

Supplementary Table 2. Detailed annotation of proteins identified in Method II

Protein ID	Protein accession	Protein description	Gene name	MW [kDa]	Score AVG	Peptides AVG
1433B_RAT	P35213	14-3-3 protein beta/alpha	Ywhab	28.05	1578.545	8
1433E_RAT	P62260	14-3-3 protein epsilon	Ywhae	29.17	4654.923	10
1433F_RAT	P68511	14-3-3 protein eta	Ywhah	28.21	2128.056	9
1433G_RAT	P61983	14-3-3 protein gamma	Ywhag	28.30	4878.047	11
1433T_RAT	P68255	14-3-3 protein theta	Ywhaq	27.78	1600.605	8
1433Z_RAT	P63102	14-3-3 protein zeta/delta	Ywhaz	27.77	17064.52	11
4F2_RAT	Q794F9	4F2 cell-surface antigen heavy chain	Slc3a2	58.07	25879.06	20
A0JN29_RAT	A0JN29	Lunapark ER junction formation factor	Lnpk	42.17	5453.1016	12
A0JN30_RAT	A0JN30	Canopy 2 homolog	Cnpy2	20.71	1589.0969	4
A1L1J8_RAT	A1L1J8	Ras-related protein Rab-5b	Rab5b	23.68	11794.084	8
A1L1L6_RAT	A1L1L6	Mitochondrial Rho GTPase 1	Rhot1	72.16	571.15546	10
A3RLA8_RAT	A3RLA8	Low affinity immunoglobulin gamma Fc region receptor II	Fcgr2b	37.97	6999.2134	9
AATM_RAT	P00507	Aspartate aminotransferase mitochondrial	Got2	47.31	1015.1728	11
ABCB6_RAT	O70595	ATP-binding cassette sub-family B member 6	Abcb6	93.31	5574.2964	13
ABCB8_RAT	Q5RKI8	ATP-binding cassette sub-family B member 8	Abcb8	77.77	1087.13	13
ABHGA_RAT	Q6MG55	Abhydrolase domain containing 16A	Abhd16a	63.04	529.3098	12
ACSL3_RAT	Q63151	Long chain fatty acid CoA ligase 3	Acsl3	80.46	318.20175	13
ACSL5_RAT	O88813	Long chain fatty acid CoA ligase 5	Acsl5	76.41	1395.4258	17
ACTB_RAT	P60711	Actin cytoplasmic 1	Actb	41.74	34703.336	21
ADA15_RAT	Q9QYV0	Disintegrin and metalloproteinase domain-containing protein 15	Adam15	93.31	474.3245	9
ADT1_RAT	Q05962	ADP/ATP translocase 1	Slc25a4	32.99	14974.186	13
ADT2_RAT	Q09073	ADP/ATP translocase 2	Slc25a5	32.90	25205.96	22
AIFM1_RAT	Q9J M53	Apoptosis-inducing factor 1	Aifm1	66.72	561.40063	11
AKAP1_RAT	O88884	A-kinase anchor protein 1, mitochondrial	Akap1	91.75	2523.194	13
AL5AP_RAT	P20291	Arachidonate 5-lipoxygenase-activating protein	Alox5ap	18.07	15126.04	5
ALDOA_RAT	P05065	Fructose-bisphosphate aldolase A	Aldoa	39.35	889.46655	7
ANXA1_RAT	P07150	Annexin A1	Anxa1	38.83	850.72046	10
APAF_RAT	Q9EPV5	Apoptotic protease-activating factor 1	Apaf1	141.15	424.95	9
ARL8B_RAT	Q66HA6	ADP-ribosylation factor-like protein 8B	Arl8b	21.54	4317.4966	10
ARM10_RAT	B1WBW4	Armadillo repeat-containing protein 10	Armc10	33.42	6899.171	9
ARMX3_RAT	Q5XID7	Armadillo repeat-containing X-linked protein 3	Armxc3	42.55	1883.8921	9
AT1A1_RAT	P06685	Sodium/potassium-transporting ATPase subunit alpha-1	Atp1a1	113.05	18895.371	42
AT1A4_RAT	Q64541	Sodium/potassium-transporting ATPase subunit alpha-4	Atp1a4	114.01	3007.623	12

AT1B3_RAT	Q63377	Sodium/potassium-transporting ATPase subunit beta-3	Atp1b3	31.83	13653.33	8
AT2A1_RAT	Q64578	Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 (SERCA1)	Atp2a1	109.41	7037.0156	18
AT5F1_RAT	P19511	ATP synthase F(0) complex subunit B1 mitochondrial	Atp5pb	28.87	6731.9316	11
ATAD1_RAT	Q505J9	ATPase family AAA domain-containing protein 1	Atad1	40.72	3386.4302	10
ATAD3_RAT	Q3KRE0	ATPase family AAA domain-containing protein 3	Atad3	66.76	3541.2605	21
ATP4A_RAT	P09626	Potassium-transporting ATPase alpha chain 1	Atp4a	114.04	1110.19	12
ATP5H_RAT	P31399	ATP synthase subunit D mitochondrial	Atp5pd	18.76	12645.211	7
ATP5I_RAT	P29419	ATP synthase subunit E mitochondrial	Atp5me	8.26	26547.965	5
ATP5J_RAT	P21571	ATP synthase-coupling factor 6 mitochondrial	Atp5pf	12.49	18856.01	5
ATPA_RAT	P15999	ATP synthase subunit alpha mitochondrial	Atp5f1a	59.75	48943.023	29
ATPG_RAT	P35435	ATP synthase subunit gamma mitochondrial	Atp5f1c	30.19	9105.262	11
ATPK_RAT	D3ZAF6	ATP synthase subunit F mitochondrial	Atp5mf	10.45	4065.0117	2
ATPO_RAT	Q06647	ATP synthase subunit O mitochondrial	Atp5po	23.40	20299.375	12
ATRAP_RAT	Q642A2	Type-1 angiotensin II receptor-associated protein	Agtrap	17.40	5631.5186	2
AUP1_RAT	A1L134	Ancient ubiquitous protein 1	Aup1	46.20	1158.9775	8
B0BN02_RAT	B0BN02	Metaxin 1	Mtx1	48.44	1487.6011	7
B0BN30_RAT	B0BN30	Mitochondrial carrier homolog 1	Mtch1	41.59	987.7393	6
B0BN52_RAT	B0BN52	Mitochondrial carrier homolog 2	Mtch2	33.53	5936.334	8
B0BN81_RAT	B0BN81	Ribosomal protein S5	Rps5	22.91	5174.41	5
B0BNG3_RAT	B0BNG3	Vesicular integral-membrane protein VIP36	Lman2	40.39	24611.645	18
B0BNK1_RAT	B0BNK1	Ras-related protein Rab-5c	Rab5c	23.43	19618.02	9
B1WBY5_RAT	B1WBY5	DnaJ homolog subfamily C member 11	Dnajc11	63.21	1092.5051	14
B1WBY7_RAT	B1WBY7	Erlin-1	Erlin1	39.27	4103.746	9
B1WC50_RAT	B1WC50	RNA-binding protein EWS-like	Ewsr1	68.33	1089.7468	9
B1WC61_RAT	B1WC61	Acyl-CoA dehydrogenase family member 9	Acad9	68.84	698.94855	13
B1WC67_RAT	B1WC67	Solute carrier family 25 member 24	Slc25a24	52.89	859.5758	10
B2GUV5_RAT	B2GUV5	V-type proton ATPase subunit G 1	Atp6v1g1	13.71	1920.5234	4
B2GUX5_RAT	B2GUX5	5'-nucleotidase	Nt5c3a	33.81	4055.9336	12
B2GUZ9_RAT	B2GUZ9	Fam49b protein	Fam49b	36.78	1878.8369	7
B2GV96_RAT	B2GV96	Coiled-coil domain containing 115	Ccdc115	19.82	2758.0981	7
B2MG_RAT	P07151	Beta-2-microglobulin	B2m	13.72	3851.3464	3
B2RYC9_RAT	B2RYC9	Glucosylceramidase	Gba	57.49	2284.374	13
B2RYD7_RAT	B2RYD7	STT3B, catalytic subunit of the oligosaccharyltransferase complex	Stt3b	93.44	1266.1827	12
B2RYF6_RAT	B2RYF6	Cleft lip and palate associated transmembrane protein 1	Clptm1	75.28	3689.6953	13
B2RYQ2_RAT	B2RYQ2	Serine/threonine-protein phosphatase 2A activator	Ptpa	36.62	738.1688	6
B2RZB3_RAT	B2RZB3	Eva-1 homolog B	Eva1b	24.58	966.3343	4
B2RZD1_RAT	B2RZD1	Protein transport protein Sec61 subunit beta	Sec61b	9.99	28681.2	3
B3A2_RAT	P23347	Anion exchange protein 2	Slc4a2	136.64	721.1465	20

B4F7C2_RAT	B4F7C2	Tubulin beta-4A	Tubb4a	49.59	2889.181	16
B4F7C9_RAT	B4F7C9	STT3A, catalytic subunit of the oligosaccharyltransferase complex	Stt3a	80.60	5105.618	19
B4GN1_RAT	Q10468	Beta-1,4 N-acetylgalactosaminyltransferase 1	B4galnt1	59.28	1427.76	12
B5DEL8_RAT	B5DEL8	NADH dehydrogenase (Ubiquinone) iron-sulfur protein 5	Ndufs5	12.70	652.6625	2
B5DEZ3_RAT	B5DEZ3	Coiled-coil domain containing 126	Ccdc126	15.53	4296.792	3
B5DFJ2_RAT	B5DFJ2	Protein FAM3A	Fam3a	25.15	1369.282	7
B6RK61_RAT	B6RK61	Myosin heavy chain 7B	Myh7b	221.63	18.7633	1
BAF_RAT	Q9R1T1	Barrier-to-autointegration factor	Banf1	10.05	2330.153	4
BASI_RAT	P26453	Basigin	Bsg	42.44	11856.585	8
BASP1_RAT	Q05175	Brain acid soluble protein 1	Basp1	21.79	41388.22	9
BET1_RAT	Q62896	Bet1 golgi vesicular membrane trafficking protein	Bet1	13.23	8325.793	2
BET1L_RAT	O35152	BET1-like protein	Bet1l	12.42	1466.276	2
C1GLC_RAT	Q499P3	C1GALT1-specific chaperone 1	C1galt1c1	36.04	1047.14	5
C1GLT_RAT	Q9JJ05	Glycoprotein-N-acetylgalactosamine 3-beta-galactosyltransferase 1	C1galt1	42.31	2600.0864	8
C1QBP_RAT	O35796	Complement component 1 Q subcomponent-binding protein mitochondrial	C1qbp	31.00	17896.625	7
CADM3_RAT	Q1WIM3	Cell adhesion molecule 3	Cadm3	42.91	6705.5596	11
CAH8_RAT	Q5PPN4	Carbonic anhydrase-related protein	Ca8	32.96	631.64404	5
CALR_RAT	P18418	Calreticulin	Calr	48.00	8945.08	11
CALX_RAT	P35565	Calnexin	Canx	67.26	19625.45	23
CBPA3_RAT	P21961	Mast cell carboxypeptidase A	Cpa3	47.94	1407.913	10
CCD47_RAT	Q5U2X6	Coiled-coil domain-containing protein 47	Ccdc47	55.73	10018.979	18
CD38_RAT	Q64244	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1	Cd38	34.44	4465.1885	9
CD48_RAT	P10252	CD48 antigen	Cd48	27.68	44269.734	14
CDC42_RAT	Q8CFN2	Cell division control protein 42 homolog (CDC42)	Cdc42	21.26	26481.715	8
CH10_RAT	P26772	10 kDa heat shock protein mitochondrial	Hspe1	10.90	11615.26	5
CH60_RAT	P63039	60 kDa heat shock protein	Hspd1	60.96	8192.467	24
CHPT1_RAT	Q66H21	Cholinephosphotransferase 1	Chpt1	44.60	1437.133	3
CISD1_RAT	B0K020	CDGSH iron-sulfur domain-containing protein 1	Cisd1	12.10	39811.453	7
CISY_RAT	Q8VHF5	Citrate synthase mitochondrial	Cs	51.87	1031.1398	6
CK5P3_RAT	Q9JLH7	CDK5 regulatory subunit-associated protein 3	Cdk5rap3	57.05	4572.61	16
CL2DB_RAT	Q0H8B9	C-type lectin domain family 2 member D11	Clec2d11	23.54	3521.782	7
CLCN5_RAT	P51796	Chloride intracellular channel protein 5	Clcn5	83.07	1283.8569	8
CLH1_RAT	P11442	Clathrin heavy chain 1	Cltc	191.60	613.12506	26
CMA1_RAT	P50339	Chymase 1	Cma1	27.57	1508.505	3
CNTN1_RAT	Q63198	Contactin 1	Cntn1	113.50	1301.9305	20
COF1_RAT	P45592	Cofilin-1	Cfl1	18.53	2967.661	6
COMT_RAT	P22734	Catechol O-methyltransferase	Comt	29.60	1367.642	7
COPB_RAT	P23514	Coatomer subunit beta 1	Copb1	107.01	1067.6825	20

