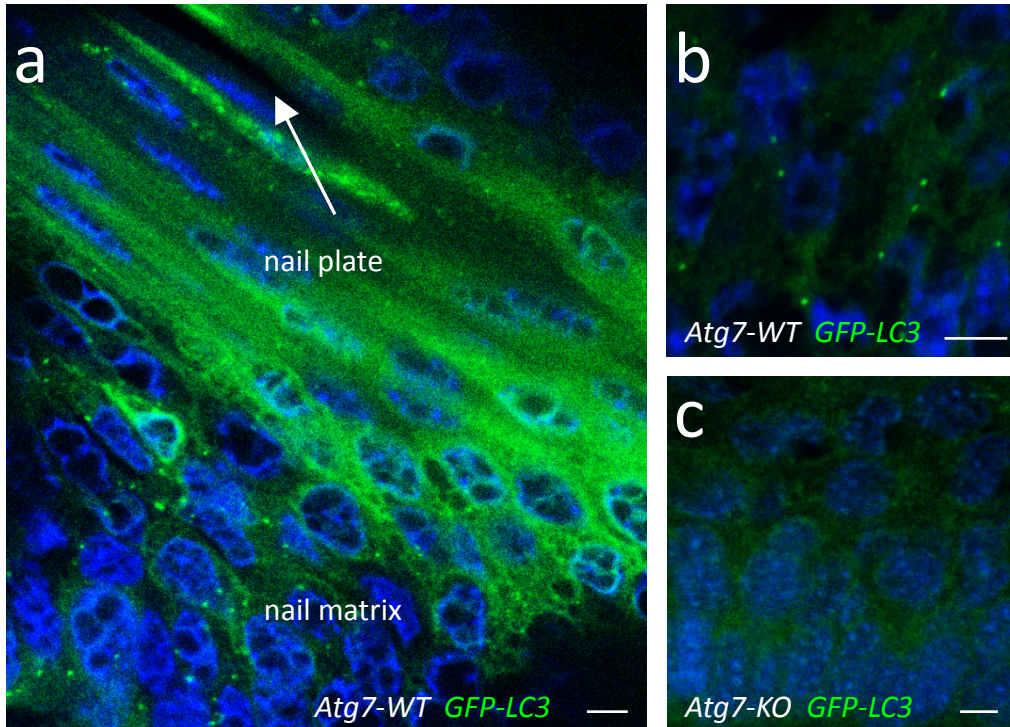
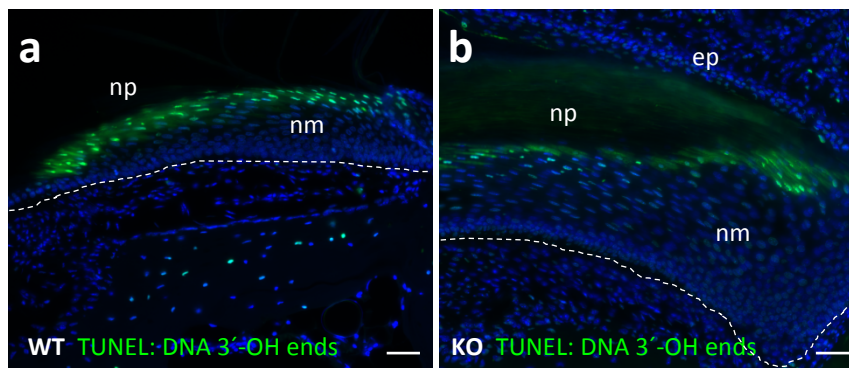


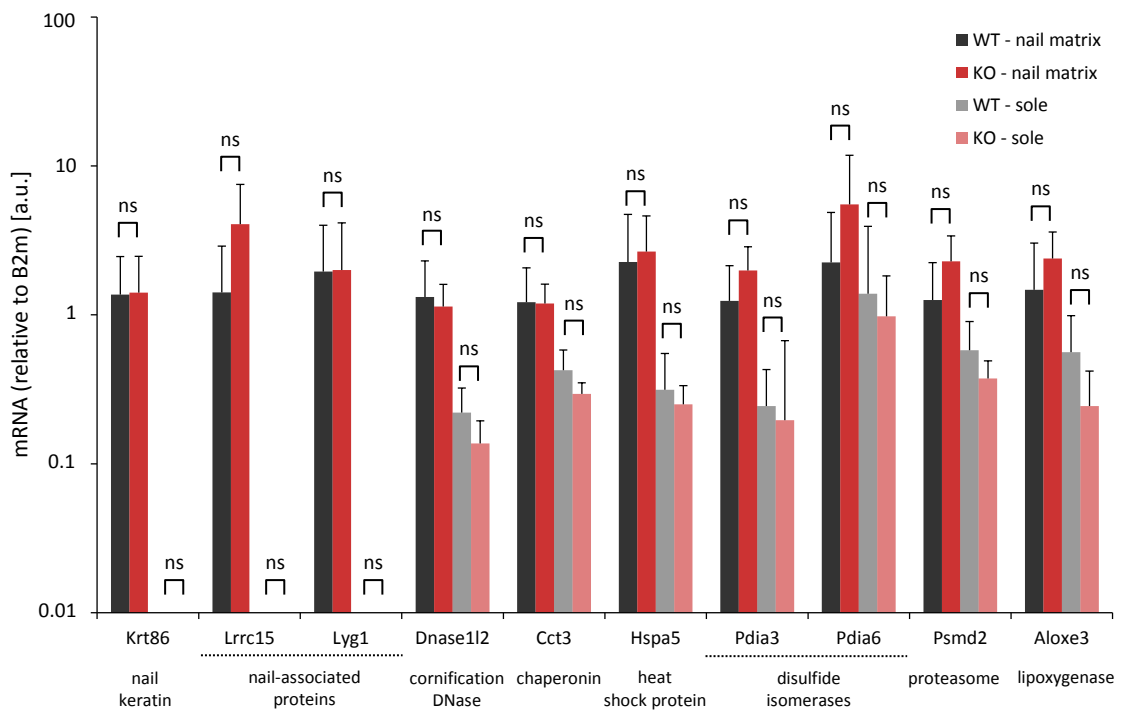
**Supplementary Figure S1. Shape of nails of WT and *Atg7* KO mice.** Toes were prepared from hindlimbs of sacrificed mice (WT: a, c, e; KO: b, d, f) and photographed under a stereomicroscope. Three representative nails per genotype are shown. More than 10 mice per genotype were investigated. There were no consistent differences in nail shape between the genotypes. Size bars, 500  $\mu$ m.



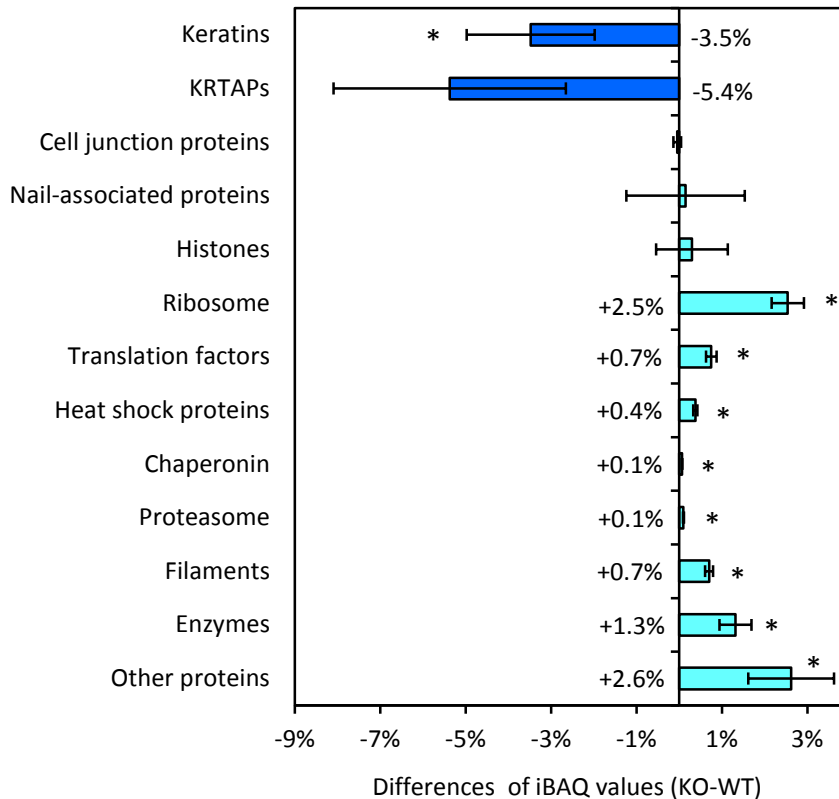
**Supplementary Figure S2. GFP-LC3 puncta indicate autophagosomes in nail matrix keratinocytes of *Atg7<sup>fl/fl</sup> GFP-LC3* but not *Atg7<sup>fl/fl</sup> K14-Cre GFP-LC3* mice.** The transgene *GFP-LC3* (Mizushima et al., 2004), encoding the recombinant fusion of green fluorescent protein (GFP) and the autophagy adapter LC3, was introduced into *Atg7<sup>fl/fl</sup>* and *Atg7<sup>fl/fl</sup> K14-Cre* mice as reported previously (Sukeree et al., 2012). The nail matrix samples of *Atg7<sup>fl/fl</sup> (Atg7-WT) GFP-LC3* (a, b) and *Atg7<sup>fl/fl</sup> K14-Cre (Atg7-KO) GFP-LC3* (c) mice were embedded in optimal cutting temperature (OCT) compound in liquid nitrogen. Cryosections were counterstained with DNA-specific Hoechst dye (blue) and viewed under a laser scanning microscope. GFP-LC3-labeled autophagosomes are visible as green puncta. Note the absence of puncta in the nail matrix of *Atg7-KO GFP-LC3* mice. Scale bars, 5  $\mu\text{m}$ .



**Supplementary Figure S3. Cell death occurs during cornification of nail keratinocytes but not in cells of the nail matrix in *Atg7<sup>fl/fl</sup>* (WT) and *Atg7<sup>fl/fl</sup> K14-Cre* (KO) mice.** Formaldehyde-fixed and paraffin-embedded toes of WT (a) and KO (b) mice were sectioned and subjected to terminal deoxynucleotidyl transferase dUTP nick end labeling (TUNEL) according to a published protocol (Fischer et al., 2005). DNA 3'-OH ends are labeled green. DNA was labeled with Hoechst dye (blue). The images are representative for n=3 mice per genotype. The dermo-epidermal junction is indicated by a broken white line. ep, eponychium; nm, nail matrix; np, nail plate. Scale bars, 20  $\mu$ m.



**Supplementary Figure S4. Quantification of mRNAs in the nail matrix and sole skin.** RNA was extracted from the nail matrix (cells attaching to isolated nails) and from the sole skin of WT and KO mice (n=5 per genotype), reverse-transcribed, and subjected to quantitative PCR (qPCR) as described in the Methods section. The mRNA levels of the target genes relative to mRNA of the house-keeping gene *B2m* [29] are shown. qPCR Ct values of *B2m* were not significantly different between WT and KO samples from the same tissue (nail matrix or sole). Bars show means and error bars show standard deviations. a.u., arbitrary units; n.s., not significant ( $P > 0.05$ , 2-sided t-test).



