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Table S1

No.	Table 1 Putative Palmtoylated Proteins from adipose tissues	Access No.	*Implicated in Glut4 trafficking
	SIGNAI TRANSDUCTION		
1	Protein kinaseas	Access No.	
2	AMPK alpha-1	NP_001013385.3	
3	CAMKII delta	AAH52894.1	
4	diacylglycerol kinase epsilon	Q9R1C6.1	
5	Discoidin domain-containing receptor	Q62371.2	
6	integrin-linked kinase	O55222.2	x
7	MAPK1	P63085.3	
8	ribose-phosphate pyrophosphokinase 1	NP_067438.1	
9	mTOR	Q9JLN9.2	
10	phosphatidylinositol 4-kinase type 2-alpha	NP_663476.1	x
11	phosphatidylinositol 4-kinase type 2-beta isoform 1	NP_080227.2	x
12	PKA type II-beta regulatory subunit	NP_035288.2	
13	PKA type II-alpha regulatory subunit	NP_032950.1	
14	Rho-associated protein kinase 2	P70336.1	
15	Rsk90-1	P18653.1	
16	Rsk90-2	P18654.2	
17	serine/threonine-protein kinase 16	O88697.3	
18	tyrosine-protein kinase JAK1	NP_666257.2	
19	tyrosine-protein kinase Lyn	P25911.4	
20	tyrosine-protein kinase Yes1	NP_033561.1	
21	Protein phosphatase		
22	phosphatidylinositide phosphatase SAC1	Q9EP69.1	
23	Inositol (myo)-1(or 4)-monophosphatase 1	O55023.1	
24	CTD small phosphatase 1	AAH49184.1	
25	CTD small phosphatase 2	Q8BX07.1	

26	inorganic pyrophosphatase 1	NP_080714.2	
27	inorganic pyrophosphatase 2, mitochondrial precursor	NP_666253.1	
28	inositol polyphosphate-5-phosphatase A	NP_001120835.1	
29	PP 2A 65 kDa regulatory subunit A beta	NP_082890.2	
30	PP 2A regulatory subunit B (PR 53)	CAM23293.1	
31	PP2 2, regulatory subunit B (B56), delta	AAH10716.	
32	PP2A 55 kDa regulatory subunit B alpha	NP_082308.1	
33	PP2A 65 kDa regulatory subunit A alpha	NP_058587.1	
34	protein phosphatase 1A	NP_032936.1	
35	SHP2	NP_035331.3	
	GTPase protien		
1	H-RAS	Q61411.2	
2	GTP-binding nuclear protein Ran, testis-specific isoform	Q61820.1	
3	GTP-binding protein SAR1a	NP_033146.1	
4	guanine nucleotide binding protein (G protein), beta polypeptide 2 like 1	P68040.3	
5	Guanine nucleotide binding protein, alpha 11	AAH11169.1	
6	Guanine nucleotide binding protein, alpha 13	AAH57665.1	
7	Guanine nucleotide binding protein, alpha 14	NP_032163.3	
8	Guanine nucleotide binding protein, alpha q	AAH57583.1	
9	guanine nucleotide binding protein, alpha stimulating complex	AAH80816.1	
10	guanine nucleotide-binding protein G(i) subunit alpha-2	P08752.5	
11	guanine nucleotide-binding protein G(k) subunit alpha	NP_034436.1	
12	guanine nucleotide-binding protein G(o) subunit alpha	NP_001106855.1	
13	R-Ras	NP_033127.1	
14	R-Ras2	P62071.1	x
15	IQ GAP 1	AAF60344.1	x
16	IQ GAP 3	AAI51103.1	
17	rab GDP dissociation inhibitor alpha	NP_034403.1	
18	rab GDP dissociation inhibitor beta	NP_032138.3	

19	**Rab-1**	**NP_033022.1**	**x**
20	**Rab-14**	**NP_080973.1**	
21	**Rab-18**	**P35293.2**	
22	**Rab-1b**	**NP_083852.1**	
23	**Rab-2a**	**NP_067493.1**	
24	**Rab-34**	**NP_258436.2**	
25	**Rab-35**	**BAF02893.1**	
26	**Rab-5a**	**NP_080163.1**	
27	**Rab-5b**	**AAI37576.1**	
28	**Rab-5c**	**AAH29678.1**	
29	**Rab-7**		
30	**Ran-specific GTPase-activating protein**	**P34022.2**	
31	**ras-related C3 botulinum toxin substrate 1**	**NP_033033.1**	
32	**ras-related GTP-binding protein D**	**NP_081767.2**	
33	**Ral-A**	**NP_062364.3**	
34	**Ral-B**	**NP_071722.1**	
35	**Rap-2a**	**NP_083795.2**	
36	**Rap-2b**	**NP_082988.1**	
37	**Rap-2c**	**NP_766001.1**	
38	**GTP-binding protein 9**	**Q9CZ30.1**	
39	**K-RAS**	**P32883.1**	
	CELL STRUCTURAL PROTEIN		
1	**Cytoskeleton proteins**		
2	**actin, alpha skeletal muscle**	**NP_033736.1**	
3	**actin, cytoplasmic 1**	**NP_031419.1**	
4	**actin, cytoplasmic 2**	**NP_033739.1**	
5	**actin-related protein 2**	**NP_666355.1**	
6	**alpha-actinin-4**	**NP_068695.1**	
7	**annexin A2**	**NP_031611.1**	

8	annexin A4	P97429.4	
9	annexin A5	NP_033803.1	
10	annexin A6	NP_038500.2	
11	ARP3 actin-related protein 3	NP_001192315.1	
12	calnexin	NP_001103970.1	
13	Catenin (cadherin associated protein), delta 1	P30999.2	
14	cathepsin B	P10605.2	
15	cathepsin L1	P06797.2	
16	cathepsin Z	AAF13144.1	
17	cathepsin Z	AAF13144.1	
18	contactin-associated protein 1	O54991.2	
19	contactin-associated protein 1	O54991.2	
20	Cytoplasmic dynein heavy chain 1	Q9JHU4.2	
21	Cytoskeleton-associated protein 4	Q8BMK4.2	
22	Dynamin 1-like	AAH85843.1	
23	Dysferlin (Dystrophy-associated fer-1-like protein)	Q9ESD7.3	
24	F-actin-capping protein subunit alpha-2	NP_031630.1	
25	F-actin-capping protein subunit beta	P47757.3	
26	Fascin (actin bunding protein)	NP_032010.2	
27	filamin-A	NP_034357.2	
28	filamin-B	NP_598841.1	
29	FYVE and coiled-coil domain-containing protein 1	NP_001103723.1	
30	Gelsolin	AAH23143.	x
31	Gelsolin	AAH23143.	
32	Kif5B	Q61768.3	
33	Metadherin (protein LYRIC)	Q80WJ7.1	
34	myoferlin	P35918.1	
35	myosin, heavy polypeptide 10, non-muscle (myosin 10)	Q61879.2	
36	myosin-11	O08638.1	
37	myosin-9	Q8VDD5.4	x