COPB2_RAT	O35142	Coatomer subunit beta 2	Copb2	102.55	1245.673	16
COPD_RAT	Q66H80	Coatomer subunit delta	Arcn1	57.20	564.4874	9
COPG1_RAT	Q4AEF8	Coatomer subunit gamma 1	Copg1	97.61	405.6862	16
COX41_RAT	P10888	Cytochrome c oxidase subunit 4 isoform 1 mitochondrial	Cox4i1	19.52	12578.01	11
COX5A_RAT	P11240	Cytochrome c oxidase subunit 5A mitochondrial	Cox5a	16.13	17269.785	9
COX5B_RAT	P12075	Cytochrome c oxidase subunit 5B mitochondrial	Cox5b	13.92	6169.5947	6
CP20A_RAT	Q6P7D4	Cytochrome P450 20A1	Cyp20a1	52.00	704.8057	7
CP51A_RAT	Q64654	Lanosterol 14-alpha demethylase	Cyp51a1	56.71	2204.413	14
CR1L_RAT	Q63135	Complement component receptor 1-like protein	Cr1l	61.68	7281.857	19
CX6C2_RAT	P11951	Cytochrome c oxidase subunit 6C2	Cox6c2	8.46	6444.0205	4
CX7A2_RAT	P35171	Cytochrome c oxidase subunit 7A2	Cox7a2	9.35	2968.9531	3
CYB5B_RAT	P04166	Cytochrome b5 type B	Cyb5b	16.27	8170.613	5
D3Z9L0_RAT	D3Z9L0	Acylglycerol kinase	Agk	54.26	433.50516	8
D3ZAS9_RAT	D3ZAS9	DDRKG domain containing 1	Ddrkg1	38.61	10160.611	6
D3ZAY7_RAT	D3ZAY7	Band 4.1-like protein 2	Epb41l2	89.13	739.45105	17
D3ZCZ9_RAT	D3ZCZ9	NADH dehydrogenase [ubiquinone] iron-sulfur protein 6	LOC100912599	13.04	885.649	3
D3ZD09_RAT	D3ZD09	Cytochrome c oxidase subunit 6B1	Cox6b1	10.07	13217.445	7
D3ZD11_RAT	D3ZD11	Signal peptidase complex subunit 2	Spcs2	24.97	11044.09	13
D3ZD83_RAT	D3ZD83	Major facilitator superfamily domain-containing protein 10	Mfsd10	49.41	791.0322	5
D3ZDR2_RAT	D3ZDR2	Charged multivesicular body protein 6	Chmp6	23.29	1383.381	5
D3ZF11_RAT	D3ZF11	Ragulator complex protein LAMTOR5	Lamtor5	16.39	8052.9424	4
D3ZF12_RAT	D3ZF12	Signal peptidase complex subunit 3	Spcs3	20.33	6419.79	7
D3ZF54_RAT	D3ZF54	Anoctamin-10	Ano10	79.04	598.88275	10
D3ZF97_RAT	D3ZF97	Endoplasmic reticulum lectin 1	Erlec1	54.67	833.27783	10
D3ZFK5_RAT	D3ZFK5	Signal peptidase complex subunit 1	Spcs1	18.10	34303.133	4
D3ZG43_RAT	D3ZG43	NADH dehydrogenase (ubiquinone) iron-sulfur protein 3	Ndufs3	30.23	3831.0947	7
D3ZGM7_RAT	D3ZGM7	Peptidase inhibitor 16	Pi16	52.15	644.4734	2
D3ZGV2_RAT	D3ZGV2	Peroxisomal membrane protein PEX16	Pex16	35.30	343.32764	4
D3ZHA7_RAT	D3ZHA7	Myosin light chain 6B	RGD1560334_predicted	22.81	6198.9604	5
D3ZIE9_RAT	D3ZIE9	Delta-1-pyrroline-5-carboxylate synthase	Aldh18a1	87.33	369.4042	16
D3ZIJ5_RAT	D3ZIJ5	Dolichyl-phosphate mannosyltransferase subunit 3	Dpm3	10.09	3345.474	1
D3ZIP8_RAT	D3ZIP8	Endonuclease domain containing 1	---	38.11	6498.826	9
D3ZJ32_RAT	D3ZJ32	Extended synaptotagmin 2	Esyt2	93.95	1500.0415	16
D3ZJS3_RAT	D3ZJS3	Translocase of outer mitochondrial membrane 6	Tomm6	7.89	9962.432	2
D3ZJX5_RAT	D3ZJX5	Mitochondrial import inner membrane translocase subunit TIM50	Timm50	39.86	1962.5115	8
D3ZK56_RAT	D3ZK56	Ras-related protein Rap-2c	Rap2c	20.75	31541.605	9
D3ZKE6_RAT	D3ZKE6	Sarcolemmal membrane-associated protein	Slmap	90.56	1028.4661	30
D3ZL85_RAT	D3ZL85	Cytochrome c heme lyase	Hccs	31.13	1843.668	6

D3ZLC4_RAT	D3ZLC4	Slc2a6 protein	Slc2a6	35.90	1620.044	5
D3ZLT7_RAT	D3ZLT7	Uncharacterized protein KIAA2013	RGD1305350	69.48	1386.548	6
D3ZM19_RAT	D3ZM19	Protein EVI2B	Evi2b	45.62	893.4126	4
D3ZMM8_RAT	D3ZMM8	Solute carrier family 7 member 6	Slc7a6	56.82	422.52615	4
D3ZMR1_RAT	D3ZMR1	Translocase of outer mitochondrial membrane 7	Tomm7	6.18	2952.162	1
D3ZN21_RAT	D3ZN21	ATP-dependent RNA helicase DDX3Y	Ddx3y	72.99	1069.654	9
D3ZNG3_RAT	D3ZNG3	Signal peptide peptidase-like 2A	Sppl2a	59.84	411.4917	5
D3ZNS8_RAT	D3ZNS8	Aladin	Aaas	59.36	729.3629	7
D3ZP13_RAT	D3ZP13	Sulfhydryl oxidase 2	Qsox2	79.20	237.4855	5
D3ZP98_RAT	D3ZP98	Minor histocompatibility antigen H13	Hm13	40.28	1971.5709	9
D3ZPR0_RAT	D3ZPR0	Exportin-2	Cse1l	110.21	443.69458	13
D3ZQG9_RAT	D3ZQG9	RT1 class I locus CE4	RT1-CE4	40.08	6122.714	9
D3ZRN3_RAT	D3ZRN3	Beta-actin-like protein 2	Actbl2	41.96	9906.157	10
D3ZSA9_RAT	D3ZSA9	Nodal modulator 1	Nomo1	133.44	9235.345	36
D3ZSY5_RAT	D3ZSY5	keratin 84	Krt84	61.20	202.2945	3
D3ZTJ0_RAT	D3ZTJ0	Protein XRP2	Rp2	39.32	1668.8065	9
D3ZU83_RAT	D3ZU83	Endoplasmic reticulum-Golgi intermediate compartment 3	Ergic3	43.22	858.6881	6
D3ZUD8_RAT	D3ZUD8	Transmembrane 9 superfamily member 3	Tm9sf3	69.97	2607.2104	13
D3ZUQ7_RAT	D3ZUQ7	Pantothenate kinase 3	Pank3	41.09	151.1794	1
D3ZUX5_RAT	D3ZUX5	MICOS complex subunit MIC-19	Chchd3	26.44	7058.3394	11
D3ZUZ4_RAT	D3ZUZ4	Glycosaminoglycan xylosylkinase	Fam20b	46.57	2274.256	10
D3ZV75_RAT	D3ZV75	Major facilitator superfamily domain-containing protein 1	Mfsd1	51.20	1743.58	3
D3ZWS0_RAT	D3ZWS0	Protein scribble homolog	Scrib	179.85	1428.7123	20
D3ZWZ1_RAT	D3ZWZ1	Integrin alpha X	Itgax	130.18	9389.506	41
D3ZXF9_RAT	D3ZXF9	39S ribosomal protein L12, mitochondrial	Mrpl12	29.44	1390.9845	8
D3ZYM4_RAT	D3ZYM4	Macrophage stimulating 1 receptor	Mst1r	150.24	69.8444	1
D3ZYW2_RAT	Q499R8	Heterogeneous nuclear ribonucleoprotein H	Hnrnph1	20.58	671.74725	7
D3ZZR9_RAT	D3ZZR9	Peptidylprolyl isomerase	Fkbp2	15.39	281.2132	11
D3ZZS8_RAT	D3ZZS8	V-type proton ATPase subunit B, kidney isoform	Atp6v1b1	67.25	912.30475	9
D4A017_RAT	D4A017	Transmembrane protein 87 A	Tmem87a	61.67	1767.698	11
D4A0E2_RAT	D4A0E2	NSF attachment protein gamma	Napg	25.60	613.8713	6
D4A0G7_RAT	D4A0G7	Ras-related protein Rab-37	Rab37	24.66	6001.734	8
D4A0T0_RAT	D4A0T0	NADH dehydrogenase 1 beta subcomplex subunit 10	Ndufb10	20.86	4477.3477	8
D4A0T8_RAT	D4A0T8	Dehydrogenase/reductase SDR family member 7	Dhrs7	38.49	3295.6035	6
D4A0W1_RAT	D4A0W1	ER membrane protein complex subunit 4	Emc4	20.16	2497.1655	5
D4A133_RAT	D4A133	V-type proton ATPase catalytic subunit A	Atp6v1a	68.27	5861.986	31
D4A1D8_RAT	D4A1D8	Surfeit 4	Surf4	30.38	16413.965	7
D4A2H2_RAT	D4A2H2	Serine palmitoyltransferase 1	Sptlc1	52.55	629.18225	7

