Supplementary table ST1: List of cytokines showing differential abundance in GBM sera.

S. No	Symbol	Serum cytokine levels by bead array[#]				Cytokine expression from TCGA[%]		
		Abundance	p value	Normal pg/ml (Mean±SEM)	GBM pg/ml (Mean±SEM)	Regulation	Log2 fold change	P value
1	IL10	High	3.50E-12	1.20±0.25	25.30±4.75	Up	0.50	0.007705
2	IL17	High	9.91E-11	4.79±1.65	68.67±4.80	Down	-0.35	2.44E-05
3	IL2	High	4.03E-07	14.43±11.46	30.48±4.80	Up	0.29	0.013905
4	MIP1α	High	6.83E-06	2.42±1.29	143.36±77.02	NS	NS	NS
5	IL15	High	2.54E-11	0.35±0.13	10.65±2.50	Up	1.18	2.00E-04
6	TNFα	High	2.32E-05	28.82±17.50	48.33±9.77	NS	NS	NS
7	LIF	High	5.03E-06	1.00±0.00	12.02±1.37	Up	0.71	0.003247
8	IL6	High	1.23E-07	6.42±1.46	427.55±168.7	NS	NS	NS
9	IL9	High	3.98E-06	103.68±69.69	149.54±51.39	NS	NS	NS
10	FGFbasic	High	4.04E-05	4.69±2.73	15.13±1.47	Up	0.73	0.001428
11	IL4	High	4.79E-09	1.12±0.32	4.47±0.31	Up	0.86	2.44E-05
12	IFNγ	High	4.73E-08	65.93±27.07	205.00±31.13	Up	0.48	0.004681
13	GM-CSF	High	8.50E-04	6.85±1.85	53.41±5.7	Up	0.50	0.009749
14	IL7	High	1.26E-08	5.69±0.50	21.12±3.86	Up	2.39	8.00E-06
15	IL1Rα	High	1.28E-04	122.11±10.72	571.57±83.11	Up	0.44	0.044092
16	IL1β	High	0.011423	1.79±0.62	61.94±38.03	NS	NS	NS
17	TNFβ	High	0.024561	2.54±1.00	5.38±0.88	NS	NS	NS
18	SCGFβ	High	1.01E-06	22446±1741	40657±1620	Up	0.52	0.001428
19	GROα	High	0.017843	81.14±9.07	420.1±109.21	NS	NS	NS
20	MIG	High	0.003469	1213.±403	2137.3±238.3	Up	2.22	3.40E-05
21	IL13	High	0.010509	4.36±0.72	8.97±1.1	Down	-0.18	0.003917

22	HGF	High	6.22E-04	576.06±29.33	932.44±51.03	NS	NS	NS
23	IL2Rα	High	0.016059	77.79±5.39	123.86±6.84	Up	1.70	2.44E-05
24	M-CSF	High	0.011199	20.04±1.70	41.54±3.14	Up	0.46	2.00E-04
25	CTACK	Low	0.025030	753.11±28.80	666.67±28.91	Up	0.59	0.013905
26	IP10	Low	2.52E-04	1450.2±120.2	1092.94±95.5	Up	2.23	7.37E-05
27	IFNα2	Low	6.14E-05	30.23±1.56	19.98±1.21	NS	NS	NS
28	TRAIL	Low	6.14E-05	58.53±4.37	36.96±2.1	Up	1.13	0.002218
29	SDF1α	Low	0.018249	73.18±7.15	57.30±5.88	NS	NS	NS
30	MIF	Low	1.80E-04	2574.3±233.3	3184.7±762.2	NS	NS	NS
31	eotaxin	Low	2.06E-04	195.06±15.49	154.25±23.38	Down	-0.15	0.027505
32	IL12 (p40)	Low	0.035949	61.53±8.55	59.56±7.00	Down	-0.32	0.001131
33	βNGF	Low	1.20E-05	1.94±0.19	1.03±0.12	Down	-0.29	0.001246

[#]Serum cytokine profiling (n=48 cytokines) was carried out using normal sera (n=26 samples) and GBM sera (n=148 samples) by bead array method. Non-parametric t-test was conducted with FDR correction to identify significant differentially abundant cytokines (n=33 cytokines). The abundance, p value and mean value with standard error for 33 differentially abundant cytokines are provided in the table.

[%]The TCGA microarray data which is publically available was used to check the transcript levels of 33 differentially regulated cytokines obtained by bead array. Non-parametric t-test was conducted with FDR correction using log 2 ratio of normal brain tissue and GBM tumor tissue to identify significant differentially regulated cytokines at transcript level. The regulation, p value and log 2 fold change are provided in the table. NS refers to non-significant.

Supplementary table ST2: List of proteins identified in CHME-3 supernatant treated with U87 CM.

S. No	Protein AC [a]	Protein names [b]	Gene names	Peptides[c]	Signal peptide[d]	NN-score[e]
1	P12111	Collagen alpha-3(VI) chain	COL6A3	126	+	0.321
2	Q15149-4	Plectin	PLEC	99	NA	NA
3	P01024	Complement C3;Complement C3 beta chain;Complement C3 alpha chain;C3a anaphylatoxin;Acylation stimulating protein;Complement C3b alpha chain;Complement C3c alpha chain fragment 1;Complement C3dg fragment;Complement C3g fragment;Complement C3d fragment;Comp	C3	95	+	0.618
4	P02751	Fibronectin;Anastellin;Ugl-Y1;Ugl-Y2;Ugl-Y3	FN1	95	+	0.369
5	P02751-15	Fibronectin;Anastellin;Ugl-Y1;Ugl-Y2;Ugl-Y3	FN1	95	+	0.364
6	Q14315-2	Filamin-C	FLNC	87	-	0.449
7	P21333-2	Filamin-A	FLNA	79	-	0.442
8	O75369-2	Filamin-B	FLNB	78	-	0.358
9	P35579	Myosin-9	MYH9	74	-	0.075
10	P24821	Tenascin	TNC	65	+	0.468
11	Q14204	Cytoplasmic dynein 1 heavy chain 1	DYNC1H1	57	NA	NA
12	P12814	Alpha-actinin-1	ACTN1	56	-	0.431
13	O43707	Alpha-actinin-4	ACTN4	53	-	0.418
14	Q9Y490	Talin-1	TLN1	50	-	0.233
15	Q13813-3	Spectrin alpha chain, non-erythrocytic 1	SPTAN1	45	-	0.236
16	Q00610-2	Clathrin heavy chain 1	CLTC	43	-	0.439
17	Q99715-4	Collagen alpha-1(XII) chain	COL12A1	42	+	0.339
18	P18206-2	Vinculin	VCL	40	-	0.207
19	Q01082	Spectrin beta chain, non-erythrocytic 1	SPTBN1	40	-	0.177
20	P53396-2	ATP-citrate synthase	ACLY	38	-	0.537
21	P46940	Ras GTPase-activating-like protein IQGAP1	IQGAP1	38	-	0.24
22	P08238	Heat shock protein HSP 90-beta	HSP90AB1	38	-	0.204
23	P26038	Moesin	MSN	37	-	0.53
24	P07900	Heat shock protein HSP 90-alpha	HSP90AA1	36	-	0.173
25	P13639	Elongation factor 2	EEF2	35	-	0.38
26	Q14697	Neutral alpha-glucosidase AB	GANAB	33	+	0.64
27	Q02809	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	PLOD1	33	+	0.573
28	P08253	72 kDa type IV collagenase;PEX	MMP2	33	+	0.514
29	Q02388-2	Collagen alpha-1(VII) chain	COL7A1	33	+	0.082
30	P14618-2	Pyruvate kinase PKM;Pyruvate kinase	PKM;PKM2	32	-	0.436
31	P14618	Pyruvate kinase PKM	PKM	32	-	0.42

32	P11021	78 kDa glucose-regulated protein	HSPA5	31	+	0.745
33	P11142	Heat shock cognate 71 kDa protein	HSPA8	31	-	0.229
34	Q07954	Prolow-density lipoprotein receptor-related protein 1;Low-density lipoprotein receptor-related protein 1 85 kDa subunit;Low-density lipoprotein receptor-related protein 1 515 kDa subunit;Low-density lipoprotein receptor-related protein 1 intracellular dom	LRP1	31	NA	NA
35	P29401	Transketolase	TKT	30	-	0.315
36	P13667	Protein disulfide-isomerase A4	PDIA4	29	+	0.543
37	P14625	Endoplasmin	HSP90B1	29	+	0.495
38	Q15582	Transforming growth factor-beta-induced protein ig-h3	TGFBI	29	+	0.454
39	P02545	Prelamin-A/C;Lamin-A/C	LMNA	29	-	0.077
40	Q9NYU2-2	UDP-glucose:glycoprotein glucosyltransferase 1	UGGT1	28	+	0.624
41	P07942	Laminin subunit beta-1	LAMB1	28	+	0.352
42	P11047	Laminin subunit gamma-1	LAMC1	28	+	0.284
43	P07237	Protein disulfide-isomerase	P4HB	27	+	0.679
44	O00469-2	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 2	PLOD2	27	+	0.626
45	P08670	Vimentin	VIM	27	-	0.512
46	Q16531	DNA damage-binding protein 1	DDB1	26	-	0.554
47	P00338	L-lactate dehydrogenase A chain	LDHA	25	-	0.549
48	E9PLK3	Puromycin-sensitive aminopeptidase	NPEPPS	25	-	0.46
49	P21399	Cytoplasmic aconitate hydratase	ACO1;IRP1	25	-	0.404
50	P00558	Phosphoglycerate kinase 1;Phosphoglycerate kinase	PGK1	25	-	0.389
51	P43490	Nicotinamide phosphoribosyltransferase	NAMPT;NAMPTL	25	-	0.302
52	P08107	Heat shock 70 kDa protein 1A/1B	HSPA1A	25	-	0.28
53	P05121	Plasminogen activator inhibitor 1	SERPINE1	24	+	0.644
54	P15311	Ezrin	EZR	24	-	0.563
55	P06744	Glucose-6-phosphate isomerase	GPI	24	-	0.453
56	B7Z6M1	Plastin-3	PLS3	24	-	0.399
57	P04075	Fructose-bisphosphate aldolase A;Fructose-bisphosphate aldolase	ALDOA	24	-	0.356
58	P12109	Collagen alpha-1(VI) chain	COL6A1	24	+	0.234
59	P34932	Heat shock 70 kDa protein 4	HSPA4	24	-	0.226
60	O00391	Sulfhydryl oxidase 1	QSOX1	23	+	0.611
61	P06733	Alpha-enolase	ENO1	23	-	0.536
62	P06737-2	Glycogen phosphorylase, liver form;Phosphorylase	PYGL	23	-	0.382
63	P12956	X-ray repair cross-complementing protein 6	XRCC6	23	-	0.372
64	P35241	Radixin	RDX	23	-	0.31
65	P55072	Transitional endoplasmic reticulum ATPase	VCP	23	-	0.163