38	**myosin-Ib**	**P46735.3**	
39	**myosin-Ic**	**Q9WTI7.2**	
40	**neural cell adhesion molecule 1 (N-Cam1, CD56)**	**P13595.3**	
41	**Neuropilin 1**	**P97333.2**	**x**
42	**phosphatidylinositol-binding clathrin assembly protein**	**NP_666306.2**	
43	**plastin-3**	**Q99K51.3**	
44	**presenilin-1**	**P49769.1**	
45	**protein furry homolog-like**	**NP_082470.2**	
46	**talin 1 (Focal adhesion protein)**	**NP_035732.2**	
47	**talin 2**	**Q71LX4.3**	
48	**tubulin alpha-1A**	**P68369.1**	
49	**tubulin beta-2B**	**Q9CWF2.1**	
50	**Tubulin, beta 4**	**Q9D6F9.3**	
51	**Tubulin, beta 5**	**P99024.1**	**x**
52	**utrophin**	**NP_035812.3**	
53	**Vimentin**	**NP_035831.2**	
54	**vinculin**	**Q64727.4**	
55	**endophilin-B1 (SH3-domain GRB2-like B1)**	**Q9JK48.1**	
56	**Chaperone proteins**		
57	**chaperonin containing T-complex protein 1 subunit beta , subunit 2**	**P80314.4**	
58	**chaperonin containing T-complex protein 1 subunit delta**	**P80315.3**	
59	**chaperonin containing T-complex protein 1 subunit epsilon**	**P80316.1**	
60	**chaperonin containing T-complex protein 1 subunit zeta**	**P80317.3**	
61	**chaperonin containing T-complex protein 1 subunit theta**	**P42932.3**	
62	**DnaJ (Hsp40) homolog, subfamily C, member 11**	**NP_766292.2**	
63	**DnaJ (Hsp40) homolog, subfamily C, member 13**		
64	**DnaJ (Hsp40) homolog, subfamily C, member 5**	**P60904.1**	
65	**DnaJ (Hsp40) homolog, subfamily C, member 7**		
66	**Heat shock protein 90, alpha (cytosolic), class A member 1**	**P07901.4**	
67	**Heat shock protein 90 alpha (cytosolic), class B member 1**	**P11499.3**	

68	**Heat shock protein 90, beta (Grp94), member 1**	**P08113.2**	
69	**heat shock 70 kDa protein 1-like**	**P16627.4**	
70	**heat shock protein 4**	**Q61316.1**	
71	**heat shock protein 5 (Glucose regulated protein 70kD)**	**P20029.3**	
72	**heat shock protein 8**	**P63017.1**	
73	**heat shock protein 9 (mitochondrial)**	**P38647.2**	
74	**60 kDa heat shock protein, mitochondrial**	**P63038.1**	
	Membrane associated proteins		**x**
	adipocyte plasma membrane-associated protein	**NP_082253.1**	**x**
1	**Caveolin 1, caveolae protein**	**P49817.1**	
2	**Caveolin 2, caveolae protein**	**NP_058596.1**	
3	**CDC151**	**O35566.2**	
4	**CD36 antigen**	**P41731.2**	
5	**CD3-epsilon-associated protein**	**O15446.1**	
6	**CD44 antigen (Extracellular matrix receptor III)**	**P15379.3**	
7	**CD63 antigen**	**NP_001036045.1**	
8	**CD81**	**P35762.1**	**x**
9	**Chromaffin granule amine transporter**	**Q8R090.1**	**x**
10	**flotillin 1**	**NP_032053.1**	
11	**flotillin 2**	**NP_001035493.1**	
12	**Golgi integral membrane protein 4**	**Q8BXA1.1**	
13	**integral membrane protein 2b**	**O89051.1**	
14	**integrin alpha 6**	**Q61739.3**	
15	**Integrin alpha FG-GAP repeat containing 2**	**NP_598688.1**	
16	**lysosome membrane protein 2**	**O35114.3**	
17	**membrane-associated progesterone receptor component 1**	**NP_058063.2**	
18	**Membrane-associated progesterone receptor component 2**	**Q80UU9.2**	
19	**mitochondrial carrier homolog 1**	**AAH27274.**	
20	**mitochondrial carrier homolog 2**	**NP_062732.1**	
21	**mitochondrial import inner membrane translocase subunit TIM50**	**9D880.1**	

22	**mitochondrial import receptor subunit TOM70**	**NP_613065.2**	
23	**Neuropilin 1**	**P97333.2**	
24	**palmitoylated membrane protein 5**	**CAX15594.1**	
25	**palmitoylated membrane protein 6**	**AAI45365.1**	
26	**perilipin-4 (plasma membrane associated protein)**	**O88492.2**	
27	**peroxisomal membrane protein 11B**	**Q9Z210.1**	**x**
28	**peroxisomal membrane protein 11C**	**Q6P6M5.2**	
29	**presenilin-1**	**P49769.1**	
30	**SID1 transmembrane family member 2**	**Q8CIF6.1**	
31	**sideroflexin-1**	**NP_081600.1**	**x**
32	**sideroflexin-3**	**Q91V61.1**	
33	**syntaxin 6**	**Q9JKK1.1**	**x**
34	**syntaxin 8**	**O70439.3**	
35	**syntaxin binding protein 3A (munc18c)**	**Q60770.1**	
36	**syntaxin12**	**Q9ER00.1**	
37	**tranmebrane protein 115**	**NP_062678.1**	
38	**tranmebrane protein 120a**	**NP_766129.1**	
39	**tranmebrane protein 120b**	**NP_001034812.1**	
40	**tranmebrane protein 134**	**NP_001072117.1**	
41	**tranmebrane protein 168**	**NP_083266.1**	
42	**tranmebrane protein 33**	**NP_084384.1**	
43	**tranmebrane protein 38b**	**NP_082329.1**	
44	**tranmebrane protein 55a**	**NP_082540.1**	
45	**tranmebrane protein 55b**	**NP_001028443.1**	
46	**tranmebrane protein 63a**	**NP_659043.1**	
47	**tranmebrane protein87a**	**NP_776095.2**	
48	**transitional endoplasmic reticulum ATPase**	**Q01853.4**	
49	**transmembrane anterior posterior transformation protein 1**	**Q4VBD2.2**	
50	**transmembrane emp24 domain-containing protein 1**	**NP_034874.2**	**x**
51	**tubulin-specific chaperone D**	**Q8BYA0.1**	