D4A2Z6_RAT	D4A2Z6	Translocation protein SEC63 homolog	Sec63	83.59	2278.4956	18
D4A376_RAT	D4A376	Ras-related protein Rab-12	Rab12	27.38	3937.3467	5
D4A416_RAT	D4A416	Cleft lip and palate transmembrane protein 1-like protein	Clptm11	62.29	1412.2905	10
D4A465_RAT	D4A465	Ragulator complex protein LAMTOR2	Lamtor2	13.48	35403.906	6
D4A4J3_RAT	D4A4J3	Alpha-mannosidase 2x	Man2a2	131.96	171.00595	5
D4A4T0_RAT	D4A4T0	STIP1 homology and U box-containing protein 1	Stub1	34.89	338.5735	7
D4A533_RAT	D4A533	Transmembrane anterior posterior transformation protein 1	Tapt1	69.56	319.5562	10
D4A5K6_RAT	D4A5K6	Zinc metallopeptidase STE24	Zmpste24	54.85	8281.583	9
D4A781_RAT	D4A781	Importin 5	Ipo5	123.71	438.79364	13
D4A7Y9_RAT	D4A7Y9	Essential MCU regulator, mitochondrial	Smdt1	11.59	1977.516	4
D4A994_RAT	D4A994	ER membrane protein complex subunit 1	Emc1	111.19	4429.3115	21
D4A9L2_RAT	D4A9L2	Serine/arginine-rich splicing factor 1	Srsf1	27.75	1289.941	5
D4A9X7_RAT	D4A9X7	Hypermethylated in cancer 2 protein	Hic2	67.20	609.6509	4
D4AA91_RAT	D4AA91	Ceramide synthase 5	Cers5	51.32	805.07056	7
D4AAE9_RAT	D4AAE9	CDGSH iron-sulfur domain-containing protein 2	Cisd2	15.29	24451.86	7
D4AAL4_RAT	D4AAL4	Adhesion G protein-coupled receptor L3	Adgrl3	172.45	460.62485	24
D4ABI7_RAT	D4ABI7	Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase	Hacd3	43.10	3264.7783	7
D4ABM3_RAT	D4ABM3	Dishevelled associated activator of morphogenesis 1	Daam1	112.64	2665.12	29
D4ABY2_RAT	D4ABY2	Coatomer subunit gamma 2	Copg2	80.49	678.3458	11
D4ACG2_RAT	D4ACG2	Acetolactate synthase-like protein	Ilvbl	72.27	731.1177	12
D4ADE8_RAT	D4ADE8	ATP-dependent RNA helicase DDX3X	Ddx3x	34.34	672.98505	5
D4ADS9_RAT	D4ADS9	EFR3 homolog A	Efr3a	92.52	3957.558	27
D4ADV4_RAT	Q80ZA5	Sodium-driven chloride bicarbonate exchanger	Slc4a10	125.64	939.1171	6
D4AEG2_RAT	D4AEG2	Ras-related protein Rab-32	Rab32	25.26	8105.4756	8
DAD1_RAT	P61805	Dolichyl-diphosphooligosaccharide protein glycosyltransferase subunit DAD1	Dad1	12.50	20682.31	3
DHC24_RAT	Q5BQE6	Delta(24)-sterol reductase	Dhcr24	60.05	924.7401	8
DHCR7_RAT	Q9Z2Z8	7-dehydrocholesterol reductase	Dhcr7	54.16	1749.263	9
DHE3_RAT	P10860	Glutamate dehydrogenase 1	Glud1	61.42	441.7484	11
DHPR_RAT	P11348	Dihydropteridine reductase	Qdpr	25.55	408.2444	4
DHSA_RAT	Q920L2	Succinate dehydrogenase [ubiquinone] flavoprotein subunit mitochondrial	Sdha	71.62	5168.7197	23
DHSB_RAT	P21913	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit mitochondrial	Sdhb	31.83	2446.2795	9
E2AK3_RAT	Q9Z1Z1	Eukaryotic translation initiation factor 2-alpha kinase 3	Eif2ak3	124.77	602.3982	19
E9PT10_RAT	Q861Q1	MHC class I antigen	RT1-CE4	42.08	5165.4585	6
E9PT29_RAT	E9PT29	ATP-dependent RNA helicase DDX17	Ddx17	72.46	985.8777	9
E9PTI1_RAT	E9PTI1	V-type proton ATPase subunit H	Atp6v1h	50.83	2445.845	6
E9PTU4_RAT	E9PTU4	Myosin heavy chain 11	Myh11	227.30	458.32947	28
E9PTW1_RAT	E9PTW1	Secretory carrier-associated membrane protein	Scamp3	38.50	15290.525	8
E9PTX9_RAT	E9PTX9	Solute carrier family 12 member 2	Slc12a2	130.37	1066.7125	16

E9PU37_RAT	E9PU37	Palmitoyltransferase	Zdhhc13	70.77	750.1116	12
E9PU77_RAT	E9PU77	Synaptotagmin-like protein 3	Syt13	68.69	2004.4719	15
ECHA_RAT	Q64428	Trifunctional enzyme subunit alpha	Hadha	82.67	3063.2075	23
EF1G_RAT	Q68FR6	Elongation factor 1-gamma	Eef1g	50.06	1391.5375	11
EF2_RAT	P05197	Elongation factor 2	Eef2	95.28	1866.2566	22
EMC2_RAT	B0BNG0	ER membrane protein complex subunit 2	Emc2	34.87	10491.857	10
EMC3_RAT	Q5U2V8	ER membrane protein complex subunit 3	Emc3	29.98	2137.417	8
EMC8_RAT	Q5FVL2	ER membrane protein complex subunit 8	Emc8	23.41	10935.938	8
ENOA_RAT	P04764	Alpha-enolase	Eno1	47.13	2993.3784	16
ENPL_RAT	Q66HD0	Endoplasmin	Hsp90b1	92.77	3524.756	23
ENPP3_RAT	P97675	Ectonucleotide pyrophosphatase/phosphodiesterase family member 3	Enpp3	99.07	3102.8271	22
ERLN2_RAT	B5DEH2	Erlin-2	Erlin2	37.71	6296.634	13
ESYT1_RAT	Q9Z1X1	Extended synaptotagmin 1	Esyt1	121.16	7809.712	43
F1LM66_RAT	F1LM66	116 kDa U5 small nuclear ribonucleoprotein component	Eftud2	109.35	61.3982	1
F1LMG7_RAT	F1LMG7	Leucine-rich repeat-containing protein 7	Lrrc7	56.68	101.5547	3
F1LMK0_RAT	F1LMK0	A-kinase anchoring protein 1 isoform 2	Akap1	57.65	3006.1821	14
F1LMM5_RAT	F1LMM5	Arachidonate 5-lipoxygenase	Alox5	78.13	6856.393	23
F1LN88_RAT	F1LN88	Aldehyde dehydrogenase	Aldh2	56.52	406.324	8
F1LNC4_RAT	F1LNC4	Vesicle transport through interaction with t-SNAREs homolog 1B	Vti1b	23.10	7061.8354	10
F1LNF0_RAT	F1LNF0	Myosin heavy chain 14	Myh14	228.91	502.265	28
F1LNT8_RAT	F1LNT8	VAMP8	Vamp8	11.19	10217.439	5
F1LNX2_RAT	F1LNX2	Calcium release-activated calcium channel protein 1 (Orai1)	Orai1	32.44	1446.3807	2
F1LP82_RAT	F1LP82	Ras-related protein Rab-2a	Rab2a	22.81	28618.023	13
F1LPK9_RAT	F1LPK9	Phosphatidylinositol glycan anchor biosynthesis class U protein	Pigu	49.80	2507.71	3
F1LQ81_RAT	F1LQ81	Vesicle-fusing ATPase	Nsf	82.63	10610.1	29
F1LQ92_RAT	F1LQ92	Sel-1 homolog 1	Sel1l	88.44	436.3137	13
F1LQR8_RAT	F1LQR8	Inositol 1,4,5-trisphosphate receptor type 2	Itpr2	234.15	1721.356	50
F1LRK1_RAT	F1LRK1	Sodium/potassium-transporting ATPase subunit alpha	Atp4a	114.04	929.3479	10
F1LRV9_RAT	F1LRV9	Myosin heavy chain 1	Myh1	223.40	18.7633	1
F1LSI5_RAT	F1LSI5	Ras GTPase-activating protein 3	Rasa3	18.93	554.1449	18
F1LSV4_RAT	Q3B7D2	Serine palmitoyltransferase 2	Sptlc2	62.96	340.8114	9
F1LT70_RAT	F1LT70	Pantothenate kinase 2	Pank2	48.70	151.1794	1
F1LU48_RAT	F1LU48	Endoplasmic reticulum-golgi intermediate compartment 1	Ergic1	35.01	2118.4985	8
F1LVC3_RAT	F1LVC3	Ras-related protein Rab-6b	Rab6b	19.88	14459.689	10
F1LW77_RAT	F1LW77	Ras-related protein Rab-33b	Rab33b	25.75	6495.215	3
F1LX07_RAT	F1LX07	Solute carrier family 25 member 12	Slc25a12	71.92	2848.0625	19
F1LZW6_RAT	F1LZW6	Solute carrier family 25 member 13	Slc25a13	54.10	4341.621	24
F1LZX9_RAT	F1LZX9	Integrin alpha 5	Itgav	115.58	4434.619	32