66	O00410	Importin-5	IPO5	22	-	0.627
67	O60568	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 3	PLOD3	22	+	0.561
68	P50990	T-complex protein 1 subunit theta	CCT8	22	-	0.508
69	P50395	Rab GDP dissociation inhibitor beta	GDI2	22	-	0.315
70	O15230	Laminin subunit alpha-5	LAMA5	22	Na	Na
71	Q14974	Importin subunit beta-1	KPNB1	21	-	0.588
72	P08254	Stromelysin-1	MMP3	21	+	0.568
73	P31939	Bifunctional purine biosynthesis protein PURH; Phosphoribosylaminoimidazolecarboxamide formyltransferase;IMP cyclohydrolase	ATIC	21	-	0.476
74	G3V0E5	Transferrin receptor protein 1;Transferrin receptor protein 1, serum form	TFRC	21	-	0.425
75	P55060-3	Exportin-2	CSE1L	21	-	0.42
76	P78527	DNA-dependent protein kinase catalytic subunit	PRKDC	21	NA	NA
77	Q16706	Alpha-mannosidase 2	MAN2A1	20	+	0.661
78	Q9NZ08	Endoplasmic reticulum aminopeptidase 1	ERAP1	20	+	0.609
79	O75326	Semaphorin-7A	SEMA7A	20	+	0.484
80	Q86VP6	Cullin-associated NEDD8-dissociated protein 1	CAND1	20	-	0.417
81	P49327	Fatty acid synthase;[Acyl-carrier-protein] S-acetyltransferase;[Acyl-carrier-protein] S-malonyltransferase;3-oxoacyl-[acyl-carrier-protein] synthase;3-oxoacyl-[acyl-carrier-protein] reductase;3-hydroxyacyl-[acyl-carrier-protein] dehydratase;Enoyl-[acyl-carrier-protein] reductase;Oleoyl-[acyl-carrier-protein] hydrolase	FASN	20	-	0.408
82	P28838-2	Cytosol aminopeptidase	LAP3	20	-	0.396
83	P15121	Aldose reductase	AKR1B1	20	-	0.395
84	P06396-2	Gelsolin	GSN	20	-	0.393
85	P19338	Nucleolin	NCL	20	-	0.386
86	P19367-4	Hexokinase-1	HK1	20	-	0.375
87	P03956	Interstitial collagenase;22 kDa interstitial collagenase;27 kDa interstitial collagenase	MMP1	19	+	0.637
88	P22314	Ubiquitin-like modifier-activating enzyme 1	UBA1	19	-	0.53
89	O75083	WD repeat-containing protein 1	WDR1	19	-	0.518
90	E9PIR7	Thioredoxin reductase 1, cytoplasmic	TXNRD1	19	-	0.426
91	Q16555-2	Dihydropyrimidinase-related protein 2	DPYSL2	19	-	0.425
92	P08581	Hepatocyte growth factor receptor	MET	19	+	0.374
93	Q14764	Major vault protein	MVP	19	-	0.341
94	Q02818	Nucleobindin-1	NUCB1	19	+	0.305
95	P10809	60 kDa heat shock protein, mitochondrial	HSPD1	19	-	0.289

96	O43852	Calumenin	CALU	18	+	0.753
97	Q08380	Galectin-3-binding protein	LGALS3BP	18	+	0.738
98	P60842	Eukaryotic initiation factor 4A-I	EIF4A1	18	-	0.631
99	P35442	Thrombospondin-2	THBS2	18	+	0.526
100	O60462-4	Neuropilin-2	NRP2	18	+	0.518
101	O15067	Phosphoribosylformylglycinamidine synthase	PFAS	18	-	0.488
102	P60174-1	Triosephosphate isomerase	TPI1	18	-	0.39
103	Q7KZF4	Staphylococcal nuclease domain-containing protein 1	SND1	18	-	0.302
104	P36222	Chitinase-3-like protein 1	CHI3L1	17	+	0.645
105	Q6UVK1	Chondroitin sulfate proteoglycan 4	CSPG4	17	+	0.584
106	P68371	Tubulin beta-4B chain;Tubulin beta-4A chain	TUBB4B; TUBB4A	17	-	0.501
107	Q5JP53	Tubulin beta chain	TUBB	17	-	0.497
108	P09960	Leukotriene A-4 hydrolase	LTA4H	17	-	0.485
109	P48637	Glutathione synthetase	GSS	17	-	0.484
110	Q04446	1,4-alpha-glucan-branching enzyme	GBE1	17	-	0.455
111	P11413	Glucose-6-phosphate 1-dehydrogenase	G6PD	17	-	0.449
112	Q10567-3	AP-1 complex subunit beta-1	AP1B1	17	-	0.447
113	Q16719	Kynureninase	KYNU	17	-	0.426
114	B4E3Q1	Calsyntenin-1;Soluble Alc-alpha;CTF1-alpha	CLSTN1	17	+	0.425
115	P36871	Phosphoglucomutase-1	PGM1	17	-	0.417
116	P18669	Phosphoglycerate mutase 1	PGAM1	17	-	0.407
117	P14314-2	Glucosidase 2 subunit beta	PRKCSH	17	+	0.338
118	P62258	14-3-3 protein epsilon	YWHAE	17	-	0.33
119	P12110	Collagen alpha-2(VI) chain	COL6A2	17	+	0.214
120	P07355	Annexin A2;Annexin;Putative annexin A2-like protein	ANXA2;ANXA2P2	16	-	0.746
121	K7EJT8	AP-2 complex subunit beta	AP2B1	16	-	0.702
122	P07195	L-lactate dehydrogenase B chain;L-lactate dehydrogenase	LDHB	16	-	0.569
123	P23526	Adenosylhomocysteinase	AHCY	16	-	0.507
124	P63261	Actin, cytoplasmic 2;Actin, cytoplasmic 2, N-terminally processed	ACTG1;ACTA1	16	-	0.505
125	P40227	T-complex protein 1 subunit zeta	CCT6A	16	-	0.49
126	Q9BQE3	Tubulin alpha-1C chain	TUBA1C;TUBA1B	16	-	0.481
127	P78371	T-complex protein 1 subunit beta	CCT2	16	-	0.446
128	P54136	Arginine--tRNA ligase, cytoplasmic	RARS	16	-	0.43
129	P31150	Rab GDP dissociation inhibitor alpha	GDI1	16	-	0.429
130	Q9H4M9	EH domain-containing protein 1	EHD1	16	-	0.319
131	P11717	Cation-independent mannose-6-phosphate receptor	IGF2R	16	+	0.29

132	P49589-2	Cysteine--tRNA ligase, cytoplasmic	CARS	16	-	0.179
133	Q24JP5	Transmembrane protein 132A	TMEM132A	16	+	0.164
134	Q9UI42-2	Carboxypeptidase A4	CPA4	15	+	0.767
135	P07093-2	Glia-derived nexin	SERPINE2	15	+	0.68
136	Q9P2B2	Prostaglandin F2 receptor negative regulator	PTGFRN	15	+	0.62
137	Q6YHK3	CD109 antigen	CD109	15	+	0.6
138	P17987	T-complex protein 1 subunit alpha	TCP1	15	-	0.518
139	G3V1R5	Nardilysin	NRD1	15	-	0.475
140	P68363	Tubulin alpha-1B chain;Tubulin alpha-1A chain;Tubulin alpha-3C/D chain;Tubulin alpha-3E chain	TUBA1B;TUBA1A; TUBA3C;TUBA3E	15	-	0.472
141	P13010	X-ray repair cross-complementing protein 5	XRCC5	15	-	0.447
142	P35237	Serpin B6	SERPINB6	15	-	0.44
143	B4DQJ8	6-phosphogluconate dehydrogenase, decarboxylating	PGD	15	-	0.43
144	Q9Y262	Eukaryotic translation initiation factor 3 subunit L	EIF3L	15	-	0.383
145	Q86Y38	Xylosyltransferase 1	XYLT1	15	+	0.381
146	P30041	Peroxiredoxin-6	PRDX6	15	-	0.378
147	O15144	Actin-related protein 2/3 complex subunit 2	ARPC2	15	-	0.36
148	Q9Y230	RuvB-like 2	RUVBL2	15	-	0.344
149	P26639	Threonine--tRNA ligase, cytoplasmic	TARS	15	-	0.337
150	P08123	Collagen alpha-2(I) chain	COL1A2	15	+	0.337
151	P53621	Coatomer subunit alpha;Xenin;Proxenin	COPA	15	-	0.331
152	P38646	Stress-70 protein, mitochondrial	HSPA9	15	-	0.28
153	O75643	U5 small nuclear ribonucleoprotein 200 kDa helicase	SNRNP200	15	-	0.268
154	P02452	Collagen alpha-1(I) chain	COL1A1	15	+	0.206
155	P12081-4	Histidine--tRNA ligase, cytoplasmic	HARS	15	-	0.182
156	Q12906-5	Interleukin enhancer-binding factor 3	ILF3	15	-	0.066
157	P07686	Beta-hexosaminidase subunit beta;Beta-hexosaminidase subunit beta chain B;Beta-hexosaminidase subunit beta chain A	HEXB	14	+	0.712
158	P55058	Phospholipid transfer protein	PLTP	14	+	0.7
159	O14786-3	Neuropilin-1	NRP1	14	+	0.678
160	E7EW34	26S proteasome non-ATPase regulatory subunit 2	PSMD2	14	-	0.672
161	Q15393	Splicing factor 3B subunit 3	SF3B3	14	-	0.645
162	P14543-2	Nidogen-1	NID1	14	+	0.613
163	O14980	Exportin-1	XPO1	14	-	0.604
164	P09104	Gamma-enolase;Enolase	ENO2	14	-	0.599
165	P06576	ATP synthase subunit beta, mitochondrial;ATP synthase subunit beta	ATP5B	14	-	0.591
166	Q6P179-3	Endoplasmic reticulum aminopeptidase 2	ERAP2	14	-	0.578