52	vesicle-associated membrane protein 7	NP_035645.1	
53	Erythrocyte band 7 integral membrane protein (Stomatin)	P54116.3	x
54	Reticulon-3	Q9ES97.2	
55	synaptosomal-associated protein 23	NP_001171263.1	
56	N-ethylmaleimide sensitive fusion protein attachment protein alpha	Q9DB05.1	
57	neuroblastoma-amplified protein (ER protein)	NP_081982.1	
	Transporter		
1	adenosine 3'-phospho 5'-phosphosulfate transporter 1	NP_082938.1	
2	ADP/ATP translocase 1	NP_031476.3	
3	ADP/ATP translocase 2	NP_031477.1	
4	ataxin 10	P28658.2	
5	ATP synthase subunit alpha, mitochondrial precursor	P_031531.1	
6	ATP synthase subunit beta, mitochondrial precursor	NP_058054.2	
7	ATP synthase subunit O, mitochondrial precursor	NP_613063.1	
8	ATP synthase, H+ transporting, mitochondrial F1 complex, gamma	CAM13922.1	
9	ATPase, class II, type 9A	CAM15667.1	
10	ATP-binding cassette sub-family A member 1	NP_038482.3	
11	ATP-binding cassette sub-family D member 3	P_033017.2	
12	ATP-binding cassette sub-family E member 1	NP_056566.2	
13	ATP-binding cassette sub-family G member 2	NP_036050.1	
14	ATP-binding cassette, sub-family C (CFTR/MRP), member 10	AAI50819.1	
15	ATP-binding cassette, sub-family C (CFTR/MRP), member 4 isoform 3	NP_001157148.1	
16	Chloride intracellular channel protein 1	Q9Z1Q5.3	
17	Chromaffin granule amine transporter	Q8R090.1	
18	copper-transporting ATPase 1 isoform 1	NP_001103227.1	
19	exportin 1	Q6P5F9.1	
20	exportin 2	Q9ERK4.1	x
21	Glut1	P17809.4	
22	Glut4	P14142.3	
23	H(+)/Cl(-) exchange transporter 7 (Chloride channel protein 7)	O70496.1	

24	**importin 7**	**NP_852658.2**	
25	**importin 9**	**AAH98508.1**	
26	**importin-5**	**NP_076068.1**	
27	**Karyopherin (importin) beta 1**	**P70168.2**	
28	**long-chain fatty acid transport protein 1**	**NP_036107.1**	
29	**loride intracellular channel protein 4**	**Q9QYB1.3**	**x**
30	**loride intracellular channel protein 4**	**Q9QYB1.3**	**x**
31	**metal transporter CNNM2 (Cyclin-M2)**	**Q3TWN3.3**	**x**
32	**metal transporter CNNM2 (Cyclin-M2)**	**Q3TWN3.3**	**x**
33	**mitochondrial glutamate carrier 1**	**NP_001171047.1**	
34	**mitochondrial import inner membrane translocase subunit TIM50**	**9D880.1**	
35	**neutral amino acid transporter B(0)**	**NP_033227.2**	**x**
36	**phosphate carrier protein, mitochondrial**	**NP_598429.1**	
37	**phosphatidylinositol transfer protein, beta**	**P53811.2**	
38	**sarcoplasmic/endoplasmic reticulum calcium ATPase 1**	**NP_031530.2**	
39	**sarcoplasmic/endoplasmic reticulum calcium ATPase 2**	**NP_033852.1**	
40	**sodium/hydrogen exchanger 1**	**NP_058677.1**	
41	**sodium/myo-inositol cotransporter**	**NP_059087.2**	
42	**sodium-dependent multivitamin transporter**	**NP_001171093.1**	**x**
43	**sodium-independent sulfate anion transporter**	**NP_848858.2**	
44	**Solute carrier family 25 (mitochondrial carrier, citrate transporter)**	**NP_694790.1**	
45	**mitochondrial carrier, dicarboxylate transporter, member 10**	**CAM27052.1**	
46	**mitochondrial carrier; oxoglutarate carrier, member 11**	**NP_077173.1**	
47	**sodium/hydrogen exchanger, isoform 6**	**NP_766368.2**	
48	**Transferrin receptor**	**Q62351.1**	
49	**transportin-2**	**NP_001116315.1**	
50	**transportin-3**	**NP_796270.2**	
51	**voltage-dependent anion channel 1**	**Q60932.3**	
52	**voltage-dependent anion channel 2**	**Q60930.2**	
53	**voltage-dependent anion channel 3**	**Q60931.1**	**x**

54	V-type proton ATPase 116 kDa subunit a isoform 1 isoform 4	CAM19438.1	
55	V-type proton ATPase 116 kDa subunit a isoform 2	NP_035726.2	
56	V-type proton ATPase catalytic subunit A	NP_031534.2	x
57	VESICLE TRAFFICKING		x
58	AP-1 complex subunit gamma-1	NP_033807.2	
59	Adaptor protein complex AP-2 mu1	AAH94510.1	
60	Adaptor protein complex AP-2, alpha 1 subunit	NP_031484.1	x
61	TBC1D4 (AS160)	Q8BYJ6.2	
62	Adaptor protein complex AP-2, beta1 subunit	NP_001030931.1	
63	Coatomer subunit alpha	Q8CIE6.2	
64	coatomer subunit beta 1	Q9JIF7.1	
65	coatomer subunit beta 2	O55029.2	
66	coatomer subunit epsilon	O89079.3	
67	coatomer subunit gamma isoform 1	AAH08553.1	
68	perilipin-4 (plasma membrane associated protein)	O88492.2	x
69	plastin-3	Q99K51.3	
70	plectin 1	NP_958791.2	
71	presenilin-1	P49769.1	
72	protein transport protein Sec23B	NP_001239474.1	x
73	protein transport protein Sec31A	NP_081245.1	
74	SAM domain and HD domain, 1	Q60710.2	
75	Scavenger receptor class B, member 1	NP_058021.1	
76	COPII coat assembly protein- protein transporter)	CAM20308.1	
77	Sec24 related gene family, member C	AAH40370.1	
78	Sec24 related gene family, member D	AAH67020.1	
79	secretory carrier-associated membrane protein 1	NP_083429.1	
80	secretory carrier-associated membrane protein 2		
81	secretory carrier-associated membrane protein 3		x
82	secretory carrier-associated membrane protein 4		
83	Sortilin 1 (Neurotensin receptor 3)	Q6PHU5.1	

84	sorting and assembly machinery component 50 homolog	NP_848729.1	
85	spectrin alpha chain, brain isoform 2	P16546.4	
86	spectrin beta 2	Q62261.2	
87	vacuolar protein sorting-associated protein 13C	Q8BX70.2	
88	vacuolar protein sorting-associated protein 35	Q9EQH3.1	x
89	vesicle transport through interaction with t-SNAREs homolog 1B	O88384.1	
90	vesicle-associated membrane protein 7	NP_035645.1	
91	vesicle-trafficking protein SEC22b	NP_035472.1	
92	epididymal secretory protein E1	NP_075898.1	
93	immunity-related GTPase M protein 1	Q60766.1	
	PROTEIN DEGRADATION		
1	26S protease regulatory subunit 7	NP_035318.1	
2	26S protease regulatory subunit 8	NP_032976.1	
3	26S proteasome non-ATPase regulatory subunit 1	NP_081633.1	
4	26S proteasome non-ATPase regulatory subunit 13	NP_036005.1	
5	26S proteasome non-ATPase regulatory subunit 14	NP_067501.2	
6	26S proteasome non-ATPase regulatory subunit 2	NP_598862.1	
7	26S proteasome non-ATPase regulatory subunit 3	NP_033465.1	
8	26S proteasome non-ATPase regulatory subunit 4	NP_032977.1	
9	26S proteasome non-ATPase regulatory subunit 5	NP_542121.2	
10	E3 ubiquitin-protein ligase NEDD4	P46935.3	
11	E3 ubiquitin-protein ligase UBR4	NP_001153791.1	
12	hect domain and RCC1-like domain 1	NP_663592.3	
13	HECT, UBA and WWE domain containing 1	NP_067498.4	
14	NEDD8-conjugating enzyme	Q8C878.2	
15	probable E3 ubiquitin-protein ligase HERC4 isoform 1	NP_084390.1	
16	proteasome activator complex subunit 2	NP_035320.1	
17	proteasome activator complex subunit 4	NP_598774.2	
18	proteasome subunit alpha type-1	NP_036095.1	