F1M0G0_RAT	F1M0G0	Regulator of G-protein signaling 17	Rgs17	24.32	18100.955	8
F1M0J3_RAT	F1M0J3	Sodium bicarbonate cotransporter 3, isophorm 4	Slc4a7	126.85	2402.228	25
F1M1U0_RAT	F1M1U0	Matrix remodeling associated 7	Mxra7	15.89	510.5609	1
F1M391_RAT	F1M391	Stimulator of interferon genes protein	Tmem173	42.66	3505.448	6
F1M5Z5_RAT	F1M5Z5	Anoctamin-6	Ano6	92.23	340.6557	10
F1M6W2_RAT	F1M6W2	Endoplasmic reticulum metallopeptidase 1	Ermp1	99.98	1936.6069	13
F1M779_RAT	F1M779	Clathrin heavy chain	Cltc	191.56	394.4044	24
F1M790_RAT	F1M790	Prostaglandin F2 receptor negative regulator	Ptgfrn	98.67	1393.22	20
F1M7T6_RAT	F1M7T6	Translocon-associated protein subunit gamma	Ssr3	7.38	20326.365	3
F1M8F6_RAT	F1M8F6	Myosin heavy chain 8	Myh8	166.64	18.7633	1
F1MA50_RAT	F1MA50	transmembrane protein 123	Tmem123	15.22	1612.2595	2
F1MA89_RAT	F1MA89	Cyclin Y	Ccny	39.37	839.9437	7
F1MAS0_RAT	F1MAS0	keratin 32	Krt32	51.53	1196.745	7
F6T9E7_RAT	F6T9E7	P-selectin glycoprotein ligand 1	Selplg	44.44	739.8876	2
F7EP67_RAT	Q6IN10	Endothelin-converting enzyme 1 Isoform	Ece1	85.59	459.2204	15
F7F4S8_RAT	B2RYB8	Integrin beta 2	Itgb2	84.82	20343.656	36
F7F744_RAT	Q6S395	Plectin	Plec	517.53	3118.4915	158
F7FFV2_RAT	F7FFV2	keratin 5	Krt5	44.02	4067.2588	12
F7FKI5_RAT	F7FKI5	Pyruvate dehydrogenase component E1 alpha	Pdha1	43.11	1030.9702	12
F7FNS3_RAT	F7FNS3	Derlin	Derl1	28.85	1641.825	4
FACR1_RAT	Q66H50	Fatty acyl-CoA reductase 1	Far1	59.27	2376.1807	14
FADS2_RAT	Q9Z122	Acyl-CoA 6-desaturase	Fads2	52.38	4900.399	10
FAF2_RAT	Q5BK32	FAS-associated factor 2	Faf2	41.08	2111.1401	11
FAM3C_RAT	Q810F4	Protein FAM3C	Fam3c	24.71	15365.18	10
FCERB_RAT	P13386	High affinity immunoglobulin epsilon receptor subunit beta	Ms4a2	26.73	17897.814	9
FCERG_RAT	P20411	High affinity immunoglobulin epsilon receptor subunit gamma	Fcer1g	9.77	12236.995	4
FGOP2_RAT	Q6TA25	FGFR1 oncogene partner 2 homolog	Fgfr1op2	29.37	643.8412	9
FGR_RAT	Q6P6U0	Tyrosine-protein kinase Fgr	Fgr	58.82	508.04712	3
FIS1_RAT	P84817	Mitochondrial fission 1 protein	Fis1	17.00	3646.877	4
FKBP8_RAT	Q3B7U9	Peptidyl-prolyl cis-trans isomerase FKBP8	Fkbp8	43.56	11431.855	10
FLOT1_RAT	Q9Z1E1	Flotillin-1	Flot1	47.50	2314.9595	18
FLOT2_RAT	Q9Z2S9	Flotillin-2	Flot2	47.04	3362.4966	17
FRK_RAT	Q62662	Tyrosine-protein kinase FRK	Frk	58.17	76.13575	1
FUT8_RAT	Q6EV76	Alpha-(1,6)-fucosyltransferase	Fut8	66.49	1289.239	12
G3P_RAT	P04797	Glyceraldehyde-3-phosphate dehydrogenase	Gapdh	35.83	17496.055	14
G3PT_RAT	Q9ESV6	Glyceraldehyde-3-phosphate dehydrogenase testis-specific	Gapdhs	46.71	2802.8984	6
G3V608_RAT	G3V608	Interleukin-3 receptor subunit beta	Csf2rb	99.14	616.4434	14
G3V637_RAT	G3V637	Syntaxin-binding protein 2, isoform	Stxbp2	66.65	3765.574	24



G3V667_RAT	G3V667	Integrin alpha 6	Itga6	119.48	743.091	17
G3V679_RAT	G3V679	Transferrin receptor protein 1	Tfrc	85.88	3309.5024	26
G3V6D3_RAT	G3V6D3	ATP synthase subunit beta	Atp5f1b	56.35	51747.17	23
G3V6E1_RAT	G3V6E1	Myosin heavy chain 2	Myh2	219.58	18.7633	1
G3V6H0_RAT	G3V6H0	Ras-related protein Rab-1b	LOC100363782	22.18	55245.715	14
G3V6H5_RAT	G3V6H5	Solute carrier family 25 member 11	Slc25a11	34.14	3730.7212	12
G3V6N2_RAT	G3V6N2	Transmembrane emp24 domain-containing protein 4	Tmed4	26.12	10377.479	9
G3V6P7_RAT	G3V6P7	Myosin heavy chain 9	Myh9	226.41	7561.104	86
G3V6P8_RAT	G3V6P8	Guanine nucleotide-binding protein gamma-12	Gng12	7.99	77053.73	5
G3V6R4_RAT	G3V6R4	Leucine-rich repeat-containing protein 1	Lrrc1	59.39	2278.051	15
G3V6T1_RAT	G3V6T1	Coatomer subunit alpha	Copa	138.36	777.2628	27
G3V6W2_RAT	G3V6W2	Prolactin regulatory element-binding protein	Preb	45.37	6251.9053	13
G3V712_RAT	G3V712	keratin 7	Krt7	50.81	490.895	9
G3V741_RAT	G3V741	Solute carrier family 25 member 3	Slc25a3	39.53	20163.805	20
G3V784_RAT	G3V784	ADP-dependent glucokinase	Adpgk	53.92	1159.181	10
G3V7A5_RAT	G3V7A5	Low density lipoprotein receptor isoform	Ldlr	96.65	1045.3892	14
G3V7I0_RAT	G3V7I0	Peroxiredoxin-3	Prdx3	28.30	1017.8773	7
G3V7I3_RAT	G3V7I3	Manganese-transporting ATPase 13A1	Atp13a1	131.92	3255.567	36
G3V7L8_RAT	G3V7L8	V-type proton ATPase subunit E 1 isoform	Atp6v1e1	26.14	295.3137	12
G3V7M2_RAT	G3V7M2	Integrin beta 7	Itgb7	87.63	943.3401	13
G3V7N0_RAT	G3V7N0	Heparan sulfate 2-O-sulfotransferase 1	Hs2st1	41.85	2052.1785	9
G3V7N6_RAT	G3V7N6	Lysophospholipid acyltransferase 7	Mboat7l1	53.38	6267.8555	4
G3V7Q7_RAT	G3V7Q7	Ras GTPase-activating-like protein IQGAP1	Iqgap1	188.83	242.0032	20
G3V7U6_RAT	G3V7U6	Calpain 5	Capn5	84.51	2057.5771	20
G3V7Y9_RAT	P28494	Alpha-mannosidase 2	Man2a1	131.24	3329.9321	30
G3V878_RAT	G3V878	Signal peptidase complex catalytic subunit SEC11	Sec11c	21.66	4794.677	6
G3V887_RAT	G3V887	V-type proton ATPase subunit A	Tcirg1	93.21	1935.7375	14
G3V8F5_RAT	G3V8F5	Mitochondrial import receptor subunit TOM40 homolog	Tomm40	37.92	5112.55	10
G3V8G5_RAT	G3V8G5	Golgi apparatus protein 1	Glg1	133.55	5129.583	42
G3V8I4_RAT	G3V8I4	Syntaxin-4A	Stx4	34.20	1110.8849	8
G3V8L7_RAT	G3V8L7	Integrin alpha M	Itgam	127.19	2563.312	30
G3V8Q1_RAT	G3V8Q1	Coatomer subunit epsilon	Cope	34.65	1239.242	8
G3V8V4_RAT	G3V8V4	Ceramide synthase 2	Cers2	44.95	1771.848	5
G3V8Z1_RAT	G3V8Z1	Linker for activation of T-cells family member 2 (NTAL)	Lat2	23.10	6248.498	3
G3V908_RAT	G3V908	keratin, type II Kb15	Kb15	57.61	7247.892	15
G3V936_RAT	G3V936	Citrate synthase	Cs	51.83	1031.1398	6
G3V964_RAT	G3V964	Neurotrimin	Ntm	37.62	943.8691	6
G3V9N0_RAT	G3V9N0	Polyadenylate-binding protein 4	Pabpc4	70.83	1690.4026	16

G3V9N9_RAT	G3V9N9	alpha-1,2-Mannosidase	Man1a1	73.13	1150.4861	16
G3V9S3_RAT	G3V9S3	Tyrosine-protein phosphatase non-receptor type 13	Ptpn13	270.44	13.86	1
G3V9U7_RAT	G3V9U7	Sarcoplasmic/endoplasmic reticulum calcium ATPase 3 (SERCA3)	Atp2a3	109.37	8865.377	29
G3V9W2_RAT	G3V9W2	Tyrosine-protein kinase JAK1	Jak1	133.26	264.684	22
G3V9X8_RAT	G3V9X8	Magnesium transporter protein 1	Magt1	37.94	919.5995	4
G3V9Y2_RAT	G3V9Y2	Phospholipid phosphatase 1	Plpp1	31.91	616.2256	3
GALT1_RAT	Q10473	Polypeptide N-acetylgalactosaminyltransferase 1	Galnt1	64.23	828.2299	13
GALT7_RAT	Q9R0C5	Polypeptide N-acetylgalactosaminyltransferase 7	Galnt7	75.34	2017.703	13
GBB1_RAT	P54311	Transducin beta-1	Gnb1	37.38	40187.645	18
GBB2_RAT	P54313	Transducin beta-2	Gnb2	37.33	53010.633	16
GBB4_RAT	O35353	Transducin beta-4	Gnb4	37.36	18455	12
GFAP_RAT	P47819	Glial fibrillary acidic protein	Gfap	49.96	3110.5884	10
GHITM_RAT	Q5XIA8	Growth hormone-inducible transmembrane protein	Ghitm	37.18	1950.2825	5
GL8D1_RAT	Q6AYF6	Glycosyltransferase 8 domain-containing protein 1	Glt8d1	42.14	669.46295	5
GNA11_RAT	Q9JID2	Guanine nucleotide-binding protein alpha-11	Gna11	42.03	7346.748	10
GNAI2_RAT	P04897	Guanine nucleotide-binding protein G(i) subunit alpha-2	Gnai2	40.50	78538.42	26
GNAI3_RAT	P08753	Guanine nucleotide-binding protein G(k) subunit alpha	Gnai3	40.52	49947.156	24
GNAQ_RAT	P82471	Guanine nucleotide-binding protein G(q) subunit alpha	Gnaq	42.14	7457.616	15
GNAS2_RAT	P63095	Guanine nucleotide-binding protein G(s) subunit alpha	Gnas	45.66	16917.3	16
GNAZ_RAT	P19627	Guanine nucleotide-binding protein G(z) subunit alpha	Gnaz	40.88	8040.4985	13
GOGA2_RAT	Q62839	Golgin subfamily A member 2	Golga2	112.87	286.6845	12
GOGA7_RAT	Q6AYQ1	Golgin subfamily A member 7	Golga7	15.78	2409.3254	4
GOLI4_RAT	Q5BJK8	Golgi integral membrane protein 4	Golim4	76.60	4551.551	16
GOSR2_RAT	O35165	Golgi SNAP receptor complex member 2	Gosr2	24.61	1689.4465	4
GPDM_RAT	P35571	Glycerol-3-phosphate dehydrogenase mitochondrial	Gpd2	80.97	1379.1694	17
GPSM3_RAT	Q6MG88	G-protein-signaling modulator 3	Gpsm3	17.49	2360.417	3
GRP75_RAT	P48721	Mortalin	Hspa9	73.86	973.8264	18
GRP78_RAT	P06761	Endoplasmic reticulum chaperone BiP	Hspa5	72.35	13030.68	26
GTR1_RAT	P11167	Solute carrier family 2, facilitated glucose transporter member 1	Slc2a1	53.96	2702.7566	7
GTR3_RAT	Q07647	Solute carrier family 2, facilitated glucose transporter member 3	Slc2a3	53.58	37964.523	11
H14_RAT	P15865	Histone H1.4	Hist1h1e	21.99	1016.0143	4
H4_RAT	P62804	Histone H4	Hist1h4b; Hist1h4m; Hist4h4	11.37	2001.5176	5
HA12_RAT	P16391	RT1 class I histocompatibility antigen AA alpha chain	---	41.83	15494.76	14
HMOX1_RAT	P06762	Heme oxygenase 1	Hmox1	33.01	8042.461	12
HMOX2_RAT	P23711	Heme oxygenase 2	Hmox2	35.76	2565.247	10
HNRPF_RAT	Q794E4	Heterogeneous nuclear ribonucleoprotein F	Hnrnpf	45.73	286.0756	6
HRG1_RAT	B0BNL4	Heme transporter HRG1	Slc48a1	16.62	820.79425	8
HS90A_RAT	P82995	Heat shock protein HSP 90-alpha	Hsp90aa1	84.82	8623.396	18