167	P30153	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform	PPP2R1A	14	-	0.562
168	Q9H4A4	Aminopeptidase B	RNPEP	14	-	0.554
169	P08758	Annexin A5;Annexin	ANXA5	14	-	0.55
170	P05120	Plasminogen activator inhibitor 2	SERPINB2	14	-	0.536
171	B4DZI8	Coatomer subunit beta	COPB2	14	-	0.489
172	J3KN67	Tropomyosin alpha-3 chain	TPM3	14	-	0.486
173	P04406	Glyceraldehyde-3-phosphate dehydrogenase	GAPDH	14	-	0.467
174	P17174	Aspartate aminotransferase, cytoplasmic;Aspartate aminotransferase	GOT1	14	-	0.439
175	P78417	Glutathione S-transferase omega-1	GSTO1	14	-	0.435
176	Q01518	Adenylyl cyclase-associated protein 1	CAP1	14	-	0.429
177	P67936	Tropomyosin alpha-4 chain	TPM4	14	-	0.417
178	Q16363-2	Laminin subunit alpha-4	LAMA4	14	+	0.397
179	Q9NY33-4	Dipeptidyl peptidase 3	DPP3	14	-	0.392
180	P22392-2	Nucleoside diphosphate kinase B;Nucleoside diphosphate kinase	NME2; NME1-NME2	14	-	0.373
181	P27797	Calreticulin	CALR	14	+	0.366
182	Q5VU59	Tropomyosin alpha-3 chain	TPM3	14	-	0.365
183	P26641	Elongation factor 1-gamma	EEF1G	14	-	0.353
184	F5H335	Eukaryotic translation initiation factor 3 subunit A	EIF3A	14	-	0.337
185	P08133	Annexin A6;Annexin	ANXA6	14	-	0.334
186	G3V1S6	Polypeptide N-acetylgalactosaminyltransferase 2;Polypeptide N-acetylgalactosaminyltransferase 2 soluble form	GALNT2	14	-	0.316
187	P09874	Poly [ADP-ribose] polymerase 1	PARP1	14	-	0.112
188	P26022	Pentraxin-related protein PTX3	PTX3	13	+	0.755
189	P09871	Complement C1s subcomponent;Complement C1s subcomponent heavy chain;Complement C1s subcomponent light chain	C1S	13	+	0.73
190	Q16610	Extracellular matrix protein 1	ECM1	13	+	0.711
191	Q9Y4K0	Lysyl oxidase homolog 2	LOXL2	13	+	0.711
192	Q93063	Exostosin-2	EXT2	13	-	0.705
193	Q15113	Procollagen C-endopeptidase enhancer 1	PCOLCE	13	+	0.699
194	P00491	Purine nucleoside phosphorylase	PNP	13	-	0.509
195	A8MUB1	Tubulin alpha-4A chain;Tubulin alpha-8 chain	TUBA4A;TUBA8	13	-	0.501
196	P19021-4	Peptidyl-glycine alpha-amidating monooxygenase;Peptidylglycine alpha-hydroxylating monooxygenase;Peptidyl-alpha-hydroxyglycine alpha-amidating lyase	PAM	13	+	0.463
197	J3KR24	Isoleucine--tRNA ligase, cytoplasmic	IARS	13	-	0.461

198	P08195-2	4F2 cell-surface antigen heavy chain	SLC3A2	13	-	0.451
199	P26006	Integrin alpha-3;Integrin alpha-3 heavy chain;Integrin alpha-3 light chain	ITGA3	13	+	0.446
200	P42224	Signal transducer and activator of transcription 1-alpha/beta	STAT1	13	-	0.433
201	P11216	Glycogen phosphorylase, brain form	PYGB	13	-	0.422
202	E7ENZ3	T-complex protein 1 subunit epsilon	CCT5	13	-	0.404
203	J3KNT0	Fascin	FSCN1	13	-	0.395
204	P37837	Transaldolase	TALDO1	13	-	0.394
205	Q92626	Peroxidasin homolog	PXDN	13	+	0.385
206	Q01813	6-phosphofructokinase type C	PFKP	13	-	0.369
207	O95782-2	AP-2 complex subunit alpha-1	AP2A1	13	-	0.365
208	Q99832-3	T-complex protein 1 subunit eta	CCT7	13	-	0.354
209	Q92598-2	Heat shock protein 105 kDa	HSPH1	13	-	0.329
210	P63104	14-3-3 protein zeta/delta	YWHAZ	13	-	0.252
211	Q9UQ80	Proliferation-associated protein 2G4	PA2G4	13	-	0.201
212	Q15293	Reticulocalbin-1	RCN1	12	+	0.851
213	Q13162	Peroxiredoxin-4	PRDX4	12	+	0.724
214	P00736	Complement C1r subcomponent;Complement C1r subcomponent heavy chain;Complement C1r subcomponent light chain	C1R	12	+	0.697
215	B4DXW1	Actin-related protein 3	ACTR3	12	-	0.621
216	Q9ULV4	Coronin-1C;Coronin	CORO1C	12	-	0.584
217	B1AK87	F-actin-capping protein subunit beta	CAPZB	12	-	0.567
218	F5H365	Protein transport protein Sec23A	SEC23A	12	-	0.562
219	P32004-3	Neural cell adhesion molecule L1	L1CAM	12	+	0.561
220	P50991	T-complex protein 1 subunit delta	CCT4	12	-	0.535
221	P60228	Eukaryotic translation initiation factor 3 subunit E	EIF3E	12	-	0.5
222	Q14240	Eukaryotic initiation factor 4A-II	EIF4A2	12	-	0.494
223	P49368	T-complex protein 1 subunit gamma	CCT3	12	-	0.49
224	O75635-2	Serpin B7	SERPINB7	12	-	0.451
225	Q9Y266	Nuclear migration protein nudC	NUDC	12	-	0.448
226	Q9NTK5	Obg-like ATPase 1	OLA1	12	-	0.442
227	P33908	Mannosyl-oligosaccharide 1,2-alpha-mannosidase IA	MAN1A1	12	+	0.437
228	E9PG40	Amyloid beta A4 protein;N-APP;Soluble APP-alpha;Soluble APP-beta;C99;Beta-amyloid protein 42;Beta-amyloid protein 40;C83;P3(42);P3(40);C80;Gamma-secretase C-terminal fragment 59;Gamma-secretase C-terminal fragment 57;Gamma-secretase C-terminal fragment 50	APP	12	+	0.419
229	Q6IBS0	Twinfilin-2	TWF2	12	-	0.418

230	Q9Y265	RuvB-like 1	RUVBL1	12	-	0.402
231	Q9Y617	Phosphoserine aminotransferase	PSAT1	12	-	0.384
232	Q15008	26S proteasome non-ATPase regulatory subunit 6	PSMD6	12	-	0.363
233	P31948	Stress-induced-phosphoprotein 1	STIP1	12	-	0.344
234	Q96QK1	Vacuolar protein sorting-associated protein 35	VPS35	12	-	0.331
235	P11940-2	Polyadenylate-binding protein 1;Polyadenylate-binding protein 3	PABPC1;PABPC3	12	-	0.319
236	Q13219	Pappalysin-1	PAPPA	12	+	0.316
237	Q02790	Peptidyl-prolyl cis-trans isomerase FKBP4;Peptidyl-prolyl cis-trans isomerase FKBP4, N-terminally processed	FKBP4	12	-	0.287
238	Q12905	Interleukin enhancer-binding factor 2	ILF2	12	-	0.272
239	Q08211	ATP-dependent RNA helicase A	DHX9	12	-	0.27
240	P55884	Eukaryotic translation initiation factor 3 subunit B	EIF3B	12	-	0.263
241	Q9Y6N7-6	Roundabout homolog 1	ROBO1	12	+	0.245
242	P22626-2	Heterogeneous nuclear ribonucleoproteins A2/B1	HNRNPA2B1	12	-	0.099
243	P46821	Microtubule-associated protein 1B;MAP1B heavy chain;MAP1 light chain LC1	MAP1B	12	-	0.088
244	P01009	Alpha-1-antitrypsin;Short peptide from AAT	SERPINA1	11	+	0.852
245	P37802	Transgelin-2	TAGLN2	11	-	0.784
246	H3BS10	Beta-hexosaminidase;Beta-hexosaminidase subunit alpha	HEXA	11	+	0.693
247	P09493-3	Tropomyosin alpha-1 chain	TPM1	11	-	0.659
248	P40926	Malate dehydrogenase, mitochondrial;Malate dehydrogenase	MDH2	11	-	0.644
249	P16152	Carbonyl reductase [NADPH] 1	CBR1	11	-	0.633
250	Q92820	Gamma-glutamyl hydrolase	GGH	11	+	0.628
251	Q9BRK5	45 kDa calcium-binding protein	SDF4	11	+	0.591
252	P09936	Ubiquitin carboxyl-terminal hydrolase isozyme L1	UCHL1	11	-	0.53
253	Q06830	Peroxiredoxin-1	PRDX1	11	-	0.528
254	O95394	Phosphoacetylglucosamine mutase	PGM3	11	-	0.512
255	P68133	Actin, alpha skeletal muscle;Actin, alpha cardiac muscle 1;Actin, gamma-enteric smooth muscle;Actin, aortic smooth muscle	ACTA1;ACTC1; ACTG2;ACTA2	11	-	0.504
256	Q15782-6	Chitinase-3-like protein 2	CHI3L2	11	-	0.49
257	P05556	Integrin beta-1	ITGB1	11	+	0.474
258	P40925	Malate dehydrogenase, cytoplasmic	MDH1	11	-	0.455
259	Q96G03	Phosphoglucomutase-2	PGM2	11	-	0.414
260	P25786	Proteasome subunit alpha type-1;Proteasome subunit alpha type	PSMA1	11	-	0.371
261	P15531	Nucleoside diphosphate kinase A	NME1	11	-	0.361
262	Q15046	Lysine--tRNA ligase	KARS	11	-	0.317
263	Q96TA1-2	Niban-like protein 1	FAM129B	11	-	0.312