**Supplementary Figure S5. The abundance of non-structural proteins is significantly increased in cornified nails of *Atg7* KO (*Atg7<sup>fl/fl</sup> K14-Cre*) mice.** Bars indicate the difference in the abundance (% of total IBAQ values) of the main protein groups in KO and WT nails, as indicated in Table 1. 2-tailed t-test. \*, significantly different ( $p < 0.05$ , t-test). IBAQ, intensity-based absolute quantification; KO, knockout; KRTAP, keratin-associated protein; WT, wildtype.

#	Identified proteins	Protein group	Accession number	Symbol	WT1	WT2	IBAQ	K01	K02	K03	K04	Ratio KO/WT
1	<b>Cluster of Keratin, type II cuticular Hb1 OS-Mus musculus GN-Krt16 PE-2 SV-2 (KRT16_MOUSE)</b>	Keratin	<b>KRT16_MOUSE [8]</b>	<b>KRT16 Cluster</b>	1,466.10	1,235.10	1,496.41	1,196.11	1,306.10	1,126.10	1,074.10	0.86
1.1	Keratin, type II cuticular 87 OS-Mus musculus GN-Krt87 PE-2 SV-2	Keratin	KRT87_MOUSE	Krt87	1,436.10	1,156.10	1,486.10	1,146.10	1,251.10	1,074.10	1,074.10	0.85
1.2	Keratin, type II cuticular Hb5 OS-Mus musculus GN-Krt85 PE-1 SV-2	Keratin	KRT85_MOUSE	Krt85	1,095.10	6,896.10	9,721.10	6,689.10	7,256.10	6,346.10	6,346.10	0.79
1.3	Keratin, type II cuticular Hb6 OS-Mus musculus GN-Krt86 PE-2 SV-2	Keratin	KRT86_MOUSE	Krt86	1,606.10	1,516.10	1,727.10	1,634.10	1,605.10	1,345.10	1,345.10	0.89
1.4	Keratin 83 OS-Mus musculus GN-Krt83 PE-1 SV-2	Keratin	KRT83_MOUSE	Krt83	1,384.10	1,384.10	1,379.10	1,374.10	1,332.10	1,332.10	1,332.10	0.86
1.5	Keratin, type II cuticular Hb1 OS-Mus musculus GN-Krt81 PE-2 SV-2	Keratin	KRT81_MOUSE	Krt81	1,686.10	1,486.10	1,728.10	1,436.10	1,586.10	1,176.10	1,176.10	0.89
2	<b>Cluster of Keratin, type I cuticular Ha3 OS-Mus musculus GN-Krt33b PE-1 SV-2 (KRT33b_MOUSE)</b>	Keratin	<b>KRT33b_MOUSE [11]</b>	<b>Krt33b Cluster</b>	1,256.10	1,226.10	1,172.10	1,147.10	1,076.10	1,137.10	1,137.10	0.85
2.1	Keratin, type I cuticular Hb3 OS-Mus musculus GN-Krt33a PE-1 SV-2	Keratin	KRT33a_MOUSE	Krt33a	1,256.10	1,226.10	1,172.10	1,147.10	1,076.10	1,137.10	1,137.10	0.85
2.4	Keratin, type I cuticular Ha3 OS-Mus musculus GN-Krt33a PE-1 SV-2	Keratin	KRT33a_MOUSE	Krt33a	1,156.10	1,065.10	1,206.10	8,606.10	9,976.10	9,976.10	9,976.10	0.86
3	<b>Cluster of Keratin, type II cuticular Hb4 OS-Mus musculus GN-Krt4 PE-2 SV-2 (KRT4_MOUSE)</b>	Keratin	<b>KRT4_MOUSE [12]</b>	<b>Krt4 Cluster</b>	1,026.10	1,076.10	1,086.10	1,306.10	1,116.10	9,982.10	9,982.10	1.07
3.1	Keratin, type II cuticular Hb4 OS-Mus musculus GN-Krt4 PE-2 SV-2	Keratin	KRT4_MOUSE	Krt4	1,716.10	1,826.10	1,796.10	1,826.10	1,926.10	1,556.10	1,556.10	0.99
3.2	Keratin 90 OS-Mus musculus GN-Krt90 PE-1 SV-2	Keratin	KRT90_MOUSE	Krt90	9,826.10	6,256.10	9,796.10	1,036.10	1,036.10	9,516.10	9,516.10	1.19
3.3	Keratin, type I cytoskeletal 6B OS-Mus musculus GN-Krt6 PE-1 SV-2	Keratin	KRT6_MOUSE	Krt6	4,096.10	3,986.10	4,406.10	6,366.10	3,766.10	4,476.10	4,476.10	1.15
3.4	Keratin, type I cytoskeletal 1A OS-Mus musculus GN-Krt14 PE-1 SV-2	Keratin	KRT14_MOUSE	Krt14	6,356.10	5,456.10	6,416.10	6,586.10	3,746.10	4,586.10	4,586.10	0.84
4.3	Keratin 15, isoform CRA_1 OS-Mus musculus GN-Krt15 PE-1 SV-2	Keratin	KRT15_MOUSE	Krt15	4,846.10	2,576.10	4,976.10	3,966.10	2,136.10	2,166.10	2,166.10	0.67
5	Desmoglein OS-Mus musculus GN-Dsg PE-1 SV-2	Cell junctional proteins	<b>Dsg_MOUSE [5]</b>	<b>Dsg</b>	9,406.10	4,196.10	1,126.10	1,116.10	1,146.10	1,236.10	1,236.10	1.03
6	Leucine-rich repeat-containing protein 15 OS-Mus musculus GN-Lrrc15 PE-1 SV-2	Nail-associated proteins	<b>Lrrc15_MOUSE</b>	<b>Lrrc15</b>	5,106.10	7,396.10	5,356.10	4,716.10	6,056.10	7,416.10	7,416.10	1.02
7	<b>Cluster of Keratin-associated protein 4-16 OS-Mus musculus GN-Krtap4-16 PE-1 SV-1 (Q91W93_MOUSE)</b>	KRTAP	<b>Q91W93_MOUSE [13]</b>	<b>Krtap4-16 Cluster</b>	2,656.10	1,786.10	2,756.10	2,926.10	1,936.10	2,006.10	2,006.10	0.74
7.1	Predicted gene 11555 OS-Mus musculus GN-Gm11555 PE-4 SV-1	KRTAP	E9PWW3_MOUSE	Gm11555	2,156.10	1,516.10	2,206.10	2,946.10	2,056.10	1,556.10	1,556.10	0.94
7.2	Keratin-associated protein 4-16 OS-Mus musculus GN-Krtap4-16 PE-1 SV-1	KRTAP	Q1W82_MOUSE	Krtap4-16	1,316.10	5,756.10	1,516.10	2,936.10	7,596.10	7,216.10	7,216.10	0.52
7.11	Keratin-associated protein 4-9 OS-Mus musculus GN-Krtap4-9 PE-1 SV-1	KRTAP	Q1QA9_MOUSE	Krtap4-9	2,926.10	2,026.10	3,126.10	2,016.10	1,726.10	2,006.10	2,006.10	0.61
7.12	Keratin-associated protein 4-7 OS-Mus musculus GN-Krtap4-7 PE-2 SV-1	KRTAP	Q9D732_MOUSE	Krtap4-7	3,696.10	2,646.10	3,866.10	3,466.10	2,756.10	2,776.10	2,776.10	0.78
7.13	Predicted gene 11554 OS-Mus musculus GN-Gm11554 PE-4 SV-1	KRTAP	Q1AQ82_MOUSE	Gm11554	2,096.10	1,336.10	2,286.10	1,466.10	1,016.10	1,676.10	1,676.10	0.78
7.2	MCG140230 OS-Mus musculus GN-Gm11596 PE-4 SV-1	KRTAP	Q9V4B7_MOUSE	Gm11596	2,726.10	1,626.10	2,846.10	2,826.10	1,666.10	1,846.10	1,846.10	0.63
7.3	Keratin-associated protein 4-6 OS-Mus musculus GN-Krtap4-6 PE-1 SV-1	KRTAP	Q3V4B7_MOUSE	Krtap4-6	3,826.10	2,556.10	3,936.10	2,966.10	2,526.10	1,486.10	1,486.10	0.67
7.5	Predicted gene 11563 OS-Mus musculus GN-Gm11563 PE-4 SV-1	KRTAP	Q1A90_MOUSE	Gm11563	2,946.10	1,886.10	2,856.10	2,716.10	2,976.10	1,966.10	1,966.10	0.71
7.1	Keratin-associated protein 4-1 OS-Mus musculus GN-Krtap4-1 PE-2 SV-1	KRTAP	Q3WA1_MOUSE	Krtap4-1	3,356.10	2,536.10	3,496.10	3,516.10	2,366.10	1,706.10	1,706.10	1.05
7.8	Keratin-associated protein 4-2 OS-Mus musculus GN-Krtap4-2 PE-4 SV-1	KRTAP	Q1A95_MOUSE	Krtap4-2	2,306.10	1,626.10	2,376.10	2,196.10	2,436.10	1,866.10	1,866.10	1.00
7.9	MCG140213 OS-Mus musculus GN-Gm11596 PE-4 SV-1	KRTAP	Q1A90_MOUSE	Gm11596	1,916.10	1,316.10	2,116.10	1,286.10	1,026.10	8,006.10	8,006.10	0.58
8	Krtap4-2 protein OS-Mus musculus GN-Gm11562 PE-2 SV-1	KRTAP	ADPK5_MOUSE [1+]	Gm11562	1,206.10	8,246.10	8,846.10	8,686.10	9,146.10	1,026.10	1,026.10	1.00
9	<b>Cluster of Keratin, type I cuticular Ha2 OS-Mus musculus GN-Krt36 PE-1 SV-1 (KRT36_MOUSE)</b>	Keratin	<b>KRT36_MOUSE [5]</b>	<b>Krt36 Cluster</b>	3,416.10	4,376.10	3,616.10	3,476.10	3,486.10	3,526.10	3,526.10	0.92