HS90B_RAT	P34058	Heat shock protein HSP 90-beta	Hsp90ab1	83.28	11356.891	27
HSP72_RAT	P14659	Heat shock-related 70 kDa protein 2	Hspa2	69.64	14908.165	16
HSP7C_RAT	P63018	Heat shock cognate 71 kDa protein	Hspa8	70.87	41142.43	29
ICAM1_RAT	Q00238	Intercellular adhesion molecule 1 (ICAM1)	Icam1	60.14	3709.9238	12
IF4A2_RAT	Q5RKI1	Eukaryotic initiation factor 4A-II	Eif4a2	46.40	547.23773	6
IKIP_RAT	Q5EAJ6	Inhibitor kappa-B kinase-interacting protein	Ikbip	42.36	1422.366	9
ILRL1_RAT	Q62611	Interleukin 1 receptor-like 1	Il1rl1	64.41	9368.721	16
IMB1_RAT	P52296	Importin subunit beta-1	Kpnb1	97.12	663.5588	12
IMMT_RAT	Q3KR86	MICOS complex subunit Mic60	Immt	67.18	11029.786	21
IMPA3_RAT	D4AD37	Inositol monophosphatase 3	Impad1	38.57	5946.5176	7
IR3IP_RAT	P85007	Immediate early response 3-interacting protein 1	Ier3ip1	9.00	43136.105	2
IRK2_RAT	Q64273	Inward rectifier potassium channel 2	Kcnj2	48.20	453.43683	3
ITAD_RAT	Q9QYE7	Integrin alpha D	Itgad	126.60	915.6053	12
ITB1_RAT	P49134	Integrin beta 1	Itgb1	88.50	10606.656	20
ITFG3_RAT	Q5M7W6	Protein FAM234A	Fam234a	60.64	364.1404	6
ITM2B_RAT	Q5XIE8	Integral membrane protein 2B	Itm2b	30.31	1399.8596	6
ITM2C_RAT	Q5PQL7	Integral membrane protein 2C	Itm2c	30.48	8972.389	10
ITPR2_RAT	P29995	Inositol 1,4,5-trisphosphate receptor type 2	Itpr2	307.06	1859.219	59
ITPR3_RAT	Q63269	Inositol 1,4,5-trisphosphate receptor type 3	Itpr3	304.29	268.3315	38
K1C10_RAT	Q6IFW6	Keratin, type I cytoskeletal 10	Krt10	56.51	3125.5767	13
K1C14_RAT	Q6IFV1	Keratin, type I cytoskeletal 14	Krt14	52.68	1947.469	9
K1C15_RAT	Q6IFV3	Keratin, type I cytoskeletal 15	Krt15	48.87	2066.3047	9
K1C17_RAT	Q6IFU8	Keratin, type I cytoskeletal 17	Krt17	48.12	1520.085	9
K1C18_RAT	Q5BJY9	Keratin, type I cytoskeletal 18	Krt18	47.76	1424.4766	7
K1C42_RAT	Q6IFU7	Keratin, type I cytoskeletal 42	Krt42	50.21	1341.0945	10
K22E_RAT	Q6IG02	Keratin, type II cytoskeletal 2 epidermal	Krt2	69.13	1619.1815	8
K2C1_RAT	Q6IMF3	Keratin, type II cytoskeletal 1	Krt1	64.83	6467.131	15
K2C1B_RAT	Q6IG01	Keratin, type II cytoskeletal 1B	Krt77	57.26	2745.867	9
K2C4_RAT	Q6IG00	Keratin, type II cytoskeletal 4	Krt4	57.67	779.46643	13
K2C6A_RAT	Q4FZU2	Keratin, type II cytoskeletal 6A	Krt6a	59.25	5880.4443	11
K2C7_RAT	Q6IG12	Keratin, type II cytoskeletal 7	Krt7	50.71	3154.8394	12
K2C73_RAT	Q6IG03	Keratin, type II cytoskeletal 73	Krt73	60.39	5609.4053	11
K2C75_RAT	Q6IG05	Keratin, type II cytoskeletal 75	Krt75	59.03	3936.6782	12
K2C8_RAT	Q10758	Keratin, type II cytoskeletal 8	Krt8	54.02	3248.8926	12
KAP2_RAT	P12368	cAMP-dependent protein kinase type II-alpha regulatory subunit	Prkar2a	45.48	450.8543	5
KC1G1_RAT	Q62761	Casein kinase I isoform gamma-1	Csnk1g1	45.13	1386.6904	13
KC1G2_RAT	Q62762	Casein kinase I isoform gamma-2	Csnk1g2	47.64	1022.759	10
KC1G3_RAT	Q62763	Casein kinase I isoform gamma-3	Csnk1g3	51.43	2977.0906	14

KPYM_RAT	P11980	Pyruvate kinase PKM	Pkm	57.82	3335.2876	14
LAMP1_RAT	P14562	Lysosome-associated membrane glycoprotein 1 (Lamp1)	Lamp1	43.97	2130.0125	7
LAMP2_RAT	P17046	Lysosome-associated membrane glycoprotein 2 (Lamp2)	Lamp2	45.16	1748.5774	4
LAP2_RAT	Q62733	Lamina-associated polypeptide 2 isoform beta	Tmpo	50.28	3172.5151	12
LAT_RAT	O70601	Linker for activation of T-cells family member 1 (LAT)	Lat	26.19	4592.621	7
LAT1_RAT	Q63016	Large neutral amino acids transporter small subunit 1	Slc7a5	55.90	1773.999	7
LBR_RAT	O08984	Lamin-B receptor	Lbr	70.72	2114.675	11
LDHA_RAT	P04642	L-lactate dehydrogenase A chain	Ldha	36.45	1576.633	9
LDLR_RAT	P35952	Low-density lipoprotein receptor	Ldlr	96.62	1431.886	14
LETM1_RAT	Q5XIN6	Mitochondrial proton/calcium exchanger protein	Letm1	83.06	826.77905	13
LEUK_RAT	P13838	Leukosialin	Spn	38.43	1175.2317	5
LMAN1_RAT	Q62902	Lectin mannose-binding 1	Lman1	57.96	6617.7812	13
LMBD1_RAT	Q6AZ61	Probable lysosomal cobalamin transporter	Lmbrd1	61.02	826.9542	1
LMF2_RAT	A1L1J9	Lipase maturation factor 2	Lmf2	80.25	1244.6265	7
LPPRC_RAT	Q5SGE0	Leucine-rich PPR motif-containing protein mitochondrial	Lrpprc	156.65	1723.363	33
LRC59_RAT	Q5RJR8	Leucine-rich repeat-containing protein 59	Lrrc59	34.87	9316.835	11
LTOR1_RAT	Q6P791	Ragulator complex protein LAMTOR1	Lamtor1	17.72	20131.82	11
LTOR3_RAT	Q5U204	Ragulator complex protein LAMTOR3	Lamtor3	13.58	18707.53	4
LYN_RAT	Q07014	Tyrosine-protein kinase Lyn	Lyn	58.66	62104.484	33
M0R402_RAT	M0R402	Protein disulfide-isomerase TMX3	Tmx3	52.10	759.8056	10
M0RAJ8_RAT	M0RAJ8	40S ribosomal protein S2	---	31.41	2199.025	4
M0RBJ0_RAT	M0RBJ0	Guanine nucleotide-binding protein gamma-2	Gng2	4.88	51315.395	5
M0RC99_RAT	M0RC99	Ras-related protein Rab-5a	Rab5a	23.63	7851.471	7
M0RCA3_RAT	M0RCA3	Zinc finger protein-like 1	Zfpl1	34.25	2976.191	6
M0RCF3_RAT	M0RCF3	Integrin beta 3	Itgb3	87.08	4581.119	21
M0RCS2_RAT	M0RCS2	Transducin beta-like protein 2	Tbl2	17.40	1252.123	13
M0RD75_RAT	M0RD75	40S ribosomal protein S6	Rps6	28.42	2664.179	7
M0RDI5_RAT	M0RDI5	Mitochondrial calcium uniporter	Mcu	39.76	1066.463	7
MAVS_RAT	Q66HG9	Mitochondrial antiviral-signaling protein	Mavs	53.81	1582.96	8
MBOA5_RAT	Q5FVN0	Lysophospholipid acyltransferase 5	Lpcat3	56.02	4474.037	8
MDHM_RAT	P04636	Malate dehydrogenase mitochondrial	Mdh2	35.68	1374.79	9
MGAT2_RAT	Q09326	Alpha-1,6-mannosyl-glycoprotein 2-beta-N-acetylglucosaminyltransferase	Mgat2	51.11	1614.162	11
MIRO2_RAT	Q7TSA0	Mitochondrial Rho GTPase 2	Rhot2	69.15	564.2921	9
MLEC_RAT	Q5FVQ4	Malectin	Mlec	32.42	17085.227	13
MMGT1_RAT	B5DF51	Membrane magnesium transporter 1	Mmgt1	14.68	4324.251	2
MOGS_RAT	O88941	Mannosyl-oligosaccharide glucosidase	Mogs	91.87	726.93286	16
MOSC2_RAT	O88994	Mitochondrial amidoxime reducing component 2	Marc2	38.25	1441.2881	8
MOT1_RAT	P53987	Monocarboxylate transporter 1	Slc16a1	53.24	9277.2	7