264	P14868	Aspartate--tRNA ligase, cytoplasmic	DARS; DKFZp781B11202	11	-	0.308
265	Q58FF8	Putative heat shock protein HSP 90-beta 2	HSP90AB2P	11	-	0.295
266	P26640	Valine--tRNA ligase	VARS	11	-	0.269
267	I3L397	Eukaryotic translation initiation factor 5A-1;Eukaryotic translation initiation factor 5A-2;Eukaryotic translation initiation factor 5A-1-like	EIF5A;EIF5A2; EIF5AL1	11	-	0.26
268	P19022	Cadherin-2	CDH2	11	+	0.203
269	P05198	Eukaryotic translation initiation factor 2 subunit 1	EIF2S1	11	-	0.113
270	P09486	SPARC	SPARC	10	+	0.942
271	Q92743	Serine protease HTRA1	HTRA1	10	+	0.772
272	P10909-4	Clusterin;Clusterin beta chain;Clusterin alpha chain;Clusterin	CLU	10	-	0.767
273	P21589	5-nucleotidase	NT5E	10	+	0.764
274	P21810	Biglycan	BGN	10	+	0.714
275	P30086	Phosphatidylethanolamine-binding protein 1;Hippocampal cholinergic neurostimulating peptide	PEBP1	10	-	0.672
276	P06748-2	Nucleophosmin	NPM1	10	-	0.658
277	P16930	Fumarylacetoacetase	FAH; DKFZp686F13224	10	-	0.582
278	P25705	ATP synthase subunit alpha, mitochondrial	ATP5A1	10	-	0.574
279	Q01995	Transgelin	TAGLN	10	-	0.56
280	P07384	Calpain-1 catalytic subunit	CAPN1	10	-	0.554
281	O75874	Isocitrate dehydrogenase [NADP] cytoplasmic	IDH1	10	-	0.547
282	P13798	Acylamino-acid-releasing enzyme	APEH	10	-	0.547
283	Q14766-3	Latent-transforming growth factor beta-binding protein 1	LTBP1	10	+	0.531
284	P04062-4	Glucosylceramidase	GBA	10	-	0.525
285	Q16222-3	UDP-N-acetylhexosamine pyrophosphorylase;UDP-N-acetylgalactosamine pyrophosphorylase;UDP-N-acetylglucosamine pyrophosphorylase	UAP1	10	-	0.524
286	Q13838	Spliceosome RNA helicase DDX39B	DDX39B	10	-	0.509
287	P00505	Aspartate aminotransferase, mitochondrial	GOT2	10	+	0.505
288	P22234	Multifunctional protein ADE2;Phosphoribosylaminoimidazole-succinocarboxamide synthase;Phosphoribosylaminoimidazole carboxylase	PAICS	10	-	0.502
289	P07954-2	Fumarate hydratase, mitochondrial	FH	10	-	0.493
290	P23396	40S ribosomal protein S3	RPS3	10	-	0.49
291	P07737	Profilin-1	PFN1	10	-	0.469
292	B4DDG7	AP-1 complex subunit mu-1	AP1M1	10	-	0.454
293	F5GWP8	NA	JUP	10	-	0.446
294	Q96KP4	Cytosolic non-specific dipeptidase	CNDP2	10	-	0.443

295	P16870-2	Carboxypeptidase E	CPE	10	-	0.379
296	P31946-2	14-3-3 protein beta/alpha;14-3-3 protein beta/alpha, N-terminally processed	YWHAB	10	-	0.371
297	P00367	Glutamate dehydrogenase 1, mitochondrial;Glutamate dehydrogenase;Glutamate dehydrogenase 2, mitochondrial	GLUD1;GLUD2	10	-	0.363
298	P28482	Mitogen-activated protein kinase 1	MAPK1	10	-	0.352
299	Q16851-2	UTP--glucose-1-phosphate uridylyltransferase	UGP2	10	-	0.342
300	P62937	Peptidyl-prolyl cis-trans isomerase A;Peptidyl-prolyl cis-trans isomerase A, N-terminally processed;Peptidyl-prolyl cis-trans isomerase	PPIA	10	-	0.339
301	P46926	Glucosamine-6-phosphate isomerase 1	GNPDA1	10	-	0.333
302	P25787	Proteasome subunit alpha type-2	PSMA2	10	-	0.33
303	B4DJ10	Leucine--tRNA ligase, cytoplasmic	LARS	10	-	0.311
304	Q13616	Cullin-1	CUL1	10	-	0.278
305	P48444	Coatomer subunit delta	ARCN1	10	-	0.256
306	O14818	Proteasome subunit alpha type-7;Proteasome subunit alpha type-7-like	PSMA7;PSMA8	10	-	0.248
307	O00231	26S proteasome non-ATPase regulatory subunit 11	PSMD11	10	-	0.244
308	Q92841-1	Probable ATP-dependent RNA helicase DDX17	DDX17	10	-	0.237
309	P09651-3	Heterogeneous nuclear ribonucleoprotein A1;Heterogeneous nuclear ribonucleoprotein A1-like 2	HNRNPA1; HNRNPA1L2	10	-	0.153
310	P98160	Basement membrane-specific heparan sulfate proteoglycan core protein;Endorepellin;LG3 peptide	HSPG2	10	NA	NA
311	P50454	Serpin H1	SERPINH1	9	+	0.864
312	P23284	Peptidyl-prolyl cis-trans isomerase B	PPIB	9	+	0.853
313	P08476	Inhibin beta A chain	INHBA	9	+	0.814
314	P07602	Proactivator polypeptide;Saposin-A;Saposin-B-Val;Saposin-B;Saposin-C;Saposin-D	PSAP	9	+	0.785
315	P07858	Cathepsin B;Cathepsin B light chain;Cathepsin B heavy chain	CTSB	9	+	0.77
316	O14773	Tripeptidyl-peptidase 1	TPP1	9	+	0.746
317	P48723	Heat shock 70 kDa protein 13	HSPA13	9	+	0.666
318	Q9UJ70	N-acetyl-D-glucosamine kinase	NAGK	9	-	0.664
319	P23528	Cofilin-1	CFL1	9	-	0.628
320	B4DJV2	Citrate synthase;Citrate synthase, mitochondrial	CS	9	-	0.602
321	Q96AY3	Peptidyl-prolyl cis-trans isomerase FKBP10	FKBP10	9	+	0.589
322	Q15437	Protein transport protein Sec23B	SEC23B	9	-	0.579
323	P51884	Lumican	LUM	9	+	0.543
324	O76003	Glutaredoxin-3	GLRX3	9	-	0.542
325	O95373	Importin-7	IPO7	9	-	0.532

326	Q16270-2	Insulin-like growth factor-binding protein 7	IGFBP7	9	+	0.525
327	P30740	Leukocyte elastase inhibitor	SERPINB1	9	-	0.516
328	Q99497	Protein DJ-1	PARK7	9	-	0.493
329	P41250	Glycine--tRNA ligase	GARS	9	+	0.483
330	P52907	F-actin-capping protein subunit alpha-1	CAPZA1	9	-	0.48
331	P51858	Hepatoma-derived growth factor	HDGF	9	-	0.477
332	Q8WVQ1-3	Soluble calcium-activated nucleotidase 1	CANT1	9	-	0.47
333	Q13740-2	CD166 antigen	ALCAM	9	+	0.461
334	P47755	F-actin-capping protein subunit alpha-2	CAPZA2	9	-	0.454
335	Q16181-2	Septin-7	SEPT7	9	-	0.448
336	O95433	Activator of 90 kDa heat shock protein ATPase homolog 1	AHSA1	9	-	0.431
337	P26599	Polypyrimidine tract-binding protein 1	PTBP1	9	-	0.415
338	P17812	CTP synthase 1	CTPS1	9	-	0.388
339	Q9UL46	Proteasome activator complex subunit 2	PSME2	9	-	0.363
340	P09972	Fructose-bisphosphate aldolase C;Fructose-bisphosphate aldolase	ALDOC	9	-	0.323
341	P61160	Actin-related protein 2	ACTR2	9	-	0.311
342	P17066	Heat shock 70 kDa protein 6;Putative heat shock 70 kDa protein 7	HSPA6;HSPA7	9	-	0.269
343	P25788-2	Proteasome subunit alpha type-3	PSMA3	9	-	0.245
344	Q9UKK9	ADP-sugar pyrophosphatase	NUDT5	9	-	0.188
345	Q06323	Proteasome activator complex subunit 1	PSME1	9	-	0.17
346	Q5VTE0	Putative elongation factor 1-alpha-like 3;Elongation factor 1-alpha 1	EEF1A1P5; EEF1A1	9	-	0.154
347	Q8WUM4	Programmed cell death 6-interacting protein	PDCD6IP	9	-	0.143
348	P51665	26S proteasome non-ATPase regulatory subunit 7	PSMD7	9	-	0.13
349	B5MCX3	Septin-2	SEPT2	9	-	0.13
350	D6RGI3	Septin-11	SEPT11	9	-	0.067
351	P20908	Collagen alpha-1(V) chain	COL5A1	9	+	0.053
352	X6RKN2	Neurofascin	NFASC	9	NA	NA
353	Q9Y240	C-type lectin domain family 11 member A	CLEC11A	8	+	0.873
354	Q8NBJ7	Sulfatase-modifying factor 2	SUMF2	8	+	0.796
355	Q16769	Glutaminyl-peptide cyclotransferase	QPCT	8	+	0.788
356	Q9BTY2	Plasma alpha-L-fucosidase	FUCA2	8	+	0.779
357	O43854-2	EGF-like repeat and discoidin I-like domain-containing protein 3	EDIL3	8	+	0.762
358	P07339	Cathepsin D;Cathepsin D light chain;Cathepsin D heavy chain	CTSD	8	+	0.758
359	P28074	Proteasome subunit beta type-5	PSMB5	8	-	0.726
360	P35998	26S protease regulatory subunit 7	PSMC2	8	-	0.713
361	Q7Z304	MAM domain-containing protein 2	MAMDC2	8	+	0.701