9.1	Keratin, type I cuticular Ha2 OS-Mus musculus GN-Krt36 PE-1 SV-1	Keratin	KRT36_MOUSE	Krt36	3,416.10	4,376.10	3,616.10	3,476.10	3,486.10	3,526.10	3,526.10	0.92
9.3	Keratin, type I cuticular Ha2 OS-Mus musculus GN-Krt32 PE-1 SV-1	Keratin	BIAT75_MOUSE [2+]	Krt32	7,096.10	6,206.10	7,166.10	6,046.10	5,356.10	5,796.10	5,796.10	0.54
10	Keratin-associated protein 6-5 OS-Mus musculus GN-Krtap6-5 PE-2 SV-1	KRTAP	KR66_MOUSE [1+]	Krtap6-5	5,206.10	4,436.10	5,546.10	4,656.10	4,106.10	4,756.10	4,756.10	0.89
11	2310051N02Rk protein OS-Mus musculus GN-Dntrlk PE-1 SV-1	Actin	ACTC_MOUSE [1]	Actc	2,566.10	4,136.10	2,596.10	2,596.10	2,596.10	2,596.10	2,596.10	0.71
12	<b>Cluster of Actin, alpha cardiac muscle 1 OS-Mus musculus GN-Actc1 PE-1 SV-1 (ACTC_MOUSE)</b>	Actin	<b>ACTC_MOUSE [4]</b>	<b>Actc Cluster</b>	2,726.10	3,996.10	2,906.10	8,166.10	8,306.10	9,546.10	9,546.10	0.71
12.1	Actin, alpha cardiac muscle 1 OS-Mus musculus GN-Actc1 PE-1 SV-1	Actin	ACTC_MOUSE [1+]	Actc	1,926.10	2,556.10	2,176.10	8,816.10	5,376.10	6,136.10	6,136.10	2.61
12.2	Actin, cytoplasmic 1 OS-Mus musculus GN-Actb PE-1 SV-1	Actin	ACTB_MOUSE	Actb	3,126.10	4,706.10	3,266.10	9,376.10	9,796.10	1,136.10	1,136.10	2.75
12.3	Actin, cytoplasmic 2 OS-Mus musculus GN-Acta2 PE-1 SV-1	Actin	ACTA2_MOUSE	Acta2	3,126.10	4,706.10	3,266.10	9,376.10	9,796.10	1,136.10	1,136.10	2.75
13	<b>Cluster of Junction plakoglobin OS-Mus musculus GN-Jup PE-1 SV-1 (PLAK_MOUSE)</b>	Cell junctional proteins	<b>PLAK_MOUSE [2]</b>	<b>Jup Cluster</b>	1,856.10	3,106.10	2,426.10	1,296.10	2,376.10	1,496.10	1,496.10	0.70
13.1	Junction plakoglobin OS-Mus musculus GN-Jup PE-1 SV-1	Cell junctional proteins	PLAK_MOUSE	Jup	1,856.10	3,106.10	2,426.10	2,396.10	2,376.10	2,666.10	2,666.10	1.01
13.2	Catenin beta-3 OS-Mus musculus GN-Cnnb3 PE-1 SV-1	Cell junctional proteins	CNNB3_MOUSE	Cnnb3	0	0	0	0	0	0	0	>0.00
14	<b>Cluster of MCG128973 OS-Mus musculus GN-Gm128973 PE-1 SV-1 (Q9D676_MOUSE)</b>	KRTAP	<b>Q9D676_MOUSE [5]</b>	<b>Krtap2310051N02Rk Cluster</b>	3,526.10	2,656.10	3,676.10	4,196.10	3,626.10	2,656.10	2,656.10	1.08
14.1	MCG128973 OS-Mus musculus GN-Gm128973 PE-1 SV-1	KRTAP	Q9D676_MOUSE	Krtap2310051N02Rk	3,526.10	2,656.10	3,676.10	4,196.10	3,626.10	2,656.10	2,656.10	1.08
14.2	Predicted gene 5965 OS-Mus musculus GN-Gm5965 PE-2 SV-1	KRTAP	DZ727A_MOUSE	Krtap5965	3,306.10	2,486.10	3,886.10	3,326.10	3,496.10	2,616.10	2,616.10	0.99
15	Keratin-associated protein 13-1 OS-Mus musculus GN-Krtap13-1 PE-1 SV-1	KRTAP	G9K931_MOUSE	Krtap13-1	2,566.10	3,916.10	2,596.10	2,596.10	3,436.10	3,626.10	3,626.10	0.99
16	Elongation factor 2 OS-Mus musculus GN-Ef2 PE-1 SV-2	Translation factors	EF2_MOUSE	Ef2	1,126.10	1,366.10	1,226.10	2,096.10	2,436.10	2,226.10	2,226.10	1.06
17	Elongation factor 1-alpha OS-Mus musculus GN-Ef1a PE-1 SV-2	Translation factors	EF1A_MOUSE	Ef1a	3,566.10	4,416.10	4,146.10	8,786.10	8,266.10	7,346.10	7,346.10	1.03
18	Selenium-binding protein 1 OS-Mus musculus GN-Selebp1 PE-1 SV-2	Other proteins	SELEBP1_MOUSE	Selebp1	1,126.10	1,606.10	1,246.10	2,396.10	3,776.10	3,336.10	3,336.10	1.25
19	Serum albumin OS-Mus musculus GN-Salb PE-1 SV-2	Other proteins	SALB_MOUSE	Salb	5,246.10	4,926.10	6,016.10	1,006.10	1,406.10	1,406.10	1,406.10	2.42
20	<b>Cluster of Histone H2B type 1-8 OS-Mus musculus GN-Hist1h2b PE-1 SV-3 (H2B1_MOUSE)</b>	Histones	<b>H2B1_MOUSE [10]</b>	<b>Hist1h2b Cluster</b>	8,146.10	1,146.10	8,246.10	8,826.10	9,056.10	9,326.10	9,326.10	0.94
20.1	Histone H2B type 1-8 OS-Mus musculus GN-Hist1h2b PE-1 SV-3	Histones	H2B1_MOUSE (3+)	Hist1h2b	8,146.10	1,146.10	8,246.10	8,826.10	9,056.10	9,326.10	9,326.10	0.94
20.2	Histone H2B type 1-7/G OS-Mus musculus GN-Hist1h2b PE-1 SV-3	Histones	H2B1C_MOUSE [5+]	Hist1h2bc	8,146.10	1,146.10	8,246.10	8,826.10	9,056.10	9,326.10	9,326.10	0.94
21	Keratin-associated protein 1-1 OS-Mus musculus GN-Krtap1-1 PE-1 SV-2	Keratin	KRT1_MOUSE	Krt1	1,226.10	1,106.10	1,576.10	1,516.10	7,536.10	8,026.10	8,026.10	1.04
22	Keratin, type I cytoskeletal 10 OS-Mus musculus GN-Krt10 PE-1 SV-1	Keratin	AZ513_MOUSE (4+)	Krt10	6,146.10	5,946.10	5,356.10	5,586.10	2,396.10	8,466.10	8,466.10	0.64
23	RIKEN cDNA 2310034C09 OS-Mus musculus GN-2310034C09Rk PE-1 SV-1	KRTAP	Q9D74E_MOUSE	Krtap2310034C09Rk	1,866.10	1,856.10	2,036.10	1,596.10	1,986.10	1,366.10	1,366.10	0.95
25	Keratin-associated protein 13 OS-Mus musculus GN-Krtap13 PE-2 SV-1	KRTAP	OB879_MOUSE	Krtap13	3,456.10	2,726.10	3,536.10	3,306.10	3,646.10	2,306.10	2,306.10	0.95
26	Lysosome glycoprotein OS-Mus musculus GN-Lgpb PE-2 SV-1	Nail-associated proteins	LGPB_MOUSE	Lgpb	4,496.10	1,626.10	6,416.10	7,006.10	7,186.10	7,186.10	7,186.10	0.91
27	14-3-3 protein sigma OS-Mus musculus GN-Sfn PE-1 SV-2	Other proteins	SFN_MOUSE	Sfn	1,726.10	3,646.10	2,256.10	4,966.10	5,316.10	6,186.10	6,186.10	1.01
28	Histone H4 OS-Mus musculus GN-Hist1h4 PE-1 SV-2	Histones	H4_MOUSE	Hist1h4a	1,546.10	1,966.10	1,756.10	1,846.10	1,806.10	1,856.10	1,856.10	1.05
29	<b>Cluster of Tubulin alpha 1C chain OS-Mus musculus GN-Tubalc1 PE-1 SV-1 (TBA1C_MOUSE)</b>	Filaments	<b>TBA1C_MOUSE [3]</b>	<b>Tubalc1 Cluster</b>	5,776.10	9,776.10	7,716.10	9,736.10	1,026.10	1,066.10	1,066.10	1.23
29.1	Tubulin alpha 1C chain OS-Mus musculus GN-Tubalc1 PE-1 SV-1	Filaments	TBA1C_MOUSE [3]	Tubalc1	5,776.10	9,776.10	7,716.10	9,736.10	1,026.10	1,066.10	1,066.10	1.23
29.2	Tubulin alpha chain (Fragment) OS-Mus musculus GN-Tubalpha PE-1 SV-1	Fragments	A0A0A0A0AS_MOUSE [1+]	Tubalpha	5,176.10	8,866.10	6,986.10	7,226.10	9,006.10	9,356.10	9,356.10	1.22
30	Galactin OS-Mus musculus GN-Lgal7 PE-1 SV-1	Other proteins	LGA7_MOUSE	Lgal7	5,056.10	7,166.10	6,686.10	7,946.10	8,316.10	1,166.10	1,166.10	1.49
31	Pyruvate kinase PRM OS-Mus musculus GN-Pfkfb1 PE-1 SV-4	Enzymes	PFKFB1_MOUSE	Pfkfb1	2,896.10	4,146.10	4,146.10	1,536.10	1,246.10	1,086.10	1,086.10	