19	**proteasome subunit alpha type-3**	**NP_035314.3**	
20	**proteasome subunit alpha type-6**	**NP_036098.1**	
21	**proteasome subunit beta type-1**	**NP_035315.1**	
22	**proteasome subunit beta type-2**	**NP_036100.3**	
23	**proteasome subunit beta type-3**	**NP_036101.1**	
24	**proteasome subunit beta type-5**	**NP_035316.1**	
25	**sequestosome-1 (ubiquitin binding protein p62)**	**Q64337.1**	
26	**SUMO-activating enzyme subunit 2**	**Q9Z1F9.1**	
27	**Ubiquinol-cytochrome c reductase, Rieske iron-sulfur 1**	**Q9CR68.1**	
28	**ubiquitin carboxyl-terminal hydrolase 4**	**P35123.3**	
29	**ubiquitin carboxyl-terminal hydrolase 4 (thiolesterase)**	**P35123.3**	
30	**ubiquitin c-terminal hydrolase isozyme L4**	**P58321.1**	
31	**Ubiquitin protein ligase E3A**	**O08759.1**	
32	**Ubiquitin specific peptidase 19**	**Q3UJD6.1**	
33	**Ubiquitin specific peptidase 5 (isopeptidase T)**	**P56399.1**	
34	**ubiquitin specific peptidase 9, X chromosome**	**P70398.2**	
35	**Ubiquitin thioesterase OTUB1(Deubiquitinating enzyme)**	**Q7TQI3.2**	
36	**ubiquitin-conjugating enzyme E2 K**	**P61087.3**	
37	**ubiquitin-like modifier activating enzyme 1**	**Q02053.1**	
38	**Ubiquitin-like modifier activating enzyme 6**	**Q8C7R4.1**	
39	**ubiquitin-like modifier-activating enzyme 5**	**Q8VE47.2**	
40	**ubiquitin-like modifier-activating enzyme 7**	**NP_076227.1**	
41	**ubiquitin-like modifier-activating enzyme ATG7 (**	**NP_083111.1**	
42	**ubiquitin-like-conjugating enzyme ATG3**	**NP_080678.1**	
43	**Ubiquitin thioesterase OTUB1**	**Q7TQI3.2**	
44	**Peptidases**		
45	**a disintegrin and metallopeptidase domain 10**	**NP_031425.2**	
46	**Aminopeptidase-like protein 1**	**Q6NSR8.1**	
47	**Arginyl aminopeptidase (aminopeptidase B)**	**Q8VCT3.2**	
48	**aspartyl aminopeptidase**	**Q9Z2W0.2**	

49	**Branched chain aminotransferase 2, mitochondrial**	**AAH48072.1**	**x**
50	**cytosolic non-specific dipeptidase [Mus musculus]**	**Q9D1A2.1**	
51	**endoplasmic reticulum metallopeptidase 1**	**NP_001074682.1**	
52	**legumain (lysosomal endopeptidase)**	**O89017.1**	
53	**Leucine aminopeptidase 3**	**Q9CPY7.3**	
54	**leucyl-cystinyl aminopeptidase (IRAP)**	**Q3UES3.2**	
55	**methionine aminopeptidase 2**	**O08663.1**	
56	**mitochondrial-processing peptidase subunit beta**	**Q9CXT8.1**	
57	**N-acetylated-alpha-linked acidic dipeptidase 2**	**Q9CZR2.2**	
58	**prolyl endopeptidase**	**NP_035286.1**	
59	**Puromycin-sensitive aminopeptidase**	**Q11011.2**	
60	**X-prolyl aminopeptidase (aminopeptidase P) 1**	**Q00519.5**	
1	**PROTEIN SYNTHESIS**		
2	**Aspartyl-tRNA synthetase**	**Q922B2.2**	
3	**Alanyl-tRNA synthetase**	**NP_666329.2**	
4	**Acyl-CoA synthetase family member 2**	**AAH63269.1**	
5	**asparagine syntetase**	**NP_036185.1**	
6	**L-asparaginase**	**NP_079886.2**	
7	**ATP synthase subunit alpha, mitochondrial precursor**	**P_031531.1**	
8	**ATP synthase subunit beta, mitochondrial precursor**	**NP_058054.2**	
9	**bifunctional coenzyme A synthase**	**Q9DBL7.2**	
10	**Aspartyl-tRNA synthetase**	**Q922B2.2**	
11	**Eukaryotic translation elongation factor 1 alpha 1**	**AAH83069.1**	
12	**Eukaryotic translation elongation factor 1 alpha 2**	**AAH18235.1**	
13	**Eukaryotic translation elongation factor 1 delta**	**AAH79855.1**	
14	**Eukaryotic translation elongation factor 1 gamma**	**AAH83071.1**	
15	**Eukaryotic translation elongation factor 2**	**AAH07152.1**	
16	**EH domain-containing protein 2**	**NP_694708.2**	
17	**eukaryotic translation initiation factor 2 subunit 1**	**NP_080390.1**	