362	Q15084-3	Protein disulfide-isomerase A6	PDIA6	8	+	0.695
363	Q9HB71	Calcyclin-binding protein	CACYBP	8	-	0.69
364	P05023-3	Sodium/potassium-transporting ATPase subunit alpha-1	ATP1A1	8	-	0.673
365	P62333	26S protease regulatory subunit 10B	PSMC6	8	-	0.619
366	Q8TF66	Leucine-rich repeat-containing protein 15	LRRC15	8	+	0.606
367	P62826	GTP-binding nuclear protein Ran	RAN	8	-	0.582
368	Q96P70	Importin-9	IPO9	8	-	0.572
369	P31153	S-adenosylmethionine synthase isoform type-2;S-adenosylmethionine synthase	MAT2A	8	-	0.552
370	Q9BT78	COP9 signalosome complex subunit 4	COPS4	8	-	0.55
371	Q9UNM6	26S proteasome non-ATPase regulatory subunit 13	PSMD13	8	-	0.527
372	Q9NZL9	Methionine adenosyltransferase 2 subunit beta	MAT2B	8	-	0.519
373	P17655	Calpain-2 catalytic subunit	CAPN2	8	-	0.506
374	Q13822	Ectonucleotide pyrophosphatase/phosphodiesterase family member 2	ENPP2	8	+	0.488
375	P20618	Proteasome subunit beta type-1	PSMB1	8	-	0.473
376	Q86UY0	Thioredoxin domain-containing protein 5	TXNDC5	8	-	0.465
377	B4DIH5	COP9 signalosome complex subunit 2	COPS2	8	-	0.463
378	Q04828	Aldo-keto reductase family 1 member C1;Aldo-keto reductase family 1 member C2;Aldo-keto reductase family 1 member C3	AKR1C1;AKR1C2;AKR1C3	8	-	0.461
379	Q14112-2	Nidogen-2	NID2	8	-	0.46
380	B7Z1R5	V-type proton ATPase catalytic subunit A	ATP6V1A	8	-	0.442
381	P41091	Eukaryotic translation initiation factor 2 subunit 3;Putative eukaryotic translation initiation factor 2 subunit 3-like protein	EIF2S3; EIF2S3L	8	-	0.44
382	P40121	Macrophage-capping protein	CAPG	8	-	0.439
383	P04179-4	Superoxide dismutase [Mn], mitochondrial	SOD2	8	-	0.43
384	C9J9K3	40S ribosomal protein SA	RPSA; RPSAP58	8	-	0.428
385	P23381-2	Tryptophan--tRNA ligase, cytoplasmic;T1-TrpRS;T2-TrpRS	WARS	8	-	0.426
386	E9PKG1	Protein arginine N-methyltransferase 1	PRMT1	8	-	0.416
387	P22676	Calretinin	CALB2	8	-	0.416
388	Q9NUQ9	Protein FAM49B	FAM49B	8	-	0.414
389	F5H4L7	Vacuolar protein sorting-associated protein 26A	VPS26A	8	-	0.413
390	P29144	Tripeptidyl-peptidase 2	TPP2	8	-	0.413
391	P46063	ATP-dependent DNA helicase Q1	RECQL	8	-	0.4
392	P27694	Replication protein A 70 kDa DNA-binding subunit;Replication protein A 70 kDa DNA-binding subunit, N-terminally processed	RPA1	8	-	0.393
393	P35555	Fibrillin-1	FBN1	8	+	0.391

394	P11586	C-1-tetrahydrofolate synthase, cytoplasmic;Methylenetetrahydrofolate dehydrogenase;Methenyltetrahydrofolate cyclohydrolase; Formyltetrahydrofolate synthetase;C-1-tetrahydrofolate synthase, cytoplasmic, N-terminally processed	MTHFD1	8	-	0.382
395	P08243-2	Asparagine synthetase [glutamine-hydrolyzing]	ASNS	8	-	0.364
396	Q15262	Receptor-type tyrosine-protein phosphatase kappa	PTPRK	8	+	0.36
397	F5H4X1	General vesicular transport factor p115	USO1	8	-	0.346
398	O00232	26S proteasome non-ATPase regulatory subunit 12	PSMD12	8	-	0.315
399	P61981	14-3-3 protein gamma;14-3-3 protein gamma, N-terminally processed	YWHAG	8	-	0.29
400	Q06481-5	Amyloid-like protein 2	APLP2	8	+	0.267
401	P27348	14-3-3 protein theta	YWHAQ	8	-	0.256
402	Q12907	Vesicular integral-membrane protein VIP36	LMAN2	8	+	0.222
403	P33176	Kinesin-1 heavy chain	KIF5B	8	-	0.202
404	P07910-4	Heterogeneous nuclear ribonucleoproteins C1/C2;Heterogeneous nuclear ribonucleoprotein C-like 1	HNRNPC; HNRNPCL1	8	-	0.114
405	P05141	ADP/ATP translocase 2;ADP/ATP translocase 2, N-terminally processed	SLC25A5	8	-	0.03
406	Q96D15	Reticulocalbin-3	RCN3	7	+	0.95
407	O95502	Neuronal pentraxin receptor	NPTXR	7	+	0.88
408	P54819-2	Adenylate kinase 2, mitochondrial;Adenylate kinase 2, mitochondrial, N-terminally processed	AK2	7	-	0.877
409	O95336	6-phosphogluconolactonase	PGLS	7	-	0.87
410	O00303	Eukaryotic translation initiation factor 3 subunit F	EIF3F	7	-	0.824
411	O00462	Beta-mannosidase	MANBA	7	+	0.776
412	P17931	Galectin-3	LGALS3	7	-	0.77
413	P00492	Hypoxanthine-guanine phosphoribosyltransferase	HPRT1	7	-	0.767
414	Q14019	Coactosin-like protein	COTL1	7	-	0.765
415	Q96HE7	ERO1-like protein alpha	ERO1L	7	+	0.746
416	E7EU96	Casein kinase II subunit alpha;Casein kinase II subunit alpha 3	CSNK2A1; CSNK2A3	7	-	0.741
417	Q9BWS9-3	Chitinase domain-containing protein 1	CHID1	7	+	0.731
418	O15372	Eukaryotic translation initiation factor 3 subunit H	EIF3H;EIF3S3	7	-	0.702
419	P10451-3	Osteopontin	SPP1	7	+	0.697
420	E7EMB6	Aspartyl aminopeptidase	DNPEP	7	-	0.671
421	O95861-4	3(2),5-bisphosphate nucleotidase 1	BPNT1	7	-	0.65
422	Q12792-4	Twinfilin-1	TWF1	7	-	0.638
423	P61086	Ubiquitin-conjugating enzyme E2 K	UBE2K	7	-	0.627

424	G3V3M6	DNA-(apurinic or apyrimidinic site) lyase;DNA-(apurinic or apyrimidinic site) lyase, mitochondrial	APEX1	7	-	0.622
425	Q09028-3	Histone-binding protein RBBP4	RBBP4	7	-	0.618
426	B4DTT5	Follistatin-related protein 1	FSTL1	7	+	0.61
427	P30085	UMP-CMP kinase	CMPK1	7	-	0.604
428	P55290	Cadherin-13	CDH13	7	+	0.601
429	H0YHC3	Nucleosome assembly protein 1-like 1	NAP1L1	7	-	0.6
430	P00390-2	Glutathione reductase, mitochondrial	GSR	7	-	0.591
431	P28062-2	Proteasome subunit beta type-8	PSMB8	7	-	0.588
432	O00754-2	Lysosomal alpha-mannosidase;Lysosomal alpha-mannosidase A peptide;Lysosomal alpha-mannosidase B peptide;Lysosomal alpha-mannosidase C peptide;Lysosomal alpha-mannosidase D peptide;Lysosomal alpha-mannosidase E peptide	MAN2B1	7	-	0.588
433	P29218	Inositol monophosphatase 1	IMPA1	7	-	0.577
434	P28070	Proteasome subunit beta type-4	PSMB4	7	-	0.565
435	Q15404	Ras suppressor protein 1	RSU1	7	-	0.562
436	P53004	Biliverdin reductase A	BLVRA	7	-	0.543
437	Q13347	Eukaryotic translation initiation factor 3 subunit I	EIF3I	7	-	0.54
438	P29692	Elongation factor 1-delta	EEF1D	7	-	0.529
439	P32119	Peroxiredoxin-2	PRDX2	7	-	0.522
440	Q08257	Quinone oxidoreductase	CRYZ	7	-	0.511
441	P04083	Annexin A1	ANXA1	7	-	0.511
442	Q8TDQ7	Glucosamine-6-phosphate isomerase 2	GNPDA2	7	-	0.508
443	Q99536	Synaptic vesicle membrane protein VAT-1 homolog	VAT1	7	-	0.491
444	Q09328	Alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A	MGAT5	7	+	0.486
445	Q92973-2	Transportin-1	TNPO1	7	-	0.486
446	Q9UMS4	Pre-mRNA-processing factor 19	PRPF19	7	-	0.482
447	Q96CG1	Eukaryotic peptide chain release factor subunit 1	ETF1	7	-	0.468
448	Q99436	Proteasome subunit beta type-7	PSMB7	7	-	0.467
449	P78539-3	Sushi repeat-containing protein SRPX	SRPX	7	+	0.46
450	E7EP00	Protein transport protein Sec24C	SEC24C	7	-	0.454
451	P21283	V-type proton ATPase subunit C 1	ATP6V1C1	7	-	0.436
452	P60900	Proteasome subunit alpha type-6;Proteasome subunit alpha type	PSMA6	7	-	0.429
453	Q5T7C4	High mobility group protein B1;Putative high mobility group protein B1-like 1	HMGB1;HMGB1P1	7	-	0.427
454	Q5H9A7	Metalloproteinase inhibitor 1	TIMP1	7	-	0.412
455	O00299	Chloride intracellular channel protein 1	CLIC1	7	-	0.395
456	E9PP73	Coatomer subunit beta	COPB1	7	-	0.385