#	Identified proteins	Protein group	Accession number	Symbol	WT1	WT2	WT3	KO1	KO2	KO3	Ratio KO/WT
110	Keratin, Type I cytoskeletal 24 OS-Mus musculus GN-Krt24 PE=1 Sv-2	Keratins	K24_MOUSE	Krt24	4,905,408	2,046,088	5,205,408	3,756,088	2,076,488	1,646,088	0.651
111	Phosphotyrosine kinase 1 OS-Mus musculus GN-HPK1 PE=1 Sv-4	Enzymes	PKD3_MOUSE	Hpk1	3,378,720	3,568,480	3,756,480	3,842,480	4,788,480	2,244,480	0.583
112	RIKEN cDNA 23107919G9 gene OS-Mus musculus GN-23107919G9R1K9 PE=1 Sv-1	Keratin	KRC24_MOUSE	Krtap23107919G9	2,848,408	1,818,408	2,588,408	1,688,408	1,698,408	3,328,408	0.91
114	Annexin A1 OS-Mus musculus GN-Anx1 PE=1 Sv-2	Other proteins	ANXA1_MOUSE	Anxa1	1,611,407	2,176,407	2,181,407	2,441,407	2,628,407	3,576,407	1.61
115	40S ribosomal protein S16 OS-Mus musculus GN-Rps16 PE=1 Sv-4	Ribosome	R16_MOUSE	Rps16	3,196,407	4,136,407	4,374,407	3,966,407	7,985,407	6,736,407	1.61
116	60S ribosomal protein L16 OS-Mus musculus GN-Rpl16 PE=1 Sv-2	Ribosome	R16L_MOUSE	Rpl16	1,682,407	2,622,407	2,632,407	2,632,407	2,632,407	2,632,407	1.18
117	78 kDa glucocorticoid-induced protein OS-Mus musculus GN-Hspa6 PE=1 Sv-1	Heat shock proteins	GRP78_MOUSE	Hspa6	911,400	1,511,400	1,111,400	1,481,400	4,356,400	4,846,400	0.96
118	Cluster of Predicted gene 11368 OS-Mus musculus GN-Gm11368 PE=1 Sv-1 (A2AMM2_MOUSE)	KRTAP	A2AMM2_MOUSE [2]	Krtap Gm11368 Cl	2,766,408	1,126,408	1,866,408	1,908,408	2,288,408	1,288,408	0.95
118.1	Predicted gene 11368 OS-Mus musculus GN-Gm11368 PE=1 Sv-1	KRTAP	A2AMM2_MOUSE [2]	Krtap Gm11368 Cl	2,766,408	1,126,408	1,866,408	1,908,408	2,288,408	1,288,408	0.95
118.2	Keratin-associated protein 9-1 OS-Mus musculus GN-Krtap9-1 PE=2 Sv-1	KRTAP	Q54526_MOUSE	Krtap9-1	2,222,408	8,836,407	1,332,408	1,522,408	1,838,408	1,012,408	0.93
119	Protein-glutamine gamma-glutamyltransferase 1 OS-Mus musculus GN-Tgm1 PE=1 Sv-1	Enzymes	A0ADR4293_MOUSE (+1)	Tgm1	1,411,407	2,136,407	1,301,407	1,181,407	1,076,407	1,761,407	0.82
120	Eukaryotic translation initiation factor 3 subunit A OS-Mus musculus GN-EIf3A PE=1 Sv-1	Translation factors	EIf3A_MOUSE	EIf3a	262,400	317,700	234,900	1,121,400	781,300	851,700	3.38
121	Cluster of Non-predicted gene 20390 OS-Mus musculus GN-Gm20390 PE=3 Sv-4 (E9PZ7_MOUSE)	Enzymes	A2AMM2_MOUSE [2]	NDK Gm20390 Cl	1,806,407	2,938,407	2,028,407	6,351,407	6,351,407	7,928,407	3.40
121.1	Nucleoside diphosphate kinase OS-Mus musculus GN-Gm20390 PE=3 Sv-4	Enzymes	E9PZ7_MOUSE	NDK Gm20390 Cl	1,806,407	2,938,407	2,028,407	6,351,407	6,351,407	7,928,407	3.40
121.2	Nucleoside diphosphate kinase OS-Mus musculus GN-Nme1 PE=1 Sv-1	Enzymes	NDKA_MOUSE	Nme1	2,056,407	2,511,407	2,371,407	5,351,407	6,331,407	8,577,407	2.92
122	Cluster of ADP/ATP translocase 2 OS-Mus musculus GN-Nme1 PE=1 Sv-1 (ADT2_MOUSE)	Enzymes	ADT2_MOUSE [2]	Slc25a5 Cluster	1,687,407	2,241,407	2,051,407	2,981,407	2,891,407	2,581,407	1.42
122.1	ADP/ATP translocase 2 OS-Mus musculus GN-Slc25a5 PE=1 Sv-1	Enzymes	ADT2_MOUSE [2]	Slc25a5 Cluster	1,687,407	2,241,407	2,051,407	2,981,407	2,891,407	2,581,407	1.42
122.2	ADP/ATP translocase 1 OS-Mus musculus GN-Slc25a4 PE=1 Sv-4	Enzymes	ADT1_MOUSE	Slc25a4	1,385,407	1,876,407	1,631,407	2,451,407	2,571,407	1,941,407	1.43
123	60S acidic ribosomal protein P2 OS-Mus musculus GN-Rplp2 PE=1 Sv-3	Ribosome	Rplp2_MOUSE	Rplp2	9,251,407	1,328,407	7,361,407	1,458,407	1,521,407	1,811,407	1.60
124	Cluster of ADP-ribosylation factor 1 OS-Mus musculus GN-Arf1 PE=1 Sv-2 (ARF1_MOUSE)	Other proteins	ARF1_MOUSE [3]	Arf1 Cluster	1,631,407	2,941,407	1,831,407	4,581,407	6,151,407	5,071,407	2.47
124.1	ADP-ribosylation factor 1 OS-Mus musculus GN-Arf1 PE=1 Sv-2	Other proteins	ARF1_MOUSE (+1)	Arf1 Cluster	1,631,407	2,941,407	1,831,407	4,581,407	6,151,407	5,071,407	2.47
124.2	ADP-ribosylation factor 4 OS-Mus musculus GN-Arf4 PE=1 Sv-1	Other proteins	ARF4_MOUSE	Arf4	1,221,407	2,681,407	1,631,407	3,801,407	5,441,407	4,751,407	2.53
125	Eukaryotic translation initiation factor 5A-1 OS-Mus musculus GN-EIf5A PE=1 Sv-2	Translation factors	EIf5A_MOUSE	EIf5a	1,081,408	1,536,408	1,431,408	1,461,408	2,161,408	2,371,408	1.48
126	Tyrosophosphatase 1 OS-Mus musculus GN-PTP1 PE=1 Sv-4	Enzymes	TP5_MOUSE	TP51	995,200	2,031,400	1,011,400	1,361,400	4,021,400	3,771,400	3.03
128	Wiscott Aldrich syndrome protein OS-Mus musculus GN-WAS PE=1 Sv-2	Enzymes	OMPA_MOUSE	Was	1,201,407	2,891,407	1,721,407	4,331,407	4,721,407	4,721,407	1.07
129	Transmembrane protease serine OS-Mus musculus GN-Tmprs11c PE=1 Sv-1	Enzymes	A0ADG2177_MOUSE (+1)	Tmprs11c	2,666,407	3,401,407	2,981,407	1,971,407	2,451,407	2,861,407	0.80
130	60S ribosomal protein L23 OS-Mus musculus GN-Rpl23 PE=1 Sv-1	Ribosome	R23_MOUSE	Rpl23	3,521,407	4,581,407	3,461,407	5,791,407	7,641,407	8,711,407	1.67
131	60S ribosomal protein L18 OS-Mus musculus GN-Rpl18 PE=1 Sv-3	Ribosome	R18_MOUSE	Rpl18	6,501,407	5,401,407	5,651,407	6,451,407	6,551,407	6,051,407	0.92
132	Prolyl endopeptidase OS-Mus musculus GN-Prpp PE=1 Sv-1	Enzymes	PRKE_MOUSE	Prpp	149,700	80,900	373,500	1,111,400	2,211,400	1,561,400	8.09
133	Peroleptin-1 OS-Mus musculus GN-Prdx1 PE=1 Sv-1	Other proteins	PRDX1_MOUSE	Prdx1	2,191,407	4,511,407	3,271,407	7,111,407	7,211,407	8,611,407	2.36
134	60S ribosomal protein L12 OS-Mus musculus GN-Rpl12 PE=1 Sv-2	Ribosome	R12_MOUSE	Rpl12	4,741,407	3,571,407	4,691,407	4,931,407	1,021,407	1,091,407	2.34
135	Keratin-associated protein 2 OS-Mus musculus GN-Krtap2 PE=1 Sv-1	Other proteins	A0ADR79175_MOUSE (+1)	Krtap2	2,751,409	1,451,409	2,791,409	4,041,409	3,911,409	1,371,409	1.04
136	Fructose-bisphosphate aldolase A OS-Mus musculus GN-Aldoa PE=1 Sv-2	Enzymes	ALDOA_MOUSE	Aldoa	9,917,000	5,374,000	8,417,000	3,841,400	3,951,400	2,271,400	4.05
137	Crystallin beta-gamma domain-containing 1 OS-Mus musculus GN-Crybg1 PE=1 Sv-1	Other proteins	A0ADG3252_MOUSE (+1)	Crybg1	3,723,000	9,849,000	4,734,000	5,572,000	45,272,000	65,204,000	1.49
138	Profilin-1 OS-Mus musculus GN-Pfn1 PE=1 Sv-2	Other proteins	PFN1_MOUSE	Pfn1	2,751,007	2,801,407	1,961,407	5,341,407	5,401,407	4,441,407	2.09
139	Alpha globin 1 OS-Mus musculus GN-Hba1 PE=1 Sv-1	Other proteins	GYG1_MOUSE	Hba1	1,011,408	1,371,408	1,451,408	1,371,408	2,331,408	2,131,408	1.04
140	60S ribosomal protein S19 OS-Mus musculus GN-Rps19 PE=1 Sv-3	Ribosome	RS19_MOUSE	Rps19	1,901,407	2,091,407	2,071,407	4,471,407	4,341,407	3,351,407	2.01
141	MCG120169 OS-Mus musculus GN-231005C090R1K PE=1 Sv-1	Other proteins	G5823_MOUSE	Clorf68/LCE	1,121,408	1,011,408	1,071,408	1,371,408	1,461,408	8,051,408	1.13
142	Predicted gene 12020 OS-Mus musculus GN-Gm12020 PE=1 Sv-1	Ribosome	RFPV7_MOUSE (+2)	Rpl8	4,431,407	4,991,407	5,491,407	9,061,407	8,821,407	7,531,407	1.77
143	60S ribosomal protein S18 OS-Mus musculus GN-Rps18 PE=1 Sv-3	Ribosome	R18_MOUSE	Rpl18	1,701,407	1,901,407	1,541,407	4,491,407	5,451,407	3,941,407	1.94
144	40S ribosomal protein S6 OS-Mus musculus GN-Rps6 PE=1 Sv-1	Ribosome	RSE_MOUSE	Rps6	3,001,407	5,691,407	2,831,407	6,551,407	7,071,407	8,761,407	1.91
145	40S ribosomal protein S5 (Fragment) OS-Mus musculus GN-Rps5 PE=1 Sv-1	Ribosome	D3YMM6_MOUSE (+2)	Rps5	5,921,407	1,771,408	8,161,408	1,581,408	2,481,408	2,101,408	1.97
146	Calmodulin-4 OS-Mus musculus GN-Calm4 PE=1 Sv-2	Other proteins	CALM4_MOUSE	Calm4	4,571,407	5,211,407	3,731,407	5,341,407	3,771,407	9,181,407	1.35
147	Cofilin-1 OS-Mus musculus GN-Cfl1 PE=1 Sv-3	Other proteins	COF1_MOUSE	Cfl1	3,951,407	4,851,407	4,691,407	5,711,407	5,141,407	3,761,407	1.21
148	Rab GDP dissociation inhibitor beta OS-Mus musculus GN-Gdi2 PE=1 Sv-1	Other proteins	sp Q61598 GDI2_MOUSE	Gdi2	9,931,000	2,541,407	1,091,407	7,271,407	3,521,407	3,041,407	2.99
149	Dstn OS-Mus musculus GN-Dstn PE=1 Sv-1	Other proteins	DEST_MOUSE	Dstn	1,881,407	3,721,407	1,071,407	6,661,407	7,221,407	8,161,407	2.19
150	Gad65 OS-Mus musculus GN-Gad65 PE=1 Sv-1	Other proteins	GAD65_MOUSE	Gad65	2,011,407	4,071,407	2,351,407	3,921,407	4,101,407	3,761,407	2.47
151	60S ribosomal protein L30 OS-Mus musculus GN-Rpl30 PE=1 Sv-1	Ribosome	RL30_MOUSE	Rpl30	4,201,407	7,901,407	4,311,407	8,411,407	9,091,407	1,111,407	1.74
152	Ubiquitin-40S ribosomal protein S27a OS-Mus musculus GN-Rps27a PE=1 Sv-2	Ribosome	RS27A_MOUSE	Rps27a	5,281,407	8,291,407	4,271,407	9,101,407	6,471,407	3,171,407	1.37
153	Insulin 3B of Desmodulin 3 OS-Mus musculus GN-Dsc3	Cell junctional proteins	sp HS88522 DSC3_MOUSE (+1)	Dsc3	648,700	7,536,700	1,611,400	1,271,400	1,241,400	1,001,400	1.17
154	Homophilin OS-Mus musculus GN-Hom PE=1 Sv-1	Other proteins	HMN1_MOUSE	Hom	3,081,407	4,841,407	2,931,407	3,841,407	3,201,407	9,951,407	2.89
155	Heat shock 70 kDa protein 1A OS-Mus musculus GN-Hspa1A PE=1 Sv-2	Heat shock proteins	HSPA1A_MOUSE (+1)	Hspa1a	1,511,407	1,791,407	1,561,407	3,341,407	3,371,407	3,471,407	2.09
156	60S ribosomal protein L8 OS-Mus musculus GN-Rpl8 PE=1 Sv-2	Ribosome	RL8_MOUSE	Rpl8	1,741,407	1,681,407	2,771,407	1,121,407	3,181,407	4,021,407	1.98
157	60S acidic ribosomal protein P1 OS-Mus musculus GN-Rplp1 PE=1 Sv-1	Ribosome	R1P1_MOUSE	Rplp1	1,411,408	3,381,408	2,051,408	3,121,408	3,641,408	4,021,408	1.58
158	60S ribosomal protein L19 OS-Mus musculus GN-Rpl19 PE=1 Sv-1	Ribosome	RL19_MOUSE (+1)	Rpl19	3,411,407	3,431,407	1,651,407	8,421,407	1,201,407	1,011,407	1.47
159	Predicted gene 13003 OS-Mus musculus GN-Gm13003 PE=1 Sv-1	Ribosome	E9P21_MOUSE (+1)	Rpl11	2,931,407	2,131,407	3,131,407	4,871,407	5,251,407	5,071,407	1.85
160	40S ribosomal protein S20 OS-Mus musculus GN-Rps20 PE=1 Sv-1	Ribosome	RS20_MOUSE	Rps20	8,441,407	8,741,407	7,151,407	1,321,407	1,271,407	1,221,407	1.75
161	40S ribosomal protein S12 OS-Mus musculus GN-Rps12 PE=1 Sv-1	Ribosome	F7AHE_MOUSE (+1)	Rpl2	1,091,407	1,271,408	8,721,408	1,901,408	1,861,408	1,791,408	2.02
162	60S ribosomal protein L17 OS-Mus musculus GN-Rpl17 PE=1 Sv-1	Ribosome	FL021_MOUSE (+1)	Rpl17	6,291,407	3,091,407	6,081,407	4,811,407	5,811,407	3,761,407	1.47
163	Keratin-associated protein 8-1 OS-Mus musculus GN-Krtap8-1 PE=2 Sv-1	KRTAP	KRA81_MOUSE	Krtap8-1	1,301,409	2,581,409	1,261,409	1,701,409	1,611,409	1,831,409	1.00
164	14-3-3 protein epsilon OS-Mus musculus GN-Wyhae PE=1 Sv-1	Other proteins	WYHA_MOUSE	Wyhae	7,151,407	1,091,408	8,631,408	1,561,408	1,581,408	1,581,408	1.76
165	Serine-RNA ligase, cytoplasmic OS-Mus musculus GN-Sars PE=1 Sv-1	Enzymes	Q8K483_MOUSE (+1)	Sars	2,921,000	1,311,400	3,651,000	3,151,400	1,811,400	2,071,400	2.65
166	40S ribosomal protein S28 OS-Mus musculus GN-Rps28 PE=1 Sv-1	Ribosome	RS28_MOUSE	Rps28	4,611,407	4,711,407	4,811,407	4,911,407	7,811,407	7,011,407	1.33
167	60S ribosomal protein L18a (Fragment) OS-Mus musculus GN-Rpl18a PE=1 Sv-1	Ribosome	A0A1D5R8M5_MOUSE (+1)	Rpl18a	2,391,407	1,401,407	2,221,407	4,541,407	3,711,407	6,111,407	1.81
168	40S ribosomal protein S25 OS-Mus musculus GN-Rps25 PE=1 Sv-1	Ribosome	A0A1110A8_MOUSE (+1)	Rps25	4,011,407	5,101,407	4,851,407	9,701,407	9,041,407	3,971,407	2.74
169	Eukaryotic translation initiation factor 4 gamma 1 OS-Mus musculus GN-EIf4G1 PE=1 Sv-1	Translation factors	A0AD9YV55_MOUSE (+5)	EIf4G1	2,971,500	6,941,500	1,841,500	4,961,500	1,141,500	1,321,500	2.84
170	Eukaryotic translation initiation factor 3 subunit gamma OS-Mus musculus GN-EIf3G PE=1 Sv-1	Translation factors	EIf3G_MOUSE	EIf3g	3,851,407	4,821,407	3,681,407	5,181,407	4,441,407	3,441,407	1.04
171	Eukaryotic translation initiation factor 3 subunit M OS-Mus musculus GN-EIf3M PE=1 Sv-1	Translation factors	EIf3M_MOUSE	EIf3m	1,771,407	2,831,407	1,881,407	4,351,407	5,211,407	3,911,407	2.19
172	60S ribosomal protein L14 OS-Mus musculus GN-Rpl14 PE=1 Sv-1	Ribosome	RL14_MOUSE	Rpl14	1,801,407	4,621,407	2,151,407	4,001,407</			