18	**eukaryotic translation initiation factor 2 subunit 2**	**NP_080306.1**	
19	**eukaryotic translation initiation factor 3 subunit C**	**NP_666312.1**	
20	**eukaryotic translation initiation factor 3 subunit D**	**O70194.2**	
21	**eukaryotic translation initiation factor 3 subunit E**	**P60229.1**	
22	**eukaryotic translation initiation factor 3 subunit L**	**NP_660121.2**	
23	**eukaryotic translation initiation factor 4A1**	**NP_659207.1**	
24	**eukaryotic translation initiation factor 6**	**O55135.2**	
25	**bifunctional aminoacyl-tRNA synthetase**	**NP_084011.1**	
26	**farnesyl pyrophosphate synthase**	**NP_608219.1**	
27	**Guanine monphosphate synthetase**	**AAI38413.1**	
28	**Ribosomal protein S2**	**EDL01859.1**	
29	**arginyl-tRNA synthetase, cytoplasmic**	**AAH20132.1**	
30	**Ribosomal protein 10**	**AAH24901.1**	
31	**60S ribosomal protein L10-like**	**P86048.1**	
32	**60S ribosomal protein L15**	**Q9CZM2.4**	
33	**60S ribosomal protein L19**	**P84099.1**	
34	**60S ribosomal protein L3**	**P27659.3**	
35	**60S ribosomal protein L4**	**Q9D8E6.3**	
36	**60S ribosomal protein L6**	**P47911.3**	
37	**60S ribosomal protein L7**	**P14148.2**	
38	**60S ribosomal protein L8**	**P62918.2**	
39	**60S acidic ribosomal protein P0**	**P14869.3**	
40	**dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1**	**Q91YQ5.1**	
41	**40S ribosomal protein S2**	**NP_032529.2**	
42	**40S ribosomal protein S3**	**NP_036182.1**	
43	**40S ribosomal protein S3a**	**P97351.3**	
44	**40S ribosomal protein S4, X isoform**	**P62702.2**	
45	**90 kDa ribosomal protein S6 kinase 1**	**P18653.1**	
46	**90 kDa ribosomal protein S6 kinase 3**	**P18654.2**	
47	**40S ribosomal protein S9**	**NP_084043.1**	

48	seryl-aminoacyl-tRNA synthetase	P26638.3	
49	threonyl-tRNA synthetase	Q9D0R2.2	
50	elongation factor Tu, mitochondrial	Q8BFR5.1	
51	Valyl-tRNA synthetase	Q9Z1Q9.1	
52	tryptophanyl-tRNA synthetase	P32921.2	
1	LIPID and ENERGY Metabolism		
2	6-phosphofructokinase, liver type	NP_032852.2	
3	adenylate kinase 2, mitochondrial	NP_058591.2	
4	adenylate kinase isoenzyme 4	NP_001171075.1	
5	ADP-sugar pyrophosphatase	NP_058614.1	
6	1,4-alpha-glucan-branching enzyme	NP_083079.1	
7	2-oxoglutarate dehydrogenase-like, mitochondrial	NP_001074599.1	
8	2-oxoisovalerate dehydrogenase subunit alpha, mitochondrial	NP_031559.3	
9	2-oxoisovalerate dehydrogenase subunit beta, mitochondrial	NP_954665.1	
10	3'(2'),5'-bisphosphate nucleotidase 1	NP_035924.2	
11	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1	Q8JZK9.1	
12	3-hydroxyisobutyrate dehydrogenase, mitochondrial	Q99L13.1	
13	3-hydroxyisobutyryl-Coenzyme A hydrolase	Q8QZS1.1	
14	3-ketoacyl-CoA thiolase A, peroxisomal precursor	NP_570934.1	
15	3-ketoacyl-CoA thiolase, mitochondrial	NP_803421.1	
16	3-oxoacyl-[acyl-carrier-protein] synthase, mitochondrial	Q9D404.1	
17	4-trimethylaminbutyraldehyde dehydrogenase	AAH03297.1	
18	5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase	EDL00264.1	
19	6-phosphogluconate dehydrogenase	Q9DCD0.3	
20	a disintegrin and metallopeptidase domain 10	NP_031425.2	
21	Abhydrolase domain containing 14b	AAH19410.1	
22	abhydrolase domain-containing protein FAM108A	NP_663396.1	
23	abhydrolase domain-containing protein FAM108B1	NP_666208.2	
24	acetoacetyl-CoA synthetase	NP_084486.1	

25	acetyl-CoA carboxylase 1	NP_579938.2	
26	acetyl-Coenzyme A carboxylase beta precursor	NP_598665.2	
27	acid ceramidase precursor	NP_062708.1	
28	aconitate hydratase, mitochondrial precursor	NP_542364.	
29	acyl-CoA dehydrogenase family member 9, mitochondrial	NP_766266.3	
30	Acyl-CoA synthetase family member 2	AAH63269.1	
31	acyl-Coenzyme A dehydrogenase family, member 8	NP_080138.2	
32	acyl-Coenzyme A oxidase 1, palmitoyl	CAM16380.	
33	acyl-coenzyme A thioesterase 10, mitochondrial precursor	NP_073727.2	
34	acyl-coenzyme A thioesterase 9, mitochondrial	NP_062710.2	
35	adenylosuccinate lyase	NP_033764.2	
36	ADP-dependent glucokinase precursor	NP_082397.1	
37	ADP-ribosylation factor-like protein 15	NP_766183.1	
38	ADP-ribosylation factor-like protein 3	NP_062692.1	
39	alcohol dehydrogenase [NADP+]	NP_067448.1	
40	aldehyde dehydrogenase family 3 member b1	NP_080592.2	
41	aldehyde dehydrogenase 4 family, member a1	CAM21310.1	
42	aldehyde dedrogenase. Mitochondrial precursor	NP_033786.1	
43	aldehyde dehydrogenase family 3 member b2	NP_001170909.1	
44	Aldehyde dehydrogenase family6 member a1	AAH311148.1	
45	Aldehyde dehydrogenase family 1 , subfamily A1	NP_038495.2	
46	Aldehyde dehydrogenase family 1 , subfamily A7	NP_036051.1	
47	Aldo-keto reductase family 1, member B3 (aldose reductase)	AAH85310.1	
48	Aldo-keto reductase family 1, member B7	AAH86929.1	
49	aldo-keto reductase family 1, member C-like	NP_081858.2	
50	aldo-keto reductase family 7, member A5 (aflatoxin aldehyde reductase	CAM18543.1	
51	aldolase A retroprotein 2	ABR88098.1	
52	alpha-aminoadipic semialdehyde dehydrogenase	NP_001120810.1	
53	alpha-enolase	NP_075608.2	
54	alpha-mannosidase 2C1	P08003.3	

55	alpha-N-acetylglucosaminidase	NP_038820.2	
56	asparagine syntetase	NP_036185.1	
57	aspartate transcarbamylase, and dihydroorotase	NP_076014.1	
58	aspartyl aminopeptidase	Q9Z2W0.2	
59	ATP citrate lyase	CAM23025.1	
60	ATP synthase subunit alpha, mitochondrial precursor	P_031531.1	
61	ATP synthase subunit beta, mitochondrial precursor	NP_058054.2	
62	ATP synthase subunit O, mitochondrial precursor	NP_613063.1	
63	ATP synthase, H+ transporting, mitochondrial F1 complex, gamma	CAM13922.1	
64	ATP-dependent RNA helicase DDX1	Q91VR5.1	
65	beta-glucuronidase	NP_034498.1	
66	bifunctional coenzyme A synthase	Q9DBL7.2	
67	Bleomycin hydrolase	AAH24090.1	
68	Brain glycogen phosphorylase	NP_722476.1	
69	C-1-tetrahydrofolate synthase, cytoplasmic	Q922D8.4	
70	Calcium-activated neutral proteinase 1 (calpain 1)	O35350.1	
71	Calcium-activated neutral proteinase 2 (calpain 2)	O08529.4	
72	Calcium-activated neutral proteinase 5 (calpain 5)	NP_031628.1	
73	carbohydrate kinase domain-containing protein isoform 1	NP_081271.2	
74	Casein kinase 1, gamma 2	AAH04839.1	
75	Cytidine monophosphate (UMP-CMP) kinase 1	Q9DBP5.1	
76	cytochrome b5 domain containing 2	Q5SSH8.1	
77	Cytochrome b5 type B	Q9CQX2.1	
78	cytochrome b-c1 complex subunit 1, mitochondrial	Q9CZ13.2	
79	cytochrome b-c1 complex subunit 2, mitochondrial	Q9DB77.1	
80	electron transfer flavoprotein subunit alpha, mitochondrial	NP_663590.3	
81	electron transfer flavoprotein subunit beta	NP_080971.2	
82	electron transfer flavoprotein-ubiquinone oxidoreductase, mitochondrial	NP_080070.2	
83	endoplasmic reticulum-Golgi intermediate compartment protein 1	NP_080446.1	
84	endoplasmic reticulum-Golgi intermediate compartment protein 3	NP_079792.1	