457	O43143	Putative pre-mRNA-splicing factor ATP-dependent RNA helicase DHX15	DHX15	7	-	0.382
458	Q9Y678	Coatomer subunit gamma-1	COPG1	7	-	0.381
459	Q16394	Exostosin-1	EXT1	7	+	0.371
460	A5A3E0	POTE ankyrin domain family member F;POTE ankyrin domain family member E;POTE ankyrin domain family member I;POTE ankyrin domain family member J	POTEF;POTEE; POTEI;POTEJ	7	-	0.364
461	O43242	26S proteasome non-ATPase regulatory subunit 3	PSMD3	7	-	0.358
462	F5GYN4	Ubiquitin thioesterase OTUB1	OTUB1	7	-	0.343
463	Q08629	Testican-1	SPOCK1	7	+	0.271
464	P55268	Laminin subunit beta-2	LAMB2	7	+	0.261
465	H3BRV0	Eukaryotic translation initiation factor 3 subunit C;Eukaryotic translation initiation factor 3 subunit C-like protein	EIF3C;EIF3CL	7	-	0.258
466	P61326	Protein mago nashi homolog	MAGOH; MAGOHB	7	-	0.256
467	P49591	Serine--tRNA ligase, cytoplasmic	SARS	7	-	0.229
468	E9PGT1	Translin	TSN	7	-	0.226
469	P25789	Proteasome subunit alpha type-4;Proteasome subunit alpha type;Proteasome subunit beta type	PSMA4	7	-	0.209
470	Q92859-3	Neogenin	NEO1	7	+	0.184
471	D6R9P3	Heterogeneous nuclear ribonucleoprotein A/B	HNRNPAB	7	-	0.183
472	P05388	60S acidic ribosomal protein P0;60S acidic ribosomal protein P0-like	RPLP0;RPLP0P6	7	-	0.15
473	Q58FF6	Putative heat shock protein HSP 90-beta 4	HSP90AB4P	7	-	0.139
474	Q99733	Nucleosome assembly protein 1-like 4	NAP1L4	7	-	0.12
475	Q14118	Dystroglycan;Alpha-dystroglycan;Beta-dystroglycan	DAG1	7	+	0.11
476	H0YA96	Heterogeneous nuclear ribonucleoprotein D0	HNRNPD	7	-	0.1
477	O43390	Heterogeneous nuclear ribonucleoprotein R	HNRNPR;HNRPR	7	-	0.077
478	P01034	Cystatin-C	CST3	6	+	0.937
479	P30040	Endoplasmic reticulum resident protein 29	ERP29	6	+	0.933
480	P52823	Stanniocalcin-1	STC1	6	+	0.911
481	P01137	Transforming growth factor beta-1;Latency-associated peptide	TGFB1	6	+	0.868
482	P30043	Flavin reductase (NADPH)	BLVRB	6	-	0.834
483	O15460-2	Prolyl 4-hydroxylase subunit alpha-2	P4HA2	6	+	0.797
484	B3KWK7	Insulin-like growth factor-binding protein 3	IGFBP3	6	-	0.778
485	O00622	Protein CYR61	CYR61	6	+	0.772
486	P50502	Hsc70-interacting protein;Putative protein FAM10A5;Putative protein FAM10A4	ST13;ST13P5; ST13P4	6	-	0.765

487	P15291-2	Beta-1,4-galactosyltransferase 1;Lactose synthase A protein;N-acetyllactosamine synthase;Beta-N-acetylglucosaminylglycopeptide beta-1,4-galactosyltransferase;Beta-N-acetylglucosaminyl-glycolipid beta-1,4-galactosyltransferase;Processed beta-1,4-galactosyl	B4GALT1	6	+	0.764
488	F8VZY9	Keratin, type I cytoskeletal 18	KRT18	6	-	0.763
489	P62249	40S ribosomal protein S16	RPS16	6	-	0.735
490	B5MCZ3	Interleukin-6	IL6	6	-	0.71
491	P42785	Lysosomal Pro-X carboxypeptidase	PRCP	6	+	0.71
492	Q7Z4H8	KDEL motif-containing protein 2	KDELC2	6	+	0.709
493	P36551	Coproporphyrinogen-III oxidase, mitochondrial	CPOX	6	-	0.696
494	Q9H488	GDP-fucose protein O-fucosyltransferase 1	POFUT1	6	+	0.686
495	P62158	Calmodulin	CALM1;CALM2; CALM3	6	-	0.676
496	Q9UNS2	COP9 signalosome complex subunit 3	COPS3	6	-	0.655
497	Q96IU4	Alpha/beta hydrolase domain-containing protein 14B	ABHD14B	6	-	0.639
498	P62906	60S ribosomal protein L10a	RPL10A	6	-	0.637
499	Q9UIJ7	GTP:AMP phosphotransferase AK3, mitochondrial	AK3	6	-	0.627
500	E9PC52	Histone-binding protein RBBP7	RBBP7	6	-	0.624
501	Q53FA7	Quinone oxidoreductase PIG3	TP53I3	6	-	0.622
502	P02794	Ferritin heavy chain;Ferritin	FTH1	6	-	0.621
503	A6NJA2	Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase 14	USP14	6	-	0.62
504	Q9Y696	Chloride intracellular channel protein 4	CLIC4	6	-	0.612
505	P19105	Myosin regulatory light chain 12A;Myosin regulatory light chain 12B	MYL12A; MYL12B	6	-	0.607
506	J3QS39	Ubiquitin-60S ribosomal protein L40;Ubiquitin;60S ribosomal protein L40;Ubiquitin-40S ribosomal protein S27a;Ubiquitin;40S ribosomal protein S27a;Polyubiquitin-B;Ubiquitin;Polyubiquitin-C;Ubiquitin	UBB;RPS27A;UBC; UBA52;UBBP4	6	-	0.601
507	B4DIT7	Protein-glutamine gamma-glutamyltransferase 2	TGM2	6	-	0.586
508	P13693	Translationally-controlled tumor protein	TPT1	6	-	0.581
509	B4DT69	Dihydrolipoyl dehydrogenase;Dihydrolipoyl dehydrogenase, mitochondrial	DLD	6	-	0.579
510	P62136	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit;Serine/threonine-protein phosphatase	PPP1CA	6	-	0.576
511	P52292	Importin subunit alpha-1	KPNA2	6	-	0.561
512	P30566	Adenylosuccinate lyase	ADSL	6	-	0.558
513	P12955-2	Xaa-Pro dipeptidase	PEPD	6	-	0.554
514	P07108	Acyl-CoA-binding protein	DBI	6	-	0.546
515	P09211	Glutathione S-transferase P	GSTP1	6	-	0.545

516	P56192	Methionine--tRNA ligase, cytoplasmic	MARS	6	-	0.541
517	Q13564-3	NEDD8-activating enzyme E1 regulatory subunit	NAE1	6	-	0.54
518	Q9Y3I0	tRNA-splicing ligase RtcB homolog	C22orf28	6	-	0.535
519	P01130-2	Low-density lipoprotein receptor	LDLR	6	+	0.534
520	P13611-4	Versican core protein	VCAN	6	+	0.534
521	P62191	26S protease regulatory subunit 4	PSMC1	6	-	0.528
522	P54687-4	Branched-chain-amino-acid aminotransferase, cytosolic	BCAT1	6	-	0.526
523	P22102	Trifunctional purine biosynthetic protein adenosine-3;Phosphoribosylamine--glycine ligase;Phosphoribosylformylglycinamidine cyclo-ligase;Phosphoribosylglycinamide formyltransferase	GART	6	-	0.526
524	K7EJR3	26S proteasome non-ATPase regulatory subunit 8	PSMD8	6	-	0.519
525	P22061	Protein-L-isoaspartate(D-aspartate) O-methyltransferase;Protein-L-isoaspartate O-methyltransferase	PCMT1	6	-	0.515
526	Q00796	Sorbitol dehydrogenase	SORD	6	-	0.511
527	P07585	Decorin	DCN	6	+	0.506
528	Q06210-2	Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 1	GFPT1	6	-	0.503
529	P13796	Plastin-2	LCP1	6	-	0.502
530	P15018	Leukemia inhibitory factor	LIF	6	+	0.501
531	P07225	Vitamin K-dependent protein S	PROS1	6	+	0.5
532	P14550	Alcohol dehydrogenase [NADP(+)]	AKR1A1	6	-	0.49
533	P28066	Proteasome subunit alpha type-5	PSMA5	6	-	0.485
534	B7Z403	Glyoxalase domain-containing protein 4	GLOD4	6	-	0.478
535	P48307	Tissue factor pathway inhibitor 2	TFPI2	6	+	0.473
536	C9JFR7	Cytochrome c	CYCS	6	-	0.47
537	P63244	Guanine nucleotide-binding protein subunit beta-2-like 1	GNB2L1	6	-	0.465
538	P47897	Glutamine--tRNA ligase	QARS	6	-	0.462
539	H0Y2X5	Aldehyde dehydrogenase family 1 member A3	ALDH1A3	6	-	0.459
540	B4E0K5	Mitogen-activated protein kinase 14	MAPK14	6	-	0.456
541	P49915	GMP synthase [glutamine-hydrolyzing]	GMPS	6	-	0.456
542	P30520	Adenylosuccinate synthetase isozyme 2	ADSS	6	-	0.453
543	E9PD78	Ribonucleoside-diphosphate reductase;Ribonucleoside-diphosphate reductase large subunit	RRM1	6	-	0.444
544	Q5T2B5	Cullin-2	CUL2	6	-	0.436
545	O60701	UDP-glucose 6-dehydrogenase	UGDH	6	-	0.434
546	Q86TI2-4	Dipeptidyl peptidase 9	DPP9	6	-	0.425
547	F8W1R7	Myosin light polypeptide 6	MYL6	6	-	0.423
548	Q13308-4	Inactive tyrosine-protein kinase 7	PTK7	6	+	0.418

