehydrogenase 11 precursor
Q9EST5	V	F	R	L	L	P	Q	L	985.62	Acidic leucine-rich nuclear phosphoprotein 32 family member B
Q9JHD2	V	Q	Y	K	F	S	H	L	1021.547	General control of amino acid synthesis protein 5-like 2
Q9JHJ3	S	A	L	V	F	T	R	L	906.541	Uncharacterized protein C1orf85 homolog precursor
Q9JL26	L	Q	Y	E	F	T	H	L	1050.526	Formin-like protein 1
Q9JLJ1	V	V	F	F	F	K	T	L	1000.587	Selenoprotein K
Q9QUG9	V	G	F	R	F	P	I	L	948.567	RAS guanyl-releasing protein 2
Q9QXB9	A	S	Y	E	F	T	T	L	931.441	Developmentally-regulated GTP-binding protein 2
Q9R0H0	T	A	Y	A	F	H	F	L	969.483	Acyl-coenzyme A oxidase 1, peroxisomal
Q9R1T2	H	G	Y	T	F	A	N	L	922.442	SUMO activating enzyme subunit 1
Q9WVK4	S	S	G	D	F	P	S	L	809.368	EH domain-containing protein 1
Q9Z0M6	L	S	Y	I	F	T	L	L	969.566	CD97 antigen precursor
Q9Z1K8	A	L	A	L	Y	S	A	L	821.477	Y+L amino acid transporter 1
Q9Z2C4	S	A	F	E	F	N	E	L	956.437	Myotubularin-related protein 1
O09159	S	T	Y	S	V	A	K	M	886.434	Lysosomal alpha mannosidase precursor
P40336	R	S	Y	D	F	E	F	M	1094.462	Vacuolar protein sorting-associated protein 26A
Q91XB7	S	G	Y	K	Y	V	G	M	904.424	Protein YIF1A
Q9WJUR2	S	S	Y	T	F	P	K	M	960.45	Peroxisomal 3,2 trans enoyl CoA isomerase
Q9QWK5	Q	S	I	E	F	R	L	S	979.521	Baculoviral IAP repeat containing protein 1a
Q9R144	N	A	Y	E	F	N	L	S	957.432	Protein arginine N-methyltransferase 2
P29351	A	Q	Y	K	F	I	Y	V	1031.557	Tyrosine protein phosphatase non receptor type 6
P29351	A	Q	Y	K	F	I	Y	V	1031.557	Tyrosine-protein phosphatase non-receptor type 6
P56528	A	N	Y	E	F	S	Q	V	957.432	ADP-ribosyl cyclase 1
P62245	V	I	V	R	F	L	T	V	946.609	40S ribosomal protein S15a
Q01237	S	S	F	V	F	S	T	V	873.436	3-hydroxy-3-methylglutaryl-coenzyme A reductase
Q3U507	V	I	L	I	F	H	S	V	927.567	Probable G-protein coupled receptor 174
Q6SW09	R	A	Y	L	F	A	H	V	976.537	Pre-rRNA-processing protein TSR1 homolog
Q81545	S	N	Y	S	Y	P	Q	V	957.432	RNA-binding protein EWS
Q8PF59	L	I	Y	K	F	L	N	V	1009.609	Exportin-1
Q8CG47	A	A	L	D	F	K	N	V	877.478	Structural maintenance of chromosomes protein 4
Q8K2X8	V	I	A	E	L	V	N	V	856.514	TFIIH basal transcription factor complex TTD-A subunit
Q8VCP8	S	G	L	K	Y	V	N	V	879.494	Adenylate kinase isoenzyme 6
Q9CZM2	S	T	Y	K	F	E	V		1020.504	60S ribosomal protein L15
P09632	V	N	S	L	F	S	K	Y	957.505	Homeobox protein Hox-B8 mitochondrial precursor