MRLCA_RAT	P13832	Myosin regulatory light chain RLC-A	Rlc-a	19.90	2851.8682	7
MSMO1_RAT	O35532	Methylsterol monooxygenase 1	Msmo1	34.96	3108.441	3
MYH10_RAT	Q9JLT0	Myosin heavy chain 10	Myh10	228.97	502.0399	26
MYL6_RAT	Q64119	Myosin light polypeptide 6	Myl6	16.98	12424.145	9
NB5R3_RAT	P20070	NADH-cytochrome b5 reductase 3	Cyb5r3	34.18	2120.4146	7
NCLN_RAT	Q5XIA1	Nicalin	Ncln	62.99	6718.4053	13
NCPR_RAT	P00388	NADPH--cytochrome P450 reductase	Por	76.96	9740.773	30
NCUG1_RAT	Q68FV6	Glycosylated lysosomal membrane protein	Glmp	43.87	517.7008	2
NDUAA_RAT	Q561S0	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 10	Ndufa10	40.49	412.8998	6
NDUF5_RAT	B2GV71	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex assembly factor 5	Ndufaf5	38.23	310.12567	3
NDUS1_RAT	Q66HF1	NADH-ubiquinone oxidoreductase 75 kDa subunit mitochondrial	Ndufs1	79.41	1264.7273	19
NDUS2_RAT	Q641Y2	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2	Ndufs2	52.56	838.103	9
NDUV2_RAT	P19234	NADH dehydrogenase [ubiquinone] flavoprotein 2 mitochondrial	Ndufv2	27.38	2760.076	8
NICA_RAT	Q8CGU6	Nicastrin	Ncstn	78.40	7369.522	12
NPTN_RAT	P97546	Neuroplastin	Nptn	43.93	624.8021	6
NUCB1_RAT	Q63083	Nucleobindin-1	Nucb1	53.51	2050.4395	16
NUCB2_RAT	Q9JI85	Nucleobindin-2	Nucb2	50.09	4984.8174	17
NUCL_RAT	P13383	Nucleolin	Ncl	77.15	3949.7266	21
O89035_RAT	O89035	Solute carrier family 25 member 10	Slc25a10	31.46	1959.6011	10
OCAD1_RAT	Q5XIG4	OCIA domain-containing protein 1	Ociad1	27.66	2874.1665	6
ODO1_RAT	Q5XI78	2-oxoglutarate dehydrogenase complex component E1	Ogdh	116.30	462.29266	18
ODO2_RAT	Q01205	2-oxoglutarate dehydrogenase complex component E2	Dlst	48.93	1009.41	8
ODP2_RAT	P08461	Pyruvate dehydrogenase component E2	Dlat	67.17	1237.4315	15
ODPB_RAT	P49432	Pyruvate dehydrogenase component E1 beta	Pdhb	38.98	3007.9316	11
OGFD3_RAT	Q5M843	2-oxoglutarate and iron-dependent oxygenase domain-containing protein 3	Ogfod3	35.39	1258.4572	6
OS9_RAT	Q5RKH6	Protein OS-9	Os9	75.37	1507.2655	18
OST48_RAT	Q641Y0	Oligosaccharyl transferase 48 kDa subunit	Ddost	48.90	22532.98	17
P2RX4_RAT	P51577	P2X purinoceptor 4	P2rx4	43.50	2251.637	9
P4K2B_RAT	Q5XIL2	Phosphatidylinositol 4-kinase type 2-beta	Pi4k2b	54.46	1195.6467	11
PABP1_RAT	Q9EPH8	Polyadenylate-binding protein 1	Pabpc1	70.70	2639.031	20
PBIP1_RAT	A2VD12	Pre-B-cell leukemia transcription factor-interacting protein 1	Pbxip1	80.28	925.7483	12
PCAT2_RAT	P0C1Q3	Lysophosphatidylcholine acyltransferase 2	Lpcat2	59.83	698.8402	7
PDE3B_RAT	Q63085	Cyclic GMP-inhibited phosphodiesterase B	Pde3b	123.11	821.0266	20
PDIA1_RAT	P04785	Protein disulfide-isomerase	P4hb	56.95	3330.268	18
PDIA3_RAT	P11598	Protein disulfide-isomerase A3	Pdia3	56.62	17165.145	28
PECA1_RAT	Q3SWT0	Platelet endothelial cell adhesion molecule (Pecam1)	Pecam1	76.19	2114.614	16
PGFRB_RAT	Q05030	Platelet-derived growth factor receptor beta	Pdgfrb	122.83	184.1114	6
PGRC1_RAT	P70580	Membrane-associated progesterone receptor component 1	Pgrmc1	21.60	8160.259	11

PGRC2_RAT	Q5XIU9	Membrane-associated progesterone receptor component 2	Pgrmc2	23.40	13782.562	10
PHB_RAT	P67779	Prohibitin	Phb	29.82	39984.395	17
PHB2_RAT	Q5XIH7	Prohibitin 2	Phb2	33.31	23869.629	17
PHOCN_RAT	Q9QYW3	MOB-like protein phocein	Mob4	26.03	2233.6565	6
PIGS_RAT	Q5XI31	GPI transamidase component PIG-S	Pigs	61.72	3193.355	14
PLF4_RAT	P06765	Platelet factor 4	Pf4	11.29	1582.359	2
PLP2_RAT	Q6P742	Proteolipid protein 2	Plp2	16.56	7078.4824	3
PLS1_RAT	P58195	Phospholipid scramblase 1	Plscr1	36.71	11390.705	6
PLS3_RAT	Q6QBQ4	Phospholipid scramblase 3	Plscr3	31.65	754.14386	4
PORED_RAT	Q5RJM1	3-oxo-5-alpha-steroid 4-dehydrogenase 3	Srd5a3	38.09	2307.13	5
PP1A_RAT	P62138	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit	Ppp1ca	37.51	741.3635	10
PPIA_RAT	P10111	Peptidyl-prolyl cis-trans isomerase A	Ppia	17.87	813.9749	11
PPIB_RAT	P24368	Peptidyl-prolyl cis-trans isomerase B	Ppib	23.80	322.5537	5
PRAF3_RAT	Q9ES40	PRA1 family protein 3	Arl6ip5	21.55	2357.312	8
PRDX1_RAT	Q63716	Peroxiredoxin-1	Prdx1	22.11	2065.4648	8
PRDX3_RAT	Q9Z0V6	Thioredoxin-dependent peroxide reductase mitochondrial	Prdx3	28.30	917.41174	6
PROF1_RAT	P62963	Profilin-1	Pfn1	14.96	1022.584	4
PSN1_RAT	P97887	Presenilin-1	Psen1	52.79	409.77258	4
PSN2_RAT	O88777	Presenilin-2	Psen2	50.05	459.7473	4
PTN1_RAT	P20417	Protein-tyrosine phosphatase 1B	Ptpn1	49.67	6730.742	15
PTPRC_RAT	P04157	Receptor-type tyrosine-protein phosphatase C (CD45)	Ptprc	143.27	2727.253	34
Q0R3W9_RAT	Q0R3W9	GTPase, IMAP family member 1	Gimap1	33.31	6332.2266	12
Q2I6B1_RAT	Q2I6B1	V-type proton ATPase subunit A2	Atp6v0a2	98.04	1081.5837	17
Q2I6B2_RAT	Q2I6B2	V-type proton ATPase subunit A1	Atp6v0a1	95.59	10632.083	29
Q2IBC7_RAT	Q2IBC7	Hepatocyte growth factor receptor	Met	153.96	82.4271	1
Q32PX6_RAT	Q32PX6	Rho-related GTP-binding protein RhoG	Rhog	21.31	27716	14
Q3B7V5_RAT	Q3B7V5	Ras-related protein Rab-2b	Rab2b	24.09	12735.811	11
Q3KRC3_RAT	Q3KRC3	Signal recognition particle receptor alpha	Srpra	69.66	2062.8618	11
Q3MHS9_RAT	Q3MHS9	Chaperonin-containing TCP1 subunit 6A	Cct6a	58.02	915.759	10
Q497A2_RAT	Q497A2	Solute carrier family 35 member B2	Slc35b2	47.30	956.06506	5
Q4KM97_RAT	Q4KM97	Tyrosine-protein kinase BLK	Blk	56.65	491.4534	6
Q4QQS6_RAT	Q4QQS6	Dolichyl-phosphate beta-glucosyltransferase	Alg5	36.86	1178.263	8
Q4QQV0_RAT	Q4QQV0	Tubulin beta-6	Tubb6	50.06	3483.87	8
Q4V7D1_RAT	Q4V7D1	Translocon-associated protein subunit alpha	Ssr1	32.21	14023.68	5
Q4V7D9_RAT	Q4V7D9	Acid sphingomyelinase-like phosphodiesterase 3B	Smpdl3b	51.65	9802.894	12
Q4V8N6_RAT	Q4V8N6	Solute carrier organic anion transporter family member 2A1	Slco4a1	77.69	705.52014	9
Q52KJ9_RAT	Q52KJ9	Thioredoxin-related transmembrane protein 1	Tmx1	31.44	2166.8906	6
Q5BJZ3_RAT	Q5BJZ3	Nicotinamide nucleotide transhydrogenase	Nnt	113.87	429.1828	18

Q5EAP4_RAT	Q5EAP4	Guanine nucleotide binding protein alpha-14	Gna14	41.44	3949.9775	14
Q5FVC4_RAT	Q5FVC4	DnaJ (Hsp40) homolog subfamily B member 12	Dnajb12	42.52	1014.84045	9
Q5M7T6_RAT	Q5M7T6	V-type proton ATPase subunit D 1	Atp6v0d1	40.30	9359.584	17
Q5RK10_RAT	Q5RK10	60S ribosomal protein L13a, isoform	Rpl13a	23.45	2532.1545	9
Q5RKJ9_RAT	Q5RKJ9	Ras-related protein Rab-10	Rab10	22.54	28772.68	7
Q5U1Y2_RAT	Q5U1Y2	Ras-related C3 botulinum toxin substrate 2 (Rac2)	Rac2	21.44	26561.215	9
Q5U1Z9_RAT	Q5U1Z9	Metaxin 2	Mtx2	29.72	2446.838	5
Q5U2Z8_RAT	Q5U2Z8	Elongation of very long chain fatty acids protein 1	Elovl1	32.64	784.149	1
Q5U3Z7_RAT	Q5U3Z7	Serine hydroxymethyltransferase	Shmt2	55.77	639.08356	9
Q5VLR5_RAT	Q5VLR5	Endoplasmic reticulum resident protein 44	Erp44	46.88	4631.925	11
Q5XI04_RAT	Q5XI04	Erythrocyte band 7 integral membrane protein	Stom	31.38	1374.209	8
Q5XI34_RAT	Q5XI34	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform	Ppp2r1a	65.32	853.00256	14
Q5XI36_RAT	Q5XI36	CD97	Adgre5	91.14	990.31195	11
Q5XI86_RAT	Q5XI86	Peptidyl-tRNA hydrolase 2	Pthr2	19.53	16233.149	10
Q5XIH3_RAT	Q5XIH3	NADH dehydrogenase [ubiquinone] flavoprotein 1	Ndufv1	50.73	1457.5854	10
Q5XIP2_RAT	Q5XIP2	GPI-anchor transamidase	Pigk	44.89	2760.516	12
Q5XIU4_RAT	Q5XIU4	B-cell receptor-associated protein 29	Bcap29	28.23	662.509	4
Q63116_RAT	Q63116	Mast/stem cell growth factor receptor	Kit	109.34	1779.2214	24
Q63483_RAT	Q63483	Ras-related protein Rab-38	Rab38	23.78	4574.048	6
Q642E3_RAT	Q642E3	CDK5 regulatory subunit-associated protein 3, isoform	Cdk5rap3	57.14	4572.61	16
Q66H18_RAT	Q66H18	Synaptophysin-like 1	Sypl1	28.63	3762.5981	5
Q6AXX5_RAT	Q6AXX5	Retinol dehydrogenase 11	Rdh11	35.12	1461.48	6
Q6AY18_RAT	Q6AY18	GTP-binding protein SAR1a	Sar1a	22.40	1340.813	4
Q6AYD3_RAT	Q6AYD3	Proliferation-associated protein 2G4	Pa2g4	43.66	899.6481	10
Q6AYI1_RAT	Q6AYI1	Probable ATP-dependent RNA helicase DDX5	Ddx5	69.24	1868.138	13
Q6AYM8_RAT	Q6AYM8	Glycosylphosphatidylinositol anchor attachment 1	Gpaa1	67.97	564.3983	7
Q6AYQ9_RAT	Q6AYQ9	Peptidyl-prolyl cis-trans isomerase C	Ppic	23.01	3430.5244	7
Q6IFU9_RAT	Q6IFU9	keratin 16	Krt16	50.78	773.24097	7
Q6IFV6_RAT	Q6IFV6	Keratin 35	Krt35	50.68	1185.366	5
Q6IFZ5_RAT	Q6IFZ5	Keratin, type II cytoskeletal 2 oral	Krt76	61.76	711.88745	12
Q6IN24_RAT	Q6IN24	Galectin-8	Lgals8	36.07	1860.6	10
Q6IRF8_RAT	Q6IRF8	V-type proton ATPase subunit S1	Atp6ap1	51.10	1346.6022	5
Q6MGA3_RAT	Q6MGA3	Antigen peptide transporter 2	Tap2	77.75	14208.09	22
Q6MGB4_RAT	Q6MGB4	H2-K region expressed gene 4, rat orthologue	Slc39a7	49.50	511.51898	4
Q6P3V8_RAT	Q6P3V8	Eukaryotic initiation factor 4A-I	Eif4a1	46.15	1732.11	8
Q6P3V9_RAT	Q6P3V9	60S ribosomal protein L4	Rpl4	47.30	2003.3816	18
Q6P503_RAT	Q6P503	V-type proton ATPase subunit D	Atp6v1d	28.31	1400.0286	7
Q6P685_RAT	Q6P685	Eukaryotic translation initiation factor 2 subunit 2	Eif2s2	38.24	336.0998	8