85	Erythrocyte band 7 integral membrane protein (Stomatin)	P54116.3	
86	dicarbonyl L-xylulose reductase,	Q91X52.2	
87	Dihydrolipoamide branched chain transacylase E2	P53395.2	
88	dihydrolipoyl dehydrogenase, mitochondrial	O08749.2	
89	Discoidin domain-containing receptor	Q62371.2	
90	dihydropyrimidinase-related protein 2 [	O08553.2	
91	electron transfer flavoprotein subunit alpha, mitochondrial precursor	NP_663590.3	
92	electron transfer flavoprotein subunit beta	NP_080971.2	
93	electron transfer flavoprotein-ubiquinone oxidoreductase, mitochondrial	NP_080070.2	
94	endoplasmic reticulum metallopeptidase 1	NP_001074682.1	
95	Endothelin converting enzyme 1	Q4PZA2.1	
96	enoyl Coenzyme A hydratase, short chain, 1, mitochondrial	Q8BH95.1	
97	enoyl-CoA delta isomerase 1, mitochondrial	P42125.1	
98	enoyl-CoA delta isomerase 2, mitochondrial	Q9WUR2.2	
99	enoyl-CoA hydratase domain-containing protein 1	Q9D9V3.2	
100	enoyl-Coenzyme A delta isomerase 3	NP_081223.1	
101	epoxide hydrolase 2	NP_031966.2	
102	farnesyl pyrophosphate synthase	NP_608219.1	
103	fatty acid desaturase 3	NP_068690.3	
104	fatty acid synthase	NP_032014.3	
105	fatty aldehyde dehydrogenase	NP_031463.2	
106	fructose-bisphosphate aldolase A isoform 2	NP_001170779.1	
107	fumarate hydratase, mitochondrial	NP_034339.2	
108	fumarylacetoacetase (Fumarylacetoacetate hydrolase)	NP_034306.2	
109	galactokinase	NP_058601.2	
110	gamma-enolase	P_038537.1	
111	GCN1 general control of amino-acid synthesis 1-like 1 [	NP_766307.2	
112	glucose-6-phosphate 1-dehydrogenase X	NP_032088.1	
113	glutamate dehydrogenase 1, mitochondrial	AAH57347.1	
114	glutamate--cysteine ligase catalytic subunit	NP_034425.1	

115	glutamic pyruvate transaminase (alanine aminotransferase) 2	Q8BGT5.1	
116	glutamic pyruvic transaminase 1, soluble,	Q8QZR5.3	
117	glutamine synthetase	NP_032157.2	
118	glutathione peroxidase 1	P11352.2	
119	glutathione reductase, mitochondrial	NP_034474.4	
120	glutathione S-transferase Mu 5	NP_034490.1	
121	glutathione S-transferase omega-1	NP_034492.1	
122	glutathione S-transferase P 1	P19157.2	
123	glutathione S-transferase P 2	P46425.2	
124	glutathione transferase zeta 1 (maleylacetoacetate isomerase)	Q9WVL0.1	
125	glyceraldehyde-3-phosphate dehydrogenase, testis-specific	NP_032111.1	
126	Glycerol-3-phosphate dehydrogenase 1	P13707.3	
127	glycerol-3-phosphate dehydrogenase, mitochondrial	Q64521.2	
128	glycogen debranching enzyme	NP_001074795.1	
129	Glycogen synthase 1	Q9Z1E4.2	
130	glyoxylate reductase/hydroxypyruvate reductase	Q91Z53.1	
131	guanine deaminase	NP_034396.1	
132	Guanine monphosphate synthetase	AAI38413.1	
133	heme oxygenase 1	NP_034572.1	
134	heparan-alpha-glucosaminide N-acetyltransferase	Q3UDW8.2	
135	hexokinase-1	P17710.3	
136	hexokinase-2	O08528.1	
137	hormone-sensitive lipase 1	NP_034849.2	
138	hydroxyacid-oxoacid transhydrogenase, mitochondrial precursor	NP_780445.1	
139	Hydroxyacyl-Coenzyme A dehydrogenase	Q61425.2	
140	Hydroxyacyl-Coenzyme A dehydrogenase beta	Q99JY0.1	
141	hydroxymethylglutaryl-CoA lyase, mitochondrial	P38060.2	
142	Hydroxysteroid (17-beta) dehydrogenase 4	P51660.3	
143	hydroxysteroid (17-beta)dehydrogenase 12	CAM27609.1	
144	hydroxysteroid dehydrogenase like 2	NP_077217.2	

145	Hydroxysteroid dehydrogenase like protein 1	Q8BTX9.1	
146	hypoxanthine-guanine phosphoribosyltransferase	Q64531.3	
147	immunoglobulin superfamily member 8	Q8R366.2	
148	inorganic pyrophosphatase 1	NP_080714.2	
149	inorganic pyrophosphatase 2, mitochondrial precursor	NP_666253.1	
150	insulin-degrading enzyme	AAH41675.1	
151	isoamyl acetate-hydrolyzing esterase 1 homolog	Q9DB29.1	
152	Isochorismatase domain containing 1	AAH16576.1	
153	isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial	NP_083849.1	
154	isocitrate dehydrogenase [NADP] cytoplasmic	NP_001104790.1	
155	isocitrate dehydrogenase [NADP], mitochondrial	NP_766599.2	
156	isocitrate dehydrogenase 3, beta subunit	NP_570954.1	
157	isopentenyl-diphosphate delta isomerase	P58044.1	
158	Isovaleryl-CoA dehydrogenase, mitochondrial	Q9JHI5.1	
159	LanC (bacterial lantibiotic synthetase component C)-like protein 2	Q9JJK2.1	
160	lanosterol synthase]	NP_666118.1	
161	L-asparaginase	NP_079886.2	
162	legumain (lysosomal endopeptidase)	O89017.1	
163	leukotriene A-4 hydrolase	P24527.4	
164	LIM and SH3 protein 1	Q61792.1	
165	lipid phosphate phosphohydrolase 3	NP_542122.1	
166	lipoprotein ligase	P11152.3	
167	L-lactate dehydrogenase A chain	P06151.3	
168	L-lactate dehydrogenase B chain	P16125.2	
169	long-chain specific acyl-CoA dehydrogenase, mitochondrial	NP_031407.2	
170	long-chain-fatty-acid--CoA ligase 1	NP_032007.2	
171	Lysophospholipase 1	P97823.1	
172	lysophospholipase-like protein 1	Q3UFF7.3	
173	malate dehydrogenase, cytoplasmic	P14152.3	
174	malate dehydrogenase, mitochondrial	P08249.3	