#	Identified proteins	Protein group	Accession number	Symbol	WT1	WT2	WT3	KO1	KO2	KO3	Ratio KO/WT
265	T-complex protein 1 subunit epsilon OS=Mus musculus GN-Ctcs Pe1 Sv=1	Chaperonin	TFPE_MOUSE	Ctcs	801520	1654700	1144700	6429300	7487700	8088100	79
266	Protein S100-A4 OS=Mus musculus GN-S100A4 Pe1 Sv=1	Chaperonin	S100A4_MOUSE	S100a4	9,195,077	1,022,108	8,796,407	7,174,402	8,448,407	0,77	
267	Isomorph 3 of Probable hydrolase PNPD OS=Mus musculus GN-Pnkld	Enzymes	sp G6PZ3-3 PNPD_MOUSE (+2)	Pnkld	6,32e+07	2,98e+07	6,47e+07	5,59e+07	6,21e+07	2,73e+07	0,92
268	Dehydrogenase/reductase SDR family member 1 OS=Mus musculus GN-Dhrs1 Pe1 Sv=1	Enzymes	DHR1_MOUSE	Dhrs1	6054000	9938100	4620200	2,03e+07	1,89e+07	3,14e+07	3,43
269	T-complex protein 1 subunit gamma OS=Mus musculus GN-Ctcs Pe1 Sv=1	Chaperonin	ESG13_MOUSE (+1)	Ctcs3	0	0	0	1,40e+07	2,13e+07	1,41e+07	105,34
270	Creatine kinase B-type OS=Mus musculus GN-Ckpb Pe1 Sv=1	Cy	KRIB_MOUSE	Ckb	495,110	276,800	537,300	1,38e+07	1,45e+07	1,45e+07	3,42
271	Zinc finger protein 651 (Fragment) OS=Mus musculus GN-Zfp651 Pe1 Sv=1	Other proteins	A01118T6_MOUSE	Zfp651	1,14e+07	4,43e+06	883,300	5,15e+06	380,250	47,900	0,56
272	Rho GDP-dissociation inhibitor 1 OS=Mus musculus GN-Arhdga Pe1 Sv=1	Other proteins	GDIR1_MOUSE	Arhdga	388,720	1,42e+07	859,810	1,18e+07	1,36e+07	1,99e+07	1,70
273	Isomorph 1 of Protein transport protein 12 OS=Mus musculus GN-Vtdc1	Other proteins	sp Q0283-1 H2AY_MOUSE (+1)	Atprc1	46,076,000	11,871,000	23,324,000	26,572,000	12,175,000	12,175,000	0,55
274	Eukaryotic translation initiation factor 3 subunit 1 OS=Mus musculus GN-Eif3b Pe1 Sv=1	Translation factors	EIF3_MOUSE	Eif3b	306,420	349,340	358,440	1,08e+07	9,193,000	8,892,000	2,81
275	Protein FAM83H OS=Mus musculus GN-Fam83h Pe1 Sv=1	Other proteins	FAM8H_MOUSE	Fam83h	3,174,500	1,15e+07	4,526,500	4,045,000	625,290	74,020	0,92
276	Histone H1.0 OS=Mus musculus GN-H10 Pe2 Sv=2	Histones	H10_MOUSE	H10	2,01e+07	2,41e+07	2,88e+07	3,03e+07	2,64e+07	2,94e+07	1,18
277	Protein S100-A11 OS=Mus musculus GN-S100A11 Pe1 Sv=1	Other proteins	S100A11_MOUSE	S100a11	5,19e+07	8,93e+07	5,85e+07	4,58e+07	4,47e+07	1,08e+08	1,11
278	Keratin-associated protein 22-2 OS=Mus musculus GN-Krtap22-2 Pe4 Sv=1	KRTAP	J30N6_MOUSE	Krtap22-2	1,67e+08	1,46e+08	1,28e+08	1,28e+08	1,36e+07	1,23e+08	0,63
279	14-3-3 protein gamma OS=Mus musculus GN-Ywhag Pe1 Sv=2	Other proteins	I43G_MOUSE	Ywhag	6,89e+07	1,08e+08	8,32e+07	1,44e+08	1,47e+08	1,60e+08	1,75
280	Thioredoxin domain-containing protein 17 OS=Mus musculus GN-Tndc17 Pe1 Sv=1	Other proteins	TXD17_MOUSE	Tndc17	1,39e+07	1,89e+07	1,06e+07	7,97e+07	4,84e+07	3,80e+07	2,85
281	60S ribosomal protein L22 OS=Mus musculus GN-Rpl22 Pe2 Sv=2	Ribosome	60S_L22_MOUSE	Rpl22	1,38e+07	7,80e+07	6,53e+07	6,83e+07	4,33e+07	1,32e+08	1,13
282	Proteinoglycan activator inhibitor 1 RNA-binding protein OS=Mus musculus GN-Serip1 Pe1 Sv=1	Other proteins	A0DNM5Y2_MOUSE (+4)	Serip1	5,887,200	831,080	689,450	1,12e+07	1,11e+07	1,19e+07	1,49
283	Tropomyosin alpha-3 chain OS=Mus musculus GN-Tpm3 Pe1 Sv=1	Filaments	Z23E6_MOUSE (+2)	Tpm3	28,998,000	0	3,179,500	74,020,000	1,10e+07	1,06e+07	4,79
284	Eukaryotic translation initiation factor 3 subunit D OS=Mus musculus GN-Eif3d Pe1 Sv=1	Translation factors	EIF3_MOUSE	Eif3d	2,267,500	6,755,000	4,268,600	694,290	1,27e+07	877,020	2,14
285	Isomorph 1 of Core histone H2a.1 OS=Mus musculus GN-H2afv	Histones	sp Q90Z08-1 H2AY_MOUSE (+1)	H2afv	97,900,000	1,89e+07	1,03e+07	1,32e+07	1,68e+07	1,71e+07	1,00
286	Isomorph 3 of Programmed cell death 6-interacting protein OS=Mus musculus GN-Pdcd6ip	Other proteins	sp Q9VU78-1 PDC6I_MOUSE (+1)	Pdcd6ip	265,300	367,770	316,500	257,300	571,800	572,900	1,48
287	Actin-related protein 3 OS=Mus musculus GN-Acr3 Pe1 Sv=3	Filaments	ARP3_MOUSE	Actr3	3,013,200	431,880	619,800	2,07e+07	2,19e+07	2,55e+07	5,00
288	Protein S100-A4 (Fragment) OS=Mus musculus GN-S100A4 Pe4 Sv=1	Other proteins	A0AG02G2_MOUSE (+1)	S100a4	3,11e+07	6,64e+07	2,42e+07	4,88e+07	3,75e+07	6,39e+07	1,23
289	T-complex protein 1 subunit epsilon OS=Mus musculus GN-Ctcs Pe4 Sv=1	Chaperonin	ESG13_MOUSE (+1)	Ctcs3	1,310,000	966,900	877,800	623,100	974,700	974,700	1,23
290	60S ribosomal protein L38 OS=Mus musculus GN-Rpl38 Pe1 Sv=3	Ribosome	RPL38_MOUSE	Rpl38	1,62e+07	4,70e+07	1,11e+07	9,30e+07	4,73e+07	5,43e+07	1,29
291	Serpin B11 OS=Mus musculus GN-Serpinb11 Pe1 Sv=1	Other proteins	SRB11_MOUSE	Serpinb11	3,309,500	9,561,800	3,942,700	354,810	721,340	1,25e+07	1,89
292	Protein Ribonuclease H1 OS=Mus musculus GN-Rhn1 Pe1 Sv=1	Other proteins	RYH1_MOUSE (+1)	Rhn1	49,630	119,630	38,570	4,35e+07	4,35e+07	4,35e+07	27,37
293	Endoplasmic reticulum protein 4 OS=Mus musculus GN-Erpd1 Pe1 Sv=2	Other proteins	ENPL_MOUSE	Erpd1	217,620	155,900	290,450	1,27e+07	9,648,000	5,808,100	4,24
294	Translationally-controlled tumor protein OS=Mus musculus GN-Tcpt1 Pe1 Sv=1	Other proteins	TCTP_MOUSE	Tcpt1	2,22e+07	3,35e+07	3,08e+07	3,49e+07	2,44e+07	6,70e+07	1,46
295	60S ribosomal protein L35 OS=Mus musculus GN-Rpl35 Pe1 Sv=1	Ribosome	RPL35_MOUSE	Rpl35	4,82e+07	1,07e+07	7,97e+07	1,03e+08	9,87e+07	2,71e+07	2,15
296	Keratin-associated protein 2-5 OS=Mus musculus GN-Krtap2-5 Pe1 Sv=1	Other proteins	KRTAP2-5_MOUSE	Krtap2-5	3,22e+07	6,75e+07	4,71e+07	1,67e+07	6,61e+07	5,65e+07	1,22
297	Eukaryotic translation initiation factor 5 OS=Mus musculus GN-Eif5 Pe1 Sv=1	Translation factors	EIF5_MOUSE	Eif5	49,400	254,960	60,590	2,40e+07	2,845,500	50,940	2,82
298	Non-canonical poly(A) RNA polymerase PAPD5 OS=Mus musculus GN-Papd5 Pe1 Sv=1	Enzymes	E0QTU_MOUSE (+3)	Papd5	93,520,000	1,59e+07	290,200	702,400	368,290	454,800	0,54
299	Fatty acyl synthase OS=Mus musculus GN-Fasn Pe1 Sv=1	Enzymes	AD04J1R1_MOUSE (+1)	Fasn	66,220	62,590	59,300	1,72e+08	1,602,000	49,660	4,52
300	Armenin A7 OS=Mus musculus GN-Arn7 Pe1 Sv=1	Other proteins	ARN7_MOUSE	Arn7	40,820	46,580	749,400	4,02e+07	4,02e+07	680,100	1,22