Q6P9V1_RAT	Q6P9V1	CD81 molecule	Cd81	25.91	3985.6934	4
Q6PCU4_RAT	Q6PCU4	Emerin	Emd	29.59	2569.4375	12
Q6PDV6_RAT	Q6PDV6	40S ribosomal protein S14	LOC100911847	16.27	2446.334	3
Q76GL9_RAT	Q76GL9	Neutral amino acid transporter A	Slc1a4	55.90	2930.5596	7
Q78P65_RAT	Q78P65	Rap2A-like protein	Rap2a	11.95	26551.25	6
Q7TP42_RAT	Q7TP42	Translocation protein SEC62	Sec62	67.93	1620.406	8
Q7TQ86_RAT	Q7TQ86	Ac1158	Rsl1d1	60.96	802.25543	6
Q8SEZ5_RAT	Q8SEZ5	Cytochrome c oxidase subunit 2	Mt-co2	25.93	5020.634	4
Q99JC6_RAT	Q99JC6	Tapasin	Tapbp	50.05	7855.967	11
Q9Z1J7_RAT	Q9Z1J7	Amino acid transporter	Slc1a5	56.76	1423.9875	6
QCR1_RAT	Q68FY0	Cytochrome b-c1 complex subunit 1 mitochondrial	Uqcrc1	52.85	8080.3516	15
QCR2_RAT	P32551	Cytochrome b-c1 complex subunit 2 mitochondrial	Uqcrc2	48.40	7736.858	15
QCR6_RAT	Q5M9I5	Cytochrome b-c1 complex subunit 6 mitochondrial	Uqcrh	10.42	13177.475	4
R9PXR4_RAT	R9PXR4	Mitochondrial import receptor subunit TOM70	Tomm70	61.94	6584.302	21
RAB14_RAT	P61107	Ras-related protein Rab-14	Rab14	23.93	40040.32	16
RAB15_RAT	P35289	Ras-related protein Rab-15	Rab15	24.28	16062.471	5
RAB18_RAT	Q5EB77	Ras-related protein Rab-18	Rab18	22.98	5795.3335	11
RAB1A_RAT	Q6NYB7	Ras-related protein Rab-1a	Rab1A	22.68	65807.23	13
RAB21_RAT	Q6AXT5	Ras-related protein Rab-21	Rab21	24.16	4898.142	9
RAB2A_RAT	P05712	Ras-related protein Rab-2a	Rab2a	23.54	30861.914	15
RAB35_RAT	Q5U316	Ras-related protein Rab-35	Rab35	23.03	9651.083	9
RAB3A_RAT	P63012	Ras-related protein Rab-3a	Rab3a	24.97	4949.498	5
RAB3D_RAT	Q63942	Ras-related protein Rab-3d	Rab3d	24.29	5246.023	7
RAB43_RAT	Q53B90	Ras-related protein Rab-43	Rab43	23.23	4229.5757	6
RAB4B_RAT	P51146	Ras-related protein Rab-4b	Rab4b	23.63	8660.258	10
RAB6A_RAT	Q9WVB1	Ras-related protein Rab-6a	Rab6a	23.59	15014.664	10
RAB7A_RAT	P09527	Ras-related protein Rab-7a	Rab7a	23.50	49333.57	17
RAB8A_RAT	P35280	Ras-related protein Rab-8a	Rab8a	23.67	25169.18	13
RAB8B_RAT	P70550	Ras-related protein Rab-8b	Rab8b	23.60	26870.184	10
RAB9A_RAT	Q99P75	Ras-related protein Rab-9a	Rab9a	22.90	1927.4304	7
RAC1_RAT	Q6RUV5	Ras-related C3 botulinum toxin substrate 1 (Rac1)	Rac1	21.45	12083.035	8
RALA_RAT	P63322	Ras-related protein Ral-A	Rala	23.55	13274.745	8
RAP1A_RAT	P62836	Ras-related protein Rap-1a	Rap1a	20.99	29839.578	13
RAP1B_RAT	Q62636	Ras-related protein Rap-1b	Rap1b	20.80	61852.535	16
RAP2B_RAT	P61227	Ras-related protein Rap-2b	Rap2b	20.50	33133.664	11
RASH_RAT	P20171	GTPase HRas	Hras	21.30	7927.7456	9
RASK_RAT	P08644	GTPase KRas	Kras	21.66	9070.234	12
RASN_RAT	Q04970	GTPase NRas	Nras	21.24	10836.549	12



RB11B_RAT	O35509	Ras-related protein Rab-11b	Rab11b	24.49	20963.8	13
RB27A_RAT	P23640	Ras-related protein Rab-27a	Rab27a	25.07	19213.395	12
RB27B_RAT	Q99P74	Ras-related protein Rab-27b	Rab27b	24.62	18974.406	14
REN_RAT	Q6AXS4	Renin receptor	Atp6ap2	39.08	1127.7795	9
RER1_RAT	Q498C8	Protein RER1	Rer1	22.99	3561.753	6
RGS19_RAT	O70521	Regulator of G-protein signaling 19	Rgs19	24.74	4484.95	7
RHBL4_RAT	Q4V8F3	Rhomboid-related protein 4	Rhbdd1	35.88	757.19183	4
RHOA_RAT	P61589	Transforming protein RhoA	Rhoa	21.78	47836.855	12
RHOB_RAT	P62747	Rho-related GTP-binding protein RhoB	Rhob	22.12	20034.904	6
RL10_RAT	Q6PDV7	60S ribosomal protein L10	Rpl10	24.60	3478.3306	8
RL10A_RAT	P62907	60S ribosomal protein L10a	Rpl10a	24.83	3409.09	6
RL11_RAT	P62914	60S ribosomal protein L11	Rpl11	20.25	3160.7769	4
RL12_RAT	P23358	60S ribosomal protein L12	Rpl12	17.85	8159.423	6
RL13A_RAT	P35427	60S ribosomal protein L13a	Rpl13a	23.48	2532.1545	9
RL14_RAT	Q63507	60S ribosomal protein L14	Rpl14	23.34	4102.905	4
RL17_RAT	P24049	60S ribosomal protein L17	Rpl17	21.40	1644.8086	3
RL18_RAT	P12001	60S ribosomal protein L18	Rpl18	21.66	5652.0596	5
RL18A_RAT	P62718	60S ribosomal protein L18a	Rpl18a	20.73	3227.7095	7
RL19_RAT	P84100	60S ribosomal protein L19	Rpl19	23.47	4241.6533	4
RL23_RAT	P62832	60S ribosomal protein L23	Rpl23	14.87	3088.36	4
RL24_RAT	P83732	60S ribosomal protein L24	Rpl24	17.78	1627.648	2
RL3_RAT	P21531	60S ribosomal protein L3	Rpl3	46.14	1587.5591	13
RL30_RAT	P62890	60S ribosomal protein L30	Rpl30	12.78	11503.277	5
RL40_RAT	P62986	Ubiquitin-60S ribosomal protein L40	Uba52	14.73	35746.945	6
RL7_RAT	P05426	60S ribosomal protein L7	Rpl7	30.33	5262.581	9
RLA0_RAT	P19945	60S acidic ribosomal protein P0	Rplp0	34.22	7699.7544	9
RLA1_RAT	P19944	60S acidic ribosomal protein P1	Rplp1	11.50	55449.68	2
RMD3_RAT	Q66H15	Regulator of microtubule dynamics protein 3	Rmdn3	52.31	2174.5369	8
RPN2_RAT	P25235	Dolichyl-diphosphooligosaccharide protein glycosyltransferase subunit 2	Rpn2	69.08	42825.945	25
RRAGA_RAT	Q63486	Ras-related GTP-binding protein A (Rag A)	Rraga	36.57	1977.4419	7
RS11_RAT	P62282	40S ribosomal protein S11	Rps11	18.43	2837.272	6
RS13_RAT	P62278	40S ribosomal protein S13	Rps13	17.22	6866.343	7
RS15A_RAT	P62246	40S ribosomal protein S15a	Rps15a	14.84	1937.288	5
RS16_RAT	P62250	40S ribosomal protein S16	Rps16	16.45	3674.629	7
RS27A_RAT	P62982	Ubiquitin-40S ribosomal protein S27a	Rps27a	17.95	37445.46	8
RS28_RAT	P62859	40S ribosomal protein S28	Rps28	7.84	3012.5073	2
RS3_RAT	P62909	40S ribosomal protein S3	Rps3	26.67	4638.574	12
RS3A_RAT	P49242	40S ribosomal protein S3a	Rps3a	29.95	3326.7974	12