175	malonyl-CoA decarboxylase, mitochondrial	Q99J39.1	
176	medium-chain specific acyl-CoA dehydrogenase, mitochondrial	NP_031408.1	
177	Mercaptopyruvate sulfurtransferase	Q99J99.3	
178	metalloreductase STEAP3	Q8CI59.1	
179	methionine aminopeptidase 2	O08663.1	
180	methylmalonyl-CoA mutase, mitochondrial	P16332.2	
181	miochondrial 10 formyltetrahydrofolate dehydrogenase	NP_705771.2	
182	mitochondrial peptide methionine sulfoxide reductase	Q9D6Y7.	
183	mitochondrial-processing peptidase subunit beta	Q9CXT8.1	
184	MMS19 nucleotide excision repair protein homolog	Q9D071.	
185	monoacylglycerol lipase ABHD12	NP_077785.2	
186	Muscle glycogen phosphorylase	AAH12961.1	
187	Myo-inositol 1-phosphate synthase A1	AAH03458.1	
188	N-acetylated-alpha-linked acidic dipeptidase 2	Q9CZR2.2	
189	N-acetylglucosaminyl transferase component Gpi1	AAC79574.1	
190	N-acetylneuraminic acid synthase (sialic acid synthase)	NP_444409.1	
191	NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial	Q91YT0.1	
192	NADH dehydrogenase [ubiquinone] flavoprotein 2, mitochondrial	Q9D6J6.2	
193	NADH dehydrogenase [ubiquinone] iron-sulfur protein 1, mitochondrial	Q91VD9.2	
194	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial;	Q91WD5.1	
195	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial	Q9DCT2.2	
196	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial	Q9DC70.1	
197	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial	Q8K3J1.1	
198	NADH-cytochrome b5 reductase 3	Q9DCN2.3	
199	NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial	NP_001153512.1	
200	neutral alpha-glucosidase AB	NP_032086.1	
201	Nicotinamide phosphoribosyltransferase;	Q99KQ4.1	
202	ornithine aminotransferase, mitochondrial	P29758.1	
203	oxoglutarate dehydrogenase (lipoamide)	NP_001239212.1	
204	P450 (cytochrome) oxidoreductase	P37039.2	

205	patatin-like phospholipase domain containing protein 2	Q8BJ56.1	
206	peptidyl-prolyl cis-trans isomerase FKBP8 (FK506-binding protein 8)	NP_001186560.1	
207	Peroxiredoxin-1 (Thioredoxin peroxidase)	P35700.1	
208	peroxiredoxin-3	P20108.1	
209	peroxiredoxin-4	O08807.1	
210	peroxiredoxin-6	O08709.3	
211	peroxiredoxin-6 related sequence 1	NP_796230.1	
212	peroxisomal acyl-coenzyme A oxidase 3	NP_109646.2	
213	Peroxredoxin-2 (thioredoxin-dependent peroxide reductase)	Q61171.3	
214	phosphatidylinositol transfer protein, beta	P53811.2	
215	Phosphoglucomutase 2	AAH86490.1	
216	Phosphoglycerate mutase 1	Q9DBJ1.3	
217	phosphoglycerate mutase 2	O70250.3	
218	phospholipid scramblase 3	Q9JIZ9.1	
219	phosphoenolpyruvate carboxykinase [GTP], mitochondrial	Q8BH04.1	
220	Phosphofructokinase, platelet	Q9WUA3.1	
221	phosphoglycerate kinase 1	P09411.4	
222	phosphoglycerate kinase 2	P09041.4	
223	phosphorylase b kinase regulatory subunit beta	Q7TSH2.1	
224	phosphopantothenoylcysteine decarboxylase	NP_789801.1	
225	Phosphoribosylaminoimidazole carboxylase	Q9DCL9.4	
226	pitrilysin metalloprotease 1, mitochondrial	Q8K411.1	
227	probable methylthioribulose-1-phosphate dehydratase	NP_062709.3	
228	Probable saccharopine dehydrogenase	Q8R127.1	
229	Proliferation-associated protein 2G4	P50580.3	
230	proline dehydrogenase	AAD24776.1	
231	prolyl endopeptidase	NP_035286.1	
232	propionyl-CoA carboxylase alpha chain, mitochondrial	Q91ZA3.2	
233	propionyl-CoA carboxylase beta chain, mitochondrial	Q99MN9.2	
234	prostaglandin reductase 2	Q8VDQ1.2	

235	protein disulfide-isomerase (ERp59)	P09103.2	
236	protein disulfide-isomerase A3	P27773.2	
237	protein disulfide-isomerase A4	P08003.3	
238	protein disulfide-isomerase A6	Q922R8.3	
239	protein kinase C and casein kinase II substrate protein 3	NP_112019.2	
240	protein sprouty homolog 4	Q9WTP2.1	
241	Purine-nucleoside phosphorylase 1	P23492.2	
242	Puromycin-sensitive aminopeptidase	Q11011.2	
243	putative adenosylhomocysteinase 2	NP_663517.2	
244	Pyridoxal (pyridoxine, vitamin B6) kinase	Q60925.2	
245	pyruvate kinase isozymes M1/M2	P52480.4	
246	pyruvate carboxylase, mitochondrial	Q05920.1	
247	pyruvate dehydrogenase E1 component subunit alpha, , mitochondrial	NP_032836.1	
248	pyruvate dehydrogenase E1 component subunit beta, mitochondrial	Q9D051.1	
249	pyruvate dehydrogenase protein X component, mitochondrial	Q8BKZ9.1	
250	redox-regulatory protein PAMM	NP_081740.2	
251	ribonuclease inhibitor isoform b	NP_001165572.1	
252	ribose 5-phosphate isomerase	P47968.2	
253	S-adenosylmethionine synthase isoform type-2	NQ3THS6.2P	
254	serine (or cysteine) peptidase inhibitor, clade B, member 6a (Serpin 6)	Q60854.1	
255	serine (or cysteine) peptidase inhibitor, clade H (serpin H1)	P19324.3	
256	S-formylglutathione hydrolase	NP_058599.1	
257	short-chain specific acyl-CoA dehydrogenase, mitochondrial	NP_031409.2	
258	sochorismatase domain-containing protein 2A, mitochondrial	P85094.1	
259	staphylococcal nuclease and tudor domain containing 1	Q78PY7.1	
260	succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial	Q8K2B3.1	
261	succinate dehydrogenase complex subunit B	Q9CQA3.1	
262	succinyl-CoA ligase [ADP-forming] subunit beta, mitochondrial	NP_035636.1	
263	Sulfide:quinone oxidoreductase, mitochondrial	Q9R112.3	
264	superoxide dismutase 2, mitochondrial	P09671.3	