301	Beta-hexosaminidase subunit beta OS=Mus musculus GN-Hexb Pe1 Sv=2	Enzymes	HEXB_MOUSE	Hexb	363,800	497,400	404,100	507,600	627,500	661,910	1,42
302	Lamin-B1 OS=Mus musculus GN-Lmn1b Pe1 Sv=3	Other proteins	LMBN1_MOUSE	Lmn1b	4,853,800	1,21e+07	4,648,800	8,200,000	1,22e+07	1,21e+07	1,51
303	4-05 ribosomal protein S21 OS=Mus musculus GN-Rps21 Pe1 Sv=1	Ribosome	RS21_MOUSE	Rps21	2,37e+07	959,940	1,40e+07	1,50e+07	3,02e+07	66,880	1,10
304	T-complex protein 1 subunit alpha OS=Mus musculus GN-Ctcf Pe1 Sv=3	Chaperonin	CTCF_MOUSE	Ctcf	0	0	0	773,500	647,800	422,820	16,02
305	T-complex protein 1 subunit theta OS=Mus musculus GN-Ctth Pe1 Sv=3	Chaperonin	CTTH_MOUSE	Ctth	0	0	0	594,700	617,800	72,900	>30,00
306	Serine protease inhibitor Kazal-type C OS=Mus musculus GN-Spnk6 Pe2 Sv=1	Other proteins	ISK6_MOUSE	Spnk6	4,43e+07	2,98e+07	4,45e+07	3,82e+07	4,21e+07	1,96e+07	0,84
307	Heterogeneous nuclear ribonucleoprotein K OS=Mus musculus GN-Hnrnpk Pe1 Sv=1	Other proteins	BZM1R6_MOUSE (+4)	Hnrnpk	199,600	689,200	516,100	7,27e+07	897,100	371,410	1,27
308	Deoxythiokinase-1-like OS=Mus musculus GN-Dt1 Pe1 Sv=1	Enzymes	DNTK1_MOUSE (+2)	Dt1	0	0	0	6,52e+07	4,15e+07	7,03e+07	>30,00
309	Methionine aminopeptidase 2 OS=Mus musculus GN-Metap2 Pe1 Sv=1	Enzymes	MPA2_MOUSE (+2)	Metap2	1,765,300	1,19e+07	284,700	757,900	3,76e+07	55,720	2,21
310	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit OS=Mus musculus GN-Ppp1c1 Pe1 Sv=1	Enzymes	PP1A_MOUSE (+3)	Ppp1c1	862,540	1,07e+07	7,986,300	1,13e+07	1,14e+07	1,20e+07	1,29
311	Adenylyl cyclase-associated protein 1 OS=Mus musculus GN-Acap1 Pe1 Sv=4	Other proteins	ACAP1_MOUSE (+3)	Cap1	221,800	2,13e+07	415,560	1,00e+07	1,11e+07	1,11e+07	0,87
312	Ras-related protein Rab-18 OS=Mus musculus GN-Rab18 Pe1 Sv=1	Filaments	RAB18_MOUSE	Rab18	0	0	706,400	1,36e+07	1,36e+07	1,11e+07	22,07
313	Filamin-B OS=Mus musculus GN-Flnb Pe1 Sv=3	Filaments	FLNB_MOUSE	Flnb	26,730	56,900	49,860	1,60e+07	2,845,000	4,847,100	2,03
314	Cytochrome c oxidase subunit 2 OS=Mus musculus GN-Mtco2 Pe1 Sv=1	Enzymes	CO2_MOUSE	Mtco2	1,11e+07	1,69e+07	50,900	1,71e+07	1,74e+07	2,99e+07	2,08
315	Creatine kinase A1 OS=Mus musculus GN-Ckmi1 Pe1 Sv=1	Enzymes	CKA1_MOUSE	Ckmi1	2,83e+07	2,18e+07	2,18e+07	1,28e+07	1,28e+07	1,95e+07	2,41
316	T-complex protein 1 subunit eta OS=Mus musculus GN-Ctcf Pe1 Sv=1	Chaperonin	CTCF_MOUSE	Ctcf	7,732,900	1,95e+02	251,820	6,67e+04	1,13e+07	8,021,000	1,10
317	Isomorph 2 of Sarcolemmal/endoplasmic reticulum calcium ATPase 2 OS=Mus musculus GN-At2p24	Enzymes	sp O55143-2 AT2A2_MOUSE (+1)	At2p24	0	0	0	4,26e+09	4,88e+08	5,27e+08	>30,00
318	Histone H2A.V OS=Mus musculus GN-H2afv Pe1 Sv=1	Histones	H2AV_MOUSE (+1)	H2afv	4,30e+08	4,94e+08	4,55e+08	6,84e+08	8,44e+08	3,54e+08	1,35
319	Predicted gene G358 OS=Mus musculus GN-G358 Pe1 Sv=1	Other proteins	AD067W9M_MOUSE (+4)	Fam635h	9,27e+08	2,11e+08	1,34e+08	1,71e+08	1,45e+08	1,45e+08	1,12
320	Keratin, type I cytoskeletal 28 OS=Mus musculus GN-Krt28 Pe1 Sv=1	Keratins	K12C_MOUSE	Krt28	4,86e+08	1,51e+08	4,99e+08	3,52e+08	1,60e+08	1,29e+08	0,56
321	6-phosphogluconate dehydrogenase, decarboxylating OS=Mus musculus GN-Pgd Pe1 Sv=1	Enzymes	PGD_MOUSE	Pgd	134,280	2,103,500	234,300	300,700	357,500	501,200	2,00
322	Trifunctional enzyme subunit alpha, mitochondrial OS=Mus musculus GN-Hadha Pe1 Sv=1	Enzymes	ECHA_MOUSE	Hadha	961,330	451,120	388,780	77,290	1,09e+07	49,930	2,49
323	Threonine-1 ligase, cytoplasmic OS=Mus musculus GN-Th1 Pe1 Sv=1	Other proteins	VT53_MOUSE	Th1	1,18e+07	1,93e+07	2,407,300	2,81e+07	2,407,300	2,81e+07	2,49
324	Vacuolar protein sorting-associated protein 35 OS=Mus musculus GN-Vps35 Pe1 Sv=1	Other proteins	VPS35_MOUSE	Vps35	1,075,300	259,600	0	1,64e+06	1,85e+06	1,207,000	1,29
325	Calmodulin-like protein 3 OS=Mus musculus GN-Calm3 Pe2 Sv=1	Other proteins	CALM3_MOUSE	Calm3	1,54e+07	6,95e+07	1,36e+07	4,00e+08	7,57e+07	1,27e+08	3,08
326	Aspartate aminotransferase, mitochondrial OS=Mus musculus GN-Goat2 Pe1 Sv=1	Enzymes	AALT_MOUSE	Goat2	622,180	2,151,200	1,380,400	1,25e+08	358,780	576,720	3,28
327	Alpha-crystallin OS=Mus musculus GN-Acr1 Pe1 Sv=1	Other proteins	ACTC_MOUSE	Acr1	502,200	1,93e+07	4,85e+06	1,03e+07	4,98e+06	42,710	1,00
328	Actin-related protein 2/3 complex subunit 4 OS=Mus musculus GN-Arpd4 Pe1 Sv=3	Other proteins	ARPD4_MOUSE	Arpd4	775,200	786,400	458,840	2,58e+07	2,39e+07	1,51e+07	3,21
329	Plectin OS=Mus musculus GN-Plec Pe1 Sv=1	Cell junctional proteins	IQ3V4_MOUSE (+16)	Plec	29,980	19,540	46,140	3,75e+06	20,290	17,450	6,79
330	Transgelin 2 OS=Mus musculus GN-Tagn2 Pe1 Sv=4	Other proteins	TAGL2_MOUSE	Tagn2	2,552,300	0	2,950,500	1,08e+07	1,22e+07	1,27e+07	6,73
331	T-complex protein 1 subunit beta OS=Mus musculus GN-Ctcf Pe1 Sv=1	Chaperonin	CTCF_MOUSE	Ctcf	0	0	0	984,600	946,600	946,600	>30,00
332	Ubiquitin carboxyl-terminal hydrolase isozyme L3 OS=Mus musculus GN-Uch3 Pe1 Sv=2	Enzymes	UCH3_MOUSE	Uch3	2,273,700	500,300	1,900,000	860,930	1,23e+07	6,233,000	3,03
333	Glycolipid transfer protein OS=Mus musculus GN-Gltip Pe1 Sv=3	Other proteins	G1TP_MOUSE	Gltip	1,857,700	3,265,800	1,587,300	3,263,300	5,405,800	1,01e+07	2,79
334	Cell division control protein 5 OS=Mus musculus GN-Cdc42 Pe1 Sv=2	Other proteins	CDK21_MOUSE (+4)	Cdc42	1,024,900	2,100,400	4,350,000	4,96e+06	5,14e+06	5,10e+06	1,00
335	MCC119409 OS=Mus musculus GN-Spr2b Pe2 Sv=1	Other proteins	AGT7Y_MOUSE (+1)	Spr2b	781,900	0	1,09e+07	6,21e+04	1,99e+07	20,900	1,55
336	Eukaryotic translation initiation factor 5B OS=Mus musculus GN-Eif5b Pe1 Sv=1	Translation factors	IF5B_MOUSE	Eif5b	150,800	247,540	505,650	347,400	369,630	372,000	2,43
337	Phosphate carrier protein, mitochondrial OS=Mus musculus GN-Slc25a3 Pe1 Sv=1	Other proteins	MCPC_MOUSE	Slc25a3	254,790	340,800	216,600	71,290	1,05e+07	70,890	3,11
338	N-type protein 8, brain isoform OS=Mus musculus GN-Np8 Pe1 Sv=1	Other proteins	NP8_MOUSE	Np8	3,199,100	2,191,000	2,191,000	1,96e			