RS4X_RAT	P62703	40S ribosomal protein S4, X isoform	Rps4x	29.60	1144.8865	10
RS7_RAT	P62083	40S ribosomal protein S7	Rps7	22.13	3930.561	5
RS8_RAT	P62243	40S ribosomal protein S8	Rps8	24.21	8867.166	10
RSSA_RAT	P38983	40S ribosomal protein SA	Rpsa	32.82	2309.031	7
RTN4_RAT	Q9JK11	Reticulon-4	Rtn4	126.39	1037.768	14
S38A2_RAT	Q9JHE5	Sodium-coupled neutral amino acid transporter 2	Slc38a2	55.55	4436.6104	5
S61A1_RAT	P61621	SEC61 alpha-1	Sec61a1	52.27	5403.4395	9
SAC1_RAT	Q9ES21	Phosphatidylinositide phosphatase SAC1	Sacm1l	67.04	1569.263	19
SAM50_RAT	Q6AXV4	Sorting and assembly machinery component 50 homolog	Samm50	51.96	1186.929	14
SAP_RAT	P10960	Prosaposin	Psap	61.12	276.0468	9
SARAF_RAT	Q6AYN2	Store-operated calcium entry-associated regulatory factor (SARAF)	Saraf	35.89	972.8738	4
SC11A_RAT	P42667	SEC11 homolog A	Sec11a	20.60	12103.855	10
SC11C_RAT	Q9WTR7	SEC11 homolog C	Sec11c	21.65	4794.677	6
SC22B_RAT	Q4KM74	Vesicle-trafficking protein SEC22b	Sec22b	24.74	34632.867	14
SCFD1_RAT	Q62991	Syntaxin-binding protein 1-like 2	Scfd1	72.26	1780.61	11
SCRB2_RAT	P27615	Lysosome membrane protein 2 (CD36)	Scarb2	54.09	2124.119	9
SELT_RAT	Q1H5H1	Thioredoxin reductase-like selenoprotein T	Selenot	22.29	4981.218	5
SFXN1_RAT	Q63965	Sideroflexin-1	Sfxn1	35.55	12449.84	10
SGPL1_RAT	Q8CHN6	Sphingosine-1-phosphate lyase 1	Sgpl1	63.76	1971.3015	8
SIA4C_RAT	P61131	Beta-galactoside alpha-2,3-sialyltransferase 4	St3gal4	38.04	1940.3485	11
SNAA_RAT	P54921	Alpha-soluble NSF attachment protein (SNAP-alpha)	Napa	33.19	20788.06	18
SND1_RAT	Q66X93	Staphylococcal nuclease domain-containing protein 1	Snd1	101.95	557.89636	20
SNG1_RAT	Q62876	Synaptogyrin-1	Syngr1	25.67	1934.197	2
SNG2_RAT	O54980	Synaptogyrin-2	Syngr2	24.71	1547.865	2
SNP23_RAT	O70377	Synaptosomal-associated protein 23 (SNAP-23)	Snap23	23.24	44422.52	12
SO4A1_RAT	Q99N01	Organic anion-transporting polypeptide E	Slco4a1	77.63	725.4213	10
SPNS1_RAT	Q2YDU8	Protein spinster homolog 1	Spns1	56.80	857.2124	5
SQSTM_RAT	O08623	Sequestosome-1	Sqstm1	47.68	660.8219	7
SRPRB_RAT	Q4FZX7	Signal recognition particle receptor beta	Srprb	29.57	5558.2905	13
SSRD_RAT	Q07984	Translocon-associated protein subunit delta	Ssr4	18.98	36080.1	8
STIM1_RAT	P84903	Stromal interaction molecule 1 (STIM1)	Stim1	77.45	3978.3716	21
STML2_RAT	Q4FZT0	Stomatin-like protein 2	Stoml2	38.41	4983.7925	13
STRN3_RAT	P58405	Striatin-3	Strn3	87.11	330.0479	8
STX12_RAT	G3V7P1	Syntaxin-12	Stx12	31.19	24137.426	11
STX3_RAT	Q08849	Syntaxin-3	Stx3	33.26	3255.2964	8
STX5_RAT	Q08851	Syntaxin-5	Stx5	39.75	1804.198	10
STX6_RAT	Q63635	Syntaxin-6	Stx6	29.06	1157.439	6
STX7_RAT	O70257	Syntaxin-7	Stx7	29.85	13255.42	9

STX8_RAT	Q9Z2Q7	Syntaxin-8	Stx8	26.91	2008.0415	6
STXB2_RAT	Q62753	Syntaxin-binding protein 2	Stxbp2	66.70	3765.574	24
STXB5_RAT	Q9WU70	Syntaxin-binding protein 5	Stxbp5	127.66	825.01843	14
SYVC_RAT	Q04462	Valine--tRNA ligase	Vars	140.37	315.0938	21
T106B_RAT	Q6AYA5	Transmembrane protein 106 B	Tmem106b	31.15	766.6193	5
T120A_RAT	Q5HZE2	Transmembrane protein 120 A	Tmem120a	40.66	2023.4355	8
TAP1_RAT	P36370	Antigen peptide transporter 1	Tap1	79.15	7183.5654	22
TAXB1_RAT	Q66HA4	Tax1-binding protein 1 homolog	Tax1bp1	93.20	1382.8915	20
TBA1B_RAT	Q6P9V9	Tubulin alpha-1B	Tuba1b	50.15	21971.31	18
TBA1C_RAT	Q6AYZ1	Tubulin alpha-1C	Tuba1c	49.94	19631.385	17
TBA4A_RAT	Q5XIF6	Tubulin alpha-4A	Tuba4a	49.92	9072.143	16
TBA8_RAT	Q6AY56	Tubulin alpha-8	Tuba8	50.04	5823.075	14
TBB4B_RAT	Q6P9T8	Tubulin beta-4B	Tubb4b	49.80	825.013	6
TBB5_RAT	P69897	Tubulin beta-5	Tubb5	49.67	10868.01	17
TCPB_RAT	Q5XIM9	T-complex protein 1 beta	Cct2	57.46	490.99457	8
TCPE_RAT	Q68FQ0	T-complex protein 1 epsilon	Cct5	59.54	848.6412	9
TECR_RAT	Q64232	Very-long-chain enoyl-CoA reductase	Tecr	36.12	2042.097	13
TERA_RAT	P46462	Transitional endoplasmic reticulum ATPase	Vcp	89.35	9863.038	37
TGON3_RAT	P19814	Trans-Golgi network integral membrane protein TGN38	Ttgn1	38.31	1215.6049	6
THY1_RAT	P01830	Thy-1 membrane glycoprotein	Thy1	18.17	46873.016	8
TKT_RAT	P50137	Transketolase	Tkt	67.64	1239.818	14
TM109_RAT	Q6AYQ4	Transmembrane protein 109	Tmem109	26.24	851.1362	1
TM165_RAT	Q4V899	Transmembrane protein 165	Tmem165	34.81	17560.244	6
TM168_RAT	Q5PQM0	Transmembrane protein 168	Tmem168	79.77	3365.133	12
TM38B_RAT	Q68FV1	Trimeric intracellular cation channel type B (TRIC-B)	Tmem38b	32.45	2604.358	6
TM55A_RAT	Q4V888	Type 2 phosphatidylinositol 4,5-bisphosphate 4-phosphatase	Pip4p2	28.02	5976.5205	8
TM7S3_RAT	Q5FVF4	Transmembrane 7 superfamily member 3	Tm7sf3	63.59	1565.8905	6
TM9S1_RAT	Q66HF2	Transmembrane 9 superfamily member 1	Tm9sf1	66.92	840.3792	14
TM9S2_RAT	Q66HG5	Transmembrane 9 superfamily member 2	Tm9sf2	75.59	5912.821	13
TM9S4_RAT	Q4KLL4	Transmembrane 9 superfamily member 4	Tm9sf4	74.68	4822.549	19
TMCO1_RAT	Q5I0H4	Calcium load-activated calcium channel (CLAC channel)	Tmco1	21.18	2068.694	3
TMED1_RAT	Q5BK85	Transmembrane emp24 domain-containing protein 1	Tmed1	25.21	1818.857	5
TMED2_RAT	Q63524	Transmembrane emp24 domain-containing protein 2	Tmed2	22.73	10404.914	7
TMED5_RAT	Q6AXN3	Transmembrane emp24 domain-containing protein 5	Tmed5	26.14	4953.7896	8
TMED7_RAT	D3ZTX0	Transmembrane emp24 domain-containing protein 7	Tmed7	25.48	13459.775	9
TMED9_RAT	Q5I0E7	Transmembrane emp24 domain-containing protein 9	Tmed9	27.03	23465.781	9
TMEDA_RAT	Q63584	Transmembrane emp24 domain-containing protein 10	Tmed10	24.86	35308.4	12
TMM43_RAT	Q5XIP9	Transmembrane protein 43 (Protein LUMA)	Tmem43	44.77	969.2106	9

TMX2_RAT	Q5XIK2	Thioredoxin-related transmembrane protein 2	Tmx2	33.87	2550.555	7
TOIP1_RAT	Q5PQX1	Torsin-1A-interacting protein 1	Tor1aip1	65.65	2439.1387	13
TOM22_RAT	Q75Q41	Mitochondrial import receptor subunit TOM22 homolog	Tomm22	15.49	5316.167	5
TPM3_RAT	Q63610	Tropomyosin alpha-3	Tpm3	29.01	158.7291	3
TPM4_RAT	P09495	Tropomyosin alpha-4	Tpm4	28.51	372.3383	7
TRAM1_RAT	Q5XI41	Translocating chain-associated membrane protein 1	Tram1	43.03	493.56726	3
TRPV2_RAT	Q9WUD2	Transient receptor potential cation channel subfamily V member 2 (TRPV2)	Trpv2	86.71	2500.0945	16
TRY1_RAT	P00762	Anionic trypsin-1	Prss1	25.96	2475.5454	1
TXTP_RAT	P32089	Citrate transport protein	Slc25a1	33.84	951.4356	7
UBXN4_RAT	Q5HZY0	Erasin	Ubxn4	56.39	1303.3049	8
UCRI_RAT	P20788	Cytochrome b-c1 complex subunit Rieske	Uqcrfs1	29.45	3786.0586	7
UFL1_RAT	B2GV24	E3 UFM1-protein ligase 1	Ufl1	89.59	2064.419	22
VAMP3_RAT	P63025	VAMP3	Vamp3	11.48	23798.4	6
VAMP5_RAT	Q9Z2J5	VAMP5	Vamp5	11.50	7016.9023	2
VAMP7_RAT	Q9JHW5	VAMP7	Vamp7	24.78	1283.94	6
VAPA_RAT	Q9Z270	VAMP-associated protein A	Vapa	27.84	20269	12
VAPB_RAT	Q9Z269	VAMP-associated protein B	Vapb	26.92	19280.703	9
VATB2_RAT	P62815	V-type proton ATPase subunit B	Atp6v1b2	56.55	5370.288	20
VATE1_RAT	Q6PCU2	V-type proton ATPase subunit E 1	Atp6v1e1	26.13	3807.996	7
VATF_RAT	P50408	V-type proton ATPase subunit F	Atp6v1f	13.37	5433.4697	6
VDAC1_RAT	Q9Z2L0	Voltage-dependent anion-selective channel protein 1	Vdac1	30.76	31697.959	16
VDAC2_RAT	P81155	Voltage-dependent anion-selective channel protein 2	Vdac2	31.75	30921.11	15
VDAC3_RAT	Q9R1Z0	Voltage-dependent anion-selective channel protein 3	Vdac3	30.80	21432.629	16
VEZA_RAT	Q5XI52	Vezatin	Vezt	88.69	599.8607	7
VGFR2_RAT	O08775	Vascular endothelial growth factor receptor 2	Kdr	150.39	151.32126	2
VKOR1_RAT	Q6TEK4	Vitamin K epoxide reductase complex subunit 1	Vkorc1	17.78	3224.8171	1
VMAT2_RAT	Q01827	Vesicular amine transporter 2	Slc18a2	55.69	1077.7045	3
VMP1_RAT	Q91ZQ0	Vacuole membrane protein 1	Vmp1	45.90	1842.7786	2
VWA5A_RAT	Q75WE7	Von Willebrand factor A domain-containing protein 5A	Vwa5a	91.48	857.0407	12
YES_RAT	F1LM93	Tyrosine-protein kinase Yes	Yes1	60.61	13521.72	22
YIF1B_RAT	Q6PEC3	Protein YIF1B	Yif1b	28.42	2773.6765	2
YIPF4_RAT	Q5M7T4	Protein YIPF4	Yipf4	27.28	1942.5706	2
YIPF5_RAT	Q5XID0	Protein YIPF5	Yipf5	27.90	1374.8135	2
YMEL1_RAT	Q925S8	ATP-dependent zinc metalloprotease YME1L1	Yme1l1	79.87	1352.321	18
ZNT1_RAT	Q62720	Zinc transporter 1	Slc30a1	55.14	290.3024	4
ZW10_RAT	Q4V8C2	Centromere/kinetochore protein zw10 homolog	Zw10	87.97	548.4421	16

Header line description of worksheets	
Method	Protein identification with which Method
Protein ID	Protein identification of UniProt
Protein accession	Protein accession number of UniProt
Protein description	Protein functional description
Gene name	Indicates the name of the gene that code for the protein sequence
MW [kDa]	Protein molecular weight ,unit [kDa]
Score AVG	A simple rule to be used to judge whether a result is significant or not
Peptides AVG	Number of peptides whitch spectrum hit