549	Q7L576	Cytoplasmic FMR1-interacting protein 1	CYFIP1	6	-	0.41
550	P62805	Histone H4	HIST1H4A	6	-	0.408
551	H7BZJ3	Thioredoxin	PDIA3	6	-	0.407
552	P49721	Proteasome subunit beta type-2	PSMB2	6	-	0.398
553	P52888	Thimet oligopeptidase	THOP1	6	-	0.374
554	Q04917	14-3-3 protein eta	YWHAH	6	-	0.362
555	Q14203-5	Dynactin subunit 1	DCTN1; DKFZp686E0752	6	-	0.35
556	P09382	Galectin-1	LGALS1	6	-	0.345
557	P14324-2	Farnesyl pyrophosphate synthase	FDPS	6	-	0.345
558	G5EA52	Protein disulfide-isomerase A3	PDIA3	6	-	0.331
559	P10155-3	60 kDa SS-A/Ro ribonucleoprotein	TROVE2	6	-	0.331
560	P23246	Splicing factor, proline- and glutamine-rich	SFPQ	6	-	0.318
561	Q99460-2	26S proteasome non-ATPase regulatory subunit 1	PSMD1	6	-	0.315
562	Q5T6W5	Heterogeneous nuclear ribonucleoprotein K	HNRNPK	6	-	0.31
563	Q9BS26	Endoplasmic reticulum resident protein 44	ERP44	6	+	0.309
564	Q03252	Lamin-B2	LMNB2	6	-	0.286
565	Q9BXJ9	N-alpha-acetyltransferase 15, NatA auxiliary subunit	NAA15	6	-	0.285
566	P20591	Interferon-induced GTP-binding protein Mx1;Interferon-induced GTP-binding protein Mx1, N-terminally processed	MX1	6	-	0.211
567	Q8IUX7-2	Adipocyte enhancer-binding protein 1	AEBP1	6	-	0.195
568	P32455	Interferon-induced guanylate-binding protein 1	GBP1	6	-	0.193
569	H0YN26	Acidic leucine-rich nuclear phosphoprotein 32 family member A	ANP32A	6	-	0.175
570	P54727	UV excision repair protein RAD23 homolog B	RAD23B	6	-	0.148
571	Q01105-3	Protein SET	SET	6	-	0.138
572	Q14980-4	Nuclear mitotic apparatus protein 1	NUMA1	6	+	0.098
573	Q14517	Protocadherin Fat 1;Protocadherin Fat 1, nuclear form	FAT1	6	NA	NA
574	O43505	N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase	B3GNT1	5	+	0.914
575	P61769	Beta-2-microglobulin;Beta-2-microglobulin form pI 5.3	B2M	5	+	0.907
576	Q969H8	UPF0556 protein C19orf10	C19orf10	5	+	0.906
577	P10619-2	Lysosomal protective protein;Lysosomal protective protein 32 kDa chain;Lysosomal protective protein 20 kDa chain	CTSA	5	+	0.904
578	Q15819	Ubiquitin-conjugating enzyme E2 variant 2;Ubiquitin-conjugating enzyme E2 variant 1	UBE2V2; UBE2V1	5	-	0.878
579	J3KTF8	Rho GDP-dissociation inhibitor 1	ARHGDIA	5	-	0.876
580	Q92520	Protein FAM3C	FAM3C	5	+	0.821
581	C9JXF9	Insulin-like growth factor-binding protein 1	IGFBP1	5	+	0.818

582	F5GZK1	Exostosin-like 2;Processed exostosin-like 2	EXTL2	5	+	0.814
583	P25774	Cathepsin S	CTSS	5	+	0.805
584	C9JTY3	Protein TFG	TFG	5	-	0.784
585	P42126-2	Enoyl-CoA delta isomerase 1, mitochondrial	ECI1;DCI	5	-	0.762
586	Q8NBJ5	Procollagen galactosyltransferase 1	COLGALT1	5	+	0.759
587	P67809	Nuclease-sensitive element-binding protein 1;Y-box-binding protein 3;Y-box-binding protein 2	YBX1;YBX3;YBX2	5	-	0.733
588	P61088	Ubiquitin-conjugating enzyme E2 N;Putative ubiquitin-conjugating enzyme E2 N-like	UBE2N;UBE2NL	5	-	0.73
589	Q11201	CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,3-sialyltransferase 1	ST3GAL1	5	+	0.715
590	Q6ZNF0	Iron/zinc purple acid phosphatase-like protein	PAPL	5	+	0.71
591	Q5JPE7-2	Nodal modulator 2;Nodal modulator 1;Nodal modulator 3	NOMO2;NOMO1; NOMO3	5	+	0.708
592	Q9UHY7	Enolase-phosphatase E1	ENOPH1	5	-	0.699
593	Q13011	Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial	ECH1	5	-	0.696
594	Q9UNW1	Multiple inositol polyphosphate phosphatase 1	MINPP1	5	+	0.684
595	P58215	Lysyl oxidase homolog 3	LOXL3	5	+	0.679
596	Q15435-2	Protein phosphatase 1 regulatory subunit 7	PPP1R7	5	-	0.676
597	P00568	Adenylate kinase isoenzyme 1	AK1	5	-	0.674
598	O15232-2	Matrilin-3	MATN3	5	+	0.659
599	O43405	Cochlin	COCH	5	+	0.655
600	P27701	CD82 antigen	CD82	5	+	0.654
601	P62491-2	Ras-related protein Rab-11A;Ras-related protein Rab-11B	RAB11A;RAB11B	5	-	0.652
602	P59998	Actin-related protein 2/3 complex subunit 4	ARPC4; ARPC4-TTLL3	5	-	0.646
603	Q05048	Cleavage stimulation factor subunit 1	CSTF1	5	-	0.637
604	E7ESM2	Urokinase-type plasminogen activator;Urokinase-type plasminogen activator long chain A;Urokinase-type plasminogen activator short chain A;Urokinase-type plasminogen activator chain B	PLAU	5	+	0.634
605	Q9Y281-3	Cofilin-2	CFL2	5	-	0.631
606	C9JPM4	ADP-ribosylation factor 4	ARF4	5	-	0.609
607	P62140	Serine/threonine-protein phosphatase PP1-beta catalytic subunit;Serine/threonine-protein phosphatase	PPP1CB	5	-	0.604
608	O43592	Exportin-T	XPOT	5	-	0.597
609	O95831-3	Apoptosis-inducing factor 1, mitochondrial	AIFM1	5	-	0.587
610	H3BQQ9	SUMO-conjugating enzyme UBC9	UBE2I	5	-	0.585
611	P24844	Myosin regulatory light polypeptide 9	MYL9	5	-	0.576

612	Q5T6H7	Xaa-Pro aminopeptidase 1	XPNPEP1	5	-	0.575
613	O60687	Sushi repeat-containing protein SRPX2	SRPX2	5	+	0.575
614	Q9GZT8-2	NIF3-like protein 1	NIF3L1	5	-	0.554
615	E7EUD0	Dickkopf-related protein 3	DKK3	5	+	0.55
616	J3QKR3	Proteasome subunit beta type-3	PSMB3	5	-	0.55
617	H7C3P4	N-acetylglucosamine-6-sulfatase	GNS	5	-	0.548
618	Q8NCH0	Carbohydrate sulfotransferase 14	CHST14	5	-	0.542
619	P49903	Selenide, water dikinase 1	SEPHS1	5	-	0.535
620	P43686	26S protease regulatory subunit 6B	PSMC4	5	-	0.519
621	Q12765	Secernin-1	SCRN1	5	-	0.519
622	P07711	Cathepsin L1;Cathepsin L1 heavy chain;Cathepsin L1 light chain	CTSL1	5	+	0.514
623	O75396	Vesicle-trafficking protein SEC22b	SEC22B	5	+	0.509
624	P84077	ADP-ribosylation factor 1;ADP-ribosylation factor 3;ADP-ribosylation factor 5	ARF1;ARF3; ARF5	5	-	0.508
625	P51149	Ras-related protein Rab-7a	RAB7A	5	-	0.498
626	Q8NBJ4-2	Golgi membrane protein 1	GOLM1	5	+	0.497
627	B4DUX0	Cytosolic acyl coenzyme A thioester hydrolase	ACOT7	5	-	0.491
628	P09603	Macrophage colony-stimulating factor 1;Processed macrophage colony-stimulating factor 1	CSF1	5	+	0.488
629	Q04760-2	Lactoylglutathione lyase	GLO1	5	-	0.488
630	P09417-2	Dihydropteridine reductase	QDPR	5	-	0.487
631	O43175	D-3-phosphoglycerate dehydrogenase	PHGDH	5	-	0.481
632	O75882-3	Attractin	ATRN	5	-	0.478
633	Q9Y3F4	Serine-threonine kinase receptor-associated protein	STRAP	5	-	0.471
634	F8W7I9	Ran GTPase-activating protein 1	RANGAP1	5	-	0.46
635	Q08431-2	Lactadherin;Lactadherin short form;Medin	MFGE8	5	-	0.458
636	M0QXS5	Heterogeneous nuclear ribonucleoprotein L	HNRNPL	5	-	0.445
637	Q15181	Inorganic pyrophosphatase	PPA1	5	-	0.433
638	P60891	Ribose-phosphate pyrophosphokinase 1;Ribose-phosphate pyrophosphokinase;Ribose-phosphate pyrophosphokinase 3;Ribose-phosphate pyrophosphokinase 2	PRPS1;PRPS2; PRPS1L1	5	-	0.431
639	F6SBX2	Isoleucine--tRNA ligase, mitochondrial	IARS2	5	-	0.429
640	Q96CW1-2	AP-2 complex subunit mu	AP2M1	5	-	0.428
641	P61289	Proteasome activator complex subunit 3	PSME3	5	-	0.426
642	P05362	Intercellular adhesion molecule 1	ICAM1	5	+	0.422
643	P17858	6-phosphofructokinase, liver type;6-phosphofructokinase, muscle type	PFKL;PFKM	5	-	0.417