265	Synaptotagmin binding, cytoplasmic RNA interacting protein	Q9WUM5.4	
266	Thioredoxin domain containing 14	Q8C838.1	
267	thioredoxin domain-containing protein 5	Q9D710.1	
268	thioredoxin reductase 1	Q8CDN6.3	
269	thioredoxin-like protein 1	Q91W90.2	
270	thioredoxin-related transmembrane protein 1	NP_620097.1	
271	thioredoxin-related transmembrane protein 4	NP_082615.1	
272	thiosulfate sulfurtransferase	Q8BJU2.1	
273	transaldolase	Q9WVA4.4	
274	trifunctional enzyme subunit alpha, mitochondrial	Q8BMS1.1	
275	trimethyllysine dioxygenase, mitochondrial	NP_776095.2	
276	triosephosphate isomerase	NP_613065.2	
277	UDP-glucose 4-epimerase	NP_848476.1	
278	UDP-N-acetylhexosamine pyrophosphorylase-like protein 1	Q9JMH6.3	
279	very long-chain specific acyl-CoA dehydrogenase, mitochondrial	NP_059062.1	
280	xanthine dehydrogenase 1	O88342.3	
1	Others		
2	SPRY domain-containing protein 7	NP_079973.1	
3	consortin (Golgi protein)	NP_666217.2	
4	adenylate cyclase type 6	NP_031431.2	
5	adiponectin	NP_033735.3	
6	desmoyokin (scaffold nuclear protein)	NP_033773.1	
7	apolipoprotein A-I-binding protein precursor	NP_659146.1	
8	apolipoprotein o0like	NP_080841.1	
9	aquaporin 1	NP_031498.1	
10	ADP-ribosylation factor-like protein 15	NP_766183.1	
11	ADP-ribosylation factor-like protein 3	NP_062692.1	
12	ataxin 10	P28658.2	
13	BCL2-like 13 (apoptosis facilitator)	AAH29016.1	

14	baculoviral IAP repeat-containing 6	NP_031592.2	
15	complement C3 precursor	NP_033908.2	
16	Complement component 4B	AAH67394.1	
17	Calreticulin (ER Ca2+ chaperone)	AAH03453.1	
18	CD3-epsilon-associated protein	O15446.1	
19	C-type lectin domain family 2 member D	Q91V08.1	
20	Neighbor of COX4	O70378.1	
21	Copine I	NP_733467.1	
22	cysteine and glycine-rich protein 1	P97315.3	
23	DNA segment, Chr 10, Johns Hopkins University 81 expressed	AAH13475.1	
24	DNA segment, Chr 10, Wayne State University 52, expressed	AAH03288.1	
25	DNA segment, Chr 1, Pasteur Institute 1	AAI39287.1	
26	disheveled-associated activator of morphogenesis 1	Q8BPM0.4	
27	drebrin-like protein	Q62418.2	
28	DNA damage-binding protein 1	Q3U1J4.2	
29	estrogen receptor-binding fragment-associated protein 9	Q9D0V7.2	
30	EFR3 homolog A	AAH07482.1	
31	Family with sequence similarity 176, member B	NP_742157.1	
32	Family with sequence similarity 49, member b	NP_659095.1	
33	fermitin family homolog 2	NP_666166.2	
34	protein furry homolog-like	NP_082470.2	
35	ferritin heavy chain	NP_032010.2	
36	ferritin light chain 1	NP_034370.2	
37	Ferritin light chain 2	P49945.2	
38	FYVE and coiled-coil domain-containing protein 1	NP_001103723.1	
39	High density lipoprotein (HDL) binding protein	Q8VDJ3.1	
40	Heme binding protein 1	Q9R257.1	
41	huntingtin	P42859.2	
42	immunoglobulin superfamily member 8	Q8R366.2	
43	LIM and SH3 protein 1	Q61792.1	

44	leucine-rich PPR motif-containing protein, mitochondrial	Q6PB66.2	
45	Leucine rich repeat containing 59	NP_598568.1	
46	Melanoma-associated antigen MUC18	Q8R2Y2.	
47	MMS19 nucleotide excision repair protein homolog	Q9D071.	
48	protein MON2 homolog isoform 2	NP_001156497.1	
49	neuroblastoma-amplified protein	NP_081982.1	
50	NHL repeat-containing protein 3	Q8CCH2.1	
51	Neuropilin 1 (CD305, receptor)	P97333.2	
52	Proliferation-associated protein 2G4	P50580.3	
53	protein kinase C and casein kinase II substrate protein 3	NP_112019.2	
54	Parkinson disease (autosomal recessive, early onset) 7	Q99LX0.1	
55	programmed cell death 6-interacting protein 1	NP_001158149.1	
56	phosphatidylinositol-binding clathrin assembly protein	NP_666306.2	
57	phosphatidylinositol glycan anchor biosynthesis, class K,	Q9CXY9.2	
58	phosphatidylinositol transfer protein, beta	P53811.2	
59	transcriptional activator protein Pur-alpha	P42669.1	
60	retinitis pigmentosa 2 homolog	NP_598430.1	
61	SAM domain and HD domain, 1	Q60710.2	
62	Serum deprivation-response protein	Q63918.3	
63	selenium-binding protein 2	Q63836.2	
64	septin 7 (GTP binding protein)	Q9Z2Q6.2	
65	sideroflexin-1	NP_081600.1	
66	sideroflexin-3	Q91V61.1	
67	Delta-sarcoglycan	P82347.1	
68	small glutamine-rich tetratricopeptide repeat-containing protein alpha	Q8BJU0.2	
69	nucleotide exchange factor SIL1	NP_109674.2	
70	Substance-P receptor;	P30548.2	
71	protein sprouty homolog 4	Q9WTP2.1	
72	signal transducer and activator of transcription 1 (stat1)	NP_001192242.1	
73	antigen peptide transporter 1	NP_663531.1	

74	**TAR DNA binding protein**	**Q8BYA0.1**	
75	**T-complex protein 1 (chaperonin)**	**NP_033407.1**	
76	**thyroid hormone-inducible hepatic protein**	**NP_076253.1**	
77	**toll interacting protein**	**NP_033455.1**	
78	**translationally-controlled tumor protein**	**NP_080784.1**	
79	**Proliferation-associated protein 2G4**	**P50580.3**	

*The determination of palmitoylated proteins that have been implicated in Glut4 vesicle trafficking is based on the Mass
Spectrum Data of Glut4 vesicles from edrychowski MP, Gartner CA, Gygi SP, Zhou L, Herz J, Kandror KV, Pilch PF, 2010 J. Biol. Chem. 285: 104-14