#	Identified proteins	Protein group	Accession number	Symbol	WT1	WT2	WT3	KO1	KO2	KO3	Ratio KO/WT	
435	Dolichyl-diphosphooligocharide-protein glycosyltransferase subunit 1 OS-Musculus musculus GN=Rpn1 PE=1 SV=1	Enzymes	RPN1_MOUSE	Rpn1	0	0	128260	652150	171380	0	>30.00	
436	ε-couglarin dehydrogenase mitochondrial OS-Musculus musculus GN=Oglth PE=1 SV=1	Enzymes	OGLTH_MOUSE	Oglth	368480	421840	0	883817	224870	153870	3.32	
437	Isomorph 2 of Eukaryotic peptide chain release factor GTP-binding subunit EF3A OS-Musculus musculus GN=Gsp1	Translation factors	sp Q8R050-2 ERF3A_MOUSE (+1) Gsp1	sp Q8R050-2 ERF3A_MOUSE (+1) Gsp1	2005800	812770	0	658920	409920	188380	2.36	
438	ADP-ribosylation factor-like protein 8B OS-Musculus musculus GN=Arf8b PE=1 SV=1	Other proteins	A00M4SV8_MOUSE (+3)	Arf8b	6439700	0	5697100	8146700	1,146,407	0	1.61	
439	Glutathione S-transferase omega-1 OS-Musculus musculus GN=Gstomega1 PE=1 SV=2	Enzymes	GSTO1_MOUSE	Gstomega1	0	0	302900	3185400	1,354,700	0	6.04	
440	ε-factin-capping protein subunit beta (Fragmen OS-Musculus musculus GN=Cappb PE=1 SV=6	Other proteins	CAPB_MOUSE	Cappb	4546100	1,135,407	762900	1,085,430	2,475,407	1,626,407	>30.00	
441	Obj like ATPase 1 OS-Musculus musculus GN=Obj1 PE=1 SV=1	Enzymes	BI14Y9_MOUSE (+2)	Obj1	0	219390	2488800	1879400	0	468880	1.61	
442	Protein transport protein Sec23B (Fragmen OS-Musculus musculus GN=Sec23b PE=1 SV=1	Other proteins	AZANA0_MOUSE (+3)	Sec23b	904980	983850	108900	948510	1087900	1121500	1.06	
443	Spermatogenesis-associated protein 6 OS-Musculus musculus GN=Spat6 PE=1 SV=1	Other proteins	AG0A020R0_MOUSE (+7)	Spat6	1197700	1802300	837050	881830	1127600	365500	2.77	
444	MCS5400 OS-Musculus musculus GN=My12a PE=1 SV=1	Other proteins	QZWQ09_MOUSE	My12a	0	0	1,796,407	1,088,407	627160	35,100	3.10	
445	Ectonucleoside triphosphate carrier protein 1 OS-Musculus musculus GN=Ectcp1 PE=1 SV=2	Other proteins	ETA_MOUSE	Ectcp1	0	0	1174110	495550	343040	929560	15.00	
446	Proteasome subunit alpha type-5 OS-Musculus musculus GN=Psma5 PE=1 SV=1	Proteasome	Psm5_MOUSE	Psm5	0	0	2151600	491860	562950	1,578,407	12.20	
447	Eukaryotic translation initiation factor 3 subunit B OS-Musculus musculus GN=EIF3b PE=1 SV=1	Translation factors	P027_MOUSE	EIF3b	0	0	1,221,407	765,120	20,510	515010	>30.00	
448	Costamer subunit delta OS-Musculus musculus GN=Arcln1 PE=1 SV=2	Other proteins	CPO4_MOUSE	Arcln1	0	0	1304600	1642800	983900	>30.00	>30.00	
449	Actin-related protein 1A OS-Musculus musculus GN=Arpc1a PE=1 SV=1	Filaments	ARPC1A_MOUSE	Arpc1a	0	0	1710900	807690	247400	512850	174000	3.69
450	Valine-tRNA ligase (Fragmen OS-Musculus musculus GN=Vars PE=1 SV=1	Enzymes	G3UY93_MOUSE (+1)	Vars	0	0	638220	304460	206200	165890	182040	5.90
451	Ras-related protein 3/3 complex subunit 3 OS-Musculus musculus GN=Rpp3 PE=1 SV=1	Other proteins	ES2R3_MOUSE (+4)	Rpp3	3191200	201500	1449400	1005400	675680	238700	7.42	
452	26S proteasome non-ATPase regulatory subunit 13 OS-Musculus musculus GN=Psm13 PE=1 SV=1	Proteasome	Psm13_MOUSE	Psm13	514400	0	627410	216700	226900	424610	7.42	
453	Three prime repair exonuclease 2 OS-Musculus musculus GN=Trex2 PE=2 SV=1	Enzymes	TREX2_MOUSE	Trex2	1838700	736100	4043000	193110	512280	548750	0.75	
454	Glutathione S-transferase mu 5 OS-Musculus musculus GN=Gstm5 PE=1 SV=1	Enzymes	EP9V6_MOUSE (+2)	Gstm5	3013200	870200	242460	642630	398800	454980	1.05	
455	GIS ribosomal protein L18 OS-Musculus musculus GN=Rp18a PE=1 SV=2	Ribosome	RPL18A_MOUSE	Rp18a	595500	202600	505500	0	293340	479460	0.59	
456	Heterogeneous nuclear ribonucleoprotein L (Fragmen OS-Musculus musculus GN=Hnrnpl PE=1 SV=1	Ribosome	GS924_MOUSE (+1)	Hnrnpl	1003500	504130	322950	314720	287600	245080	0.91	
457	ATP synthase subunit f1, mitochondrial OS-Musculus musculus GN=Atp5f1 PE=1 SV=3	Enzymes	ATPK_MOUSE (+1)	Atp5f1	3422800	955520	483130	663300	803260	918480	1.45	
458	Isomorph 2 of 60S ribosomal protein L22-like 1 OS-Musculus musculus GN=Rpl22l1	Ribosome	sp Q2R757-2 RL22L_MOUSE (+1) Rpl22l1	sp Q2R757-2 RL22L_MOUSE (+1) Rpl22l1	386200	456620	392160	345300	617300	834180	1.61	
459	Costamer subunit gamma OS-Musculus musculus GN=Psma4 PE=1 SV=1	Proteasome	Psm4_MOUSE (+1)	Psma4	223000	0	0	985290	721170	113690	30.02	
460	Serine/threonine-protein kinase N3 (Fragmen OS-Musculus musculus GN=Pkn3 PE=1 SV=1	Proteasome	AZ8B6_MOUSE (+1)	Pkn3	1,928,407	2,966,407	1,838,407	1,87500	2,188,407	0	0.35	
461	Evlopin OS-Musculus musculus GN=Evpl PE=1 SV=3	Cell junctional proteins	EVPL_MOUSE	Evpl	111980	20280	786080	0	37790	0	0.34	
462	Heat shock 70 kDa protein 1 OS-Musculus musculus GN=Hsp70a PE=1 SV=1	Enzymes	HSP70A_MOUSE (+1)	Hsp70a	0	0	167900	864730	0	192590	2.29	
463	Ras-related protein Rab-25 OS-Musculus musculus GN=Raab25 PE=1 SV=2	Other proteins	RAB25_MOUSE	Rab25	1117600	295920	1345900	1,358,407	0	655990	3.70	
464	Dolichyl-diphosphooligocharide-protein glycosyltransferase subunit 2 OS-Musculus musculus GN=Rpn2 PE=1 SV=1	Enzymes	AZACG7_MOUSE (+1)	Rpn2	0	0	158820	364730	165520	332800	5.47	
465	ATP-binding cassette sub-family E member 1 OS-Musculus musculus GN=Abca1 PE=1 SV=1	Other proteins	ABCE1_MOUSE	Abce1	0	0	0	93180	23150	426050	>30.00	
466	Importin-7 OS-Musculus musculus GN=Import7 PE=1 SV=2	Other proteins	IMP7_MOUSE	Import7	0	0	126800	4005	0	0	7.26	
467	Synaptic vesicle membrane protein VAMP1 homolog OS-Musculus musculus GN=Vamp1 PE=1 SV=3	Other proteins	VAT1_MOUSE	Vat1	1206500	0	0	193300	260180	506810	2.97	
468	26S proteasome non-ATPase regulatory subunit 7 OS-Musculus musculus GN=Psm7 PE=1 SV=2	Proteasome	PSM7_MOUSE	Psm7	0	0	0	1,048,407	92760	817010	>30.00	
469	WD repeat-containing protein 1 OS-Musculus musculus GN=Wdr1 PE=1 SV=3	Other proteins	WDR1_MOUSE	Wdr1	0	0	0	272450	59720	385260	>30.00	
470	Thimet oligopeptidase OS-Musculus musculus GN=Thop1 PE=1 SV=1	Enzymes	THOP1_MOUSE (+1)	Thop1	432210	193060	56630	0	219780	30380	1.80	
471	Superoxide dismutase [Mn], mitochondrial OS-Musculus musculus GN=Sox2 PE=1 SV=3	Enzymes	SODM_MOUSE	Sox2	0	0	399410	0	503000	537790	92780	4.93
472	Isomorph 2 of Poly(C)-binding protein 2 OS-Musculus musculus GN=Pcbp2	Other proteins	sp Q1990-2 PCBP2_MOUSE (+2) Pcbp2	sp Q1990-2 PCBP2_MOUSE (+2) Pcbp2	420680	563840	437880	875900	782560	686530	1.65	
473	Heterogeneous nuclear ribonucleoprotein H OS-Musculus musculus GN=Hnrnp11 PE=1 SV=3	Other proteins	HNHR1_MOUSE (+1)	Hnrnp11	172880	186610	139390	50710	924390	0	0.72	
474	Exportin-1 OS-Musculus musculus GN=Xpo1 PE=1 SV=1	Other proteins	XPO1_MOUSE (+1)	Xpo1	264700	0	202350	0	615210	263770	4.70	
475	Proteasome subunit alpha type-1 OS-Musculus musculus GN=Psma1 PE=1 SV=1	Proteasome	PSA1_MOUSE (+1)	Psm1	0	0	202900	0	254700	620000	641790	6.70
476	Arachidonid 12-lipoxygenase, 12R-type OS-Musculus musculus GN=Allox12b PE=1 SV=1	Enzymes	FLXL2B_MOUSE	Allox12b	156830	125970	0	738670	133550	257100	1.72	
477	G60S ribosomal protein L29 OS-Musculus musculus GN=L29 PE=1 SV=1	Ribosome	FGL2L_MOUSE (+2)	L29	1,422,407	0	1,066,407	3,086,407	1,928,407	0	2.02	
478	Actin-related protein 2/1 complex subunit 3 OS-Musculus musculus GN=Arp2 PE=1 SV=3	Filaments	ARPC2_MOUSE (+1)	Arp2	0	0	37980	32490	17070	20700	>30.00	
479	Microtubule-associated protein 1A/B light chain 3B OS-Musculus musculus GN=Map1lb3 PE=1 SV=1	Filaments	MAP1LB_MOUSE	Map1lb3	0	0	0	1,166,407	4,008,407	3,528,407	7.30	
480	Costars family protein ABRA1 (Fragmen OS-Musculus musculus GN=Abra1 PE=1 SV=1	Other proteins	A0A1V2P7X0_MOUSE (+2)	Abra1	0	0	0	676890	1,368,407	2,368,407	3.00	
481	Ubiquitin carboxyl-terminal hydrolase 29 (Fragmen OS-Musculus musculus GN=Ubp29 PE=2 SV=1	Other proteins	Q84A4_MOUSE (+1)	Ubp29	5974200	0	7324600	8058900	1,078,407	61,146	1.46	
482	Protein disulfide-isomerase A6 OS-Musculus musculus GN=Pdi6a PE=1 SV=3	Enzymes	PDI6A_MOUSE (+1)	Pdi6a	0	0	425950	154460	68190	>30.00	>30.00	
483	Sulfotransferase OS-Musculus musculus GN=Suft2b1 PE=1 SV=1	Enzymes	A0A1B0G94_MOUSE (+3)	Suft2b1	0	0	247600	177090	302700	58890	4.30	
484	Proteasome subunit alpha type-7 OS-Musculus musculus GN=Psma7 PE=1 SV=1	Proteasome	PSA7_MOUSE	Psm7	0	0	0	403800	570460	274300	>30.00	
485	Proteasome subunit beta type-1 OS-Musculus musculus GN=Psmb5 PE=1 SV=1	Proteasome	PSMB5_MOUSE (+1)	Psm5	0	0	0	1,028,407	10,870	1,558,407	>30.00	
486	ATP-dependent 6-phosphofructokinase OS-Musculus musculus GN=PFKP PE=1 SV=1	Enzymes	Q8C6D_MOUSE (+2)	PFKP	0	0	0	100480	101670	635350	>30.00	
487	Cysteine protease OS-Musculus musculus GN=Atg4b PE=1 SV=1	Enzymes	A0AD04J65_MOUSE (+1)	Atg4b	326750	0	0	60090	260930	301500	12.17	
488	Transforming protein RhoA (Fragmen OS-Musculus musculus GN=Rhoa PE=1 SV=1	Other proteins	A0AD6V6_MOUSE (+1)	Rhoa	0	0	480970	256990	0	137900	1.17	
489	Hydroperoxidase isomerase LXCX3 OS-Musculus musculus GN=Lxcx3 PE=1 SV=2	Enzymes	LXCX3_MOUSE	Lxcx3	1492100	113870	215790	748670	682730	158200	3.80	
490	Protein phosphatase methyltransferase 1 OS-Musculus musculus GN=Ppm1 PE=1 SV=5	Enzymes	PPME1_MOUSE	Ppm1	552690	0	0	243100	262620	151400	11.89	
491	Dnal1 homolog subfamily A member 2 OS-Musculus musculus GN=Dna12a PE=1 SV=1	Other proteins	DNMA2_MOUSE	Dna12a	0	0	743210	0	64640	108740	2.33	
492	ATP-binding cassette sub-family F member 2 OS-Musculus musculus GN=Abcf1 PE=1 SV=1	Other proteins	ABCF1_MOUSE	Abcf1	0	0	28620	131710	626190	534890	8.77	
493	Probable ATP-dependent histone H2B deubiquitinase OS-Musculus musculus GN=Ubp1 PE=1 SV=1	Other proteins	Ubp1_MOUSE	Ubp1	657240	275260	0	61390	126460	217030	2.00	
494	Apoptosis-associated speck-like protein containing a CARD OS-Musculus musculus GN=Pycard PE=1 SV=1	Other proteins	ASC_MOUSE	Pycard	205200	0	160220	238480	318650	414590	2.64	
495	Collagen alpha 1(VI) chain OS-Musculus musculus GN=Col6a1 PE=1 SV=1	Other proteins	COL6A1_MOUSE	Col6a1	311930	206120	382560	437250	101220	636940	0.76	
496	Mitochondrial fission 1 protein OS-Musculus musculus GN=Mifn1 PE=1 SV=1	Other proteins	FIS1_MOUSE	Mifn1	240030	41670	260970	399370	636250	570990	1.75	
497	Microtubule-associated protein 1A/B light chain 3A OS-Musculus musculus GN=Map1la3a PE=1 SV=1	Filaments	MAP1LA3_MOUSE	Map1la3a	0	0	0	114140	2,848,407	157570	4.74	
498	Insulin-degrading enzyme (Fragmen OS-Musculus musculus GN=Id PE=1 SV=1	Other proteins	FRP9Z_MOUSE (+1)	Id	0	0	121750	0	331240	351480	3.16	
499	Proteasome subunit alpha type-4 OS-Musculus musculus GN=Psma4 PE=1 SV=1	Proteasome	PSA4_MOUSE	Psm4	0	0	220110	437340	895720	309020	7.46	
500	Testic-expressed gene 264 OS-Musculus musculus GN=Tex264 PE=1 SV=1	Other proteins	EQD37_MOUSE	Tex264	0	0	0	281420	778990	0	>30.00	
501	Target of Myb protein 1 OS-Musculus musculus GN=Tom1 PE=1 SV=1	Other proteins	Q8V1C_MOUSE (+3)	Tom1	0	0	0	51890	65120	0	>30.00	
502	Splicing factor, proline- and glutamine-rich OS-Musculus musculus GN=SFQ PE=1 SV=1	Other proteins	SFQ_MOUSE	Sfq	1420700	216660	162360	243340	137320	0	0.73	
503	Protein-unc-45 homolog 4 OS-Musculus musculus GN=Unc45 PE=1 SV=2	Other proteins	UNK45_MOUSE	Unc45a	0	0	568370	212300	562890	759010	160140	1.64
504	Eukaryotic translation initiation factor 4E OS-Musculus musculus GN=EIF4 PE=1 SV=1	Translation factors	EIF4_MOUSE (+3)	EIF4	0	0	677330	0	352340	1,286,407	>30.00	
505	Alpha 1-antrypsin-1 OS-Musculus musculus GN=Serpin1a PE=1 SV=1	Other proteins	A0A0AMQ34_MOUSE (+1)	Serpin1a	947560	209800	0	432290	0	304100	2.42	
506	Adenylate kinase isoenzyme 1 (Fragmen OS-Musculus musculus GN=Aki1 PE=1 SV=1	Enzymes	Z4Y9F_MOUSE (+2)	Aki1	422650	0	0	1,378,407	0	779020	5.09	
507	Annein (Fragmen OS-Musculus musculus GN=Anxin1 PE=1 SV=3	Other proteins	A0ADMSW89_MOUSE (+1)	Anxin4	0	0	141010	556190	413620	1246360	7.76	
508	Transition factors 1 OS-Musculus musculus GN=EIF2b5 PE=1 SV=1	Translation factors	EIF2B5_MOUSE (+1)	EIF2b5	259160	228870	0	155100	291460	205400	2.08	
509	Exportin-2 OS-Musculus musculus GN=Xpo2 PE=1 SV=1	Other proteins	EQO179_MOUSE (+1)	Xpo2	4,606,407	6,378,407	4,566,407	4,128,407	0	5,388,407	0.61	
510	Kinesin-like protein (Fragmen OS-Musculus musculus GN=Kif5b PE=1 SV=1	Enzymes	EQAK5_MOUSE (+1)	Kif5b	0	0	0	0	56390	220030	>30.00	
511	Serpin B13 OS-Musculus musculus GN=Serpinb13 PE=3 SV=1	Other proteins	DGRH5_MOUSE (+1)	Serpinb13	234180	1,296,407	374920	660710	802160	1,078,407	1.33	
512	Aitakin-2 OS-Musculus musculus GN=Aitk2 PE=1 SV=1	Other proteins	AITK2_MOUSE (+1)	Aitk2	0	0	217990	0	133460	21100	>30.00	
513	Cytoskeleton-associated protein 4 OS-Musculus musculus GN=Ckap4 PE=1 SV=2	Other proteins	CKAP4_MOUSE	Ckap4	0	0	798240	0	96200	638120	>30.00	
514	Cytochrome b-1 complex subunit 2, mitochondrial OS-Musculus musculus GN=Uqcrc2 PE=1 SV=1	Other proteins	CQR2_MOUSE	Uqcrc2	1492300	205810	163870	163370	166660	410160	1.43	
515	C9orf9 OS-Musculus musculus GN=C9 PE=1 SV=2	Other proteins	C9_MOUSE	C9	336810	0	629300	0	0	0	0.00	
516	Importin subunit alpha 2 OS-Musculus musculus GN=Impa2 PE=1 SV=1	Other proteins	A0A8AL1Z7_MOUSE (+1)	Impa2	795140	158990	0	235660	201460	332200	>30.00	
517	MCG10748, isoform CRA b OS-Musculus musculus GN=Rapa1a PE=1 SV=1	Other proteins	A0A0QD2L9_MOUSE (+3)	Rapa1a	163550	280940	283110	269330	285610	0	0.76	
518	Eukaryotic translation initiation factor 1A, X-chromosomal OS-Musculus musculus GN=EIF4a PE=2 SV=3	Translation factors	EIF1_MOUSE (+1)	EIF4a	254980	0	0	419680	574620	848990	7.23	
519	AS-association 2 (Fragmen OS-Musculus musculus GN=Asa2 PE=1 SV=1	Translation factors	EIF2X_MOUSE (+1)	EIF2x	0	0	185490	229610	288640	313150	4.48	
520	Isomorph 2 of Heterogeneous nuclear ribonucleoprotein U OS-Musculus musculus GN=Hnrnpu	Other proteins	Q8U1_MOUSE (+2)	Hnrnpu	284710	459660	356710	98190	126460	585460	2.09	
521	Peptidyl-lysine hydrolase 2, mitochondrial OS-Musculus musculus											

Table with columns: #, Identified proteins, Protein group, Accession number, Symbol, WT1, WT2, WT3, KO1, KO2, KO3, Ratio KO/WT. Contains data for 721 different protein entries.

Notes:

Search Engine: MaxQuant

Version: 1.5.7.4
Fragment Tolerance: 20 PPM (Monoisotopic)
Fixed Modifications: +57 on C (Carbamidomethyl)
Variable Modifications: +1 on NQ (Deamidated), +16 on M (Oxidation), +42 on n (Acetyl)
Digestion Enzyme: trypsin
Max Missed Cleavages: 2

Scaffold: Version: Scaffold\_4.8.4

Protein Grouping Strategy: Experiment-wide grouping with protein cluster analysis

Peptide Thresholds: 0.0% minimum
Protein Thresholds: 20.0% minimum and 1 peptide minimum
Peptide FDR: 0.4% (Decoy)
Protein FDR: 1.4% (Decoy)