644	P63151	Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform	PPP2R2A	5	-	0.412
645	Q9NSD9	Phenylalanine--tRNA ligase beta subunit	FARSB	5	-	0.405
646	P34897-3	Serine hydroxymethyltransferase, mitochondrial;Serine hydroxymethyltransferase	SHMT2	5	-	0.404
647	P04424-2	Argininosuccinate lyase	ASL	5	-	0.398
648	B4DFL2	Isocitrate dehydrogenase [NADP];Isocitrate dehydrogenase [NADP], mitochondrial	IDH2	5	-	0.396
649	P68036-2	Ubiquitin-conjugating enzyme E2 L3	UBE2L3	5	-	0.386
650	P48739	Phosphatidylinositol transfer protein beta isoform	PITPNB	5	-	0.386
651	Q8NEZ5	F-box only protein 22	FBXO22	5	-	0.385
652	Q7L2H7	Eukaryotic translation initiation factor 3 subunit M	EIF3M	5	-	0.383
653	P48163	NADP-dependent malic enzyme;Malic enzyme	ME1	5	-	0.378
654	Q14126	Desmoglein-2	DSG2	5	+	0.375
655	P10599	Thioredoxin	TXN	5	-	0.37
656	P50452	Serpin B8	SERPINB8	5	-	0.36
657	P07814	Bifunctional glutamate/proline--tRNA ligase;Glutamate--tRNA ligase;Proline--tRNA ligase	EPRS	5	-	0.359
658	P43034	Platelet-activating factor acetylhydrolase IB subunit alpha	PAFAH1B1	5	-	0.356
659	F5H223	Dynactin subunit 2	DCTN2	5	-	0.354
660	Q9H4F8	SPARC-related modular calcium-binding protein 1	SMOC1	5	+	0.349
661	O43809	Cleavage and polyadenylation specificity factor subunit 5	NUDT21	5	-	0.348
662	Q9P258	Protein RCC2	RCC2	5	-	0.343
663	Q9NQ88	Fructose-2,6-bisphosphatase TIGAR	TIGAR	5	-	0.332
664	Q9UHI8	A disintegrin and metalloproteinase with thrombospondin motifs 1	ADAMTS1	5	-	0.323
665	P35221	Catenin alpha-1	CTNNA1	5	-	0.301
666	P39748	Flap endonuclease 1	FEN1	5	-	0.298
667	Q8WVY7	Ubiquitin-like domain-containing CTD phosphatase 1	UBLCP1	5	-	0.295
668	P17612-2	cAMP-dependent protein kinase catalytic subunit alpha;cAMP-dependent protein kinase catalytic subunit beta	PRKACA;KIN27; PRKACB	5	-	0.287
669	P30481	HLA class I histocompatibility antigen, B-44 alpha chain;HLA class I histocompatibility antigen, B-47 alpha chain;HLA class I histocompatibility antigen, B-13 alpha chain	HLA-B	5	+	0.27
670	P05387	60S acidic ribosomal protein P2	RPLP2	5	-	0.265
671	B4DVY1	Eukaryotic translation initiation factor 3 subunit D	EIF3D	5	-	0.251
672	Q9NQG5	Regulation of nuclear pre-mRNA domain-containing protein 1B	RPRD1B	5	-	0.248
673	O00560-3	Syntenin-1	SDCBP	5	-	0.245
674	Q14914-2	Prostaglandin reductase 1	PTGR1	5	-	0.22

675	Q9UHX1-4	Poly(U)-binding-splicing factor PUF60	PUF60	5	-	0.217
676	P30685	HLA class I histocompatibility antigen, B-35 alpha chain;HLA class I histocompatibility antigen, B-53 alpha chain;HLA class I histocompatibility antigen, B-59 alpha chain;HLA class I histocompatibility antigen, B-78 alpha chain;HLA class I histocompatibil	HLA-B	5	+	0.217
677	P55010	Eukaryotic translation initiation factor 5	EIF5	5	-	0.185
678	Q04637-6	Eukaryotic translation initiation factor 4 gamma 1	EIF4G1	5	-	0.136
679	Q9Y5B9	FACT complex subunit SPT16	SUPT16H	5	-	0.126
680	Q00839-2	Heterogeneous nuclear ribonucleoprotein U	HNRNPU	5	-	0.075
681	Q92688-2	Acidic leucine-rich nuclear phosphoprotein 32 family member B	ANP32B	5	-	0.067
682	Q7Z406	Myosin-14	MYH14	5	-	0.065
683	O60506-4	Heterogeneous nuclear ribonucleoprotein Q	SYNCRIP	5	-	0.059
684	Q9Y3B8-3	Oligoribonuclease, mitochondrial	REXO2	5	NA	NA
685	P81605	Dermcidin;Survival-promoting peptide;DCD-1	DCD	4	+	0.957
686	F8VXJ7	Protein canopy homolog 2	CNPY2	4	+	0.953
687	O60888-3	Protein CutA	CUTA	4	+	0.934
688	K7EK42	Tubulin-folding cofactor B	TBCB;CKAP1	4	-	0.921
689	C9J8Z4	Immunoglobulin superfamily member 8	IGSF8	4	+	0.908
690	O95881	Thioredoxin domain-containing protein 12	TXNDC12	4	+	0.836
691	P39019	40S ribosomal protein S19	RPS19	4	-	0.821
692	P30048-2	Thioredoxin-dependent peroxide reductase, mitochondrial	PRDX3	4	-	0.818
693	O95967	EGF-containing fibulin-like extracellular matrix protein 2	EFEMP2	4	+	0.816
694	J3KTH8	Granulocyte colony-stimulating factor	CSF3	4	+	0.805
695	P22304	Iduronate 2-sulfatase;Iduronate 2-sulfatase 42 kDa chain;Iduronate 2-sulfatase 14 kDa chain	IDS	4	+	0.799
696	P39656	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit	DDOST	4	+	0.783
697	Q9UHD8-4	Septin-9	SEPT9	4	-	0.78
698	M0QZC5	40S ribosomal protein S11	RPS11	4	-	0.777
699	B4E2V5	Erythrocyte band 7 integral membrane protein	STOM	4	-	0.774
700	O95834	Echinoderm microtubule-associated protein-like 2	EML2	4	-	0.771
701	O75368	SH3 domain-binding glutamic acid-rich-like protein	SH3BGRL	4	-	0.758
702	F8W1Q3	Biotinidase	BTD	4	+	0.753
703	P55145	Mesencephalic astrocyte-derived neurotrophic factor	MANF	4	+	0.75
704	C9J0J7	Profilin-2;Profilin	PFN2	4	-	0.743
705	C9J712	Profilin-2	PFN2	4	-	0.737
706	Q15758	Neutral amino acid transporter B(0)	SLC1A5	4	-	0.734

707	E7EP32	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2;Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1;Guanine nucleotide-binding protein subunit beta-4	GNB2;GNB1;GNB4	4	-	0.727
708	P37235	Hippocalcin-like protein 1;Neuron-specific calcium-binding protein hippocalcin	HPCAL1;HPCA	4	-	0.725
709	Q9Y2I2-2	Netrin-G1	NTNG1	4	+	0.716
710	P04066	Tissue alpha-L-fucosidase	FUCA1	4	+	0.708
711	P05161	Ubiquitin-like protein ISG15	ISG15	4	-	0.702
712	P00750-4	Tissue-type plasminogen activator;Tissue-type plasminogen activator chain A;Tissue-type plasminogen activator chain B	PLAT	4	-	0.694
713	Q8N474	Secreted frizzled-related protein 1	SFRP1	4	+	0.692
714	F5GY37	Prohibitin-2	PHB2	4	-	0.686
715	F8VZJ2	Nascent polypeptide-associated complex subunit alpha	NACA	4	-	0.681
716	P13497-4	Bone morphogenetic protein 1	BMP1	4	+	0.677
717	E5RIW3	Tubulin-specific chaperone A	TBCA	4	-	0.676
718	P24592	Insulin-like growth factor-binding protein 6	IGFBP6	4	+	0.675
719	O75828	Carbonyl reductase [NADPH] 3	CBR3	4	-	0.674
720	Q8TBC4-2	NEDD8-activating enzyme E1 catalytic subunit	UBA3	4	-	0.664
721	P62244	40S ribosomal protein S15a	RPS15A	4	-	0.663
722	Q9UKU9	Angiopoietin-related protein 2	ANGPTL2	4	+	0.66
723	Q9Y547	Heat shock protein beta-11	HSPB11	4	-	0.652
724	M0R0Y2	Alpha-soluble NSF attachment protein	NAPA	4	-	0.649
725	Q9UNF0-2	Protein kinase C and casein kinase substrate in neurons protein 2	PACSIN2	4	-	0.647
726	P04899	Guanine nucleotide-binding protein G(i) subunit alpha-2	GNAI2	4	-	0.629
727	Q9Y3A5	Ribosome maturation protein SBDS	SBDS	4	-	0.627
728	Q96CN7	Isochorismatase domain-containing protein 1	ISOC1	4	-	0.616
729	P61353	60S ribosomal protein L27	RPL27	4	-	0.612
730	Q96FQ6	Protein S100-A16	S100A16	4	-	0.609
731	P62701	40S ribosomal protein S4, X isoform;40S ribosomal protein S4, Y isoform 1;40S ribosomal protein S4, Y isoform 2	RPS4X;RPS4Y1; RPS4Y2	4	-	0.606
732	O95865	N(G),N(G)-dimethylarginine dimethylaminohydrolase 2	DDAH2	4	-	0.598
733	Q71UI9	Histone H2A.V;Histone H2A.Z;Histone H2A	H2AFV;H2AFZ	4	-	0.593
734	O00764-2	Pyridoxal kinase	PDXK	4	-	0.59
735	H0Y8L7	40S ribosomal protein S3a	RPS3A	4	-	0.589
736	P06132	Uroporphyrinogen decarboxylase	UROD	4	-	0.588
737	P56537	Eukaryotic translation initiation factor 6	EIF6	4	-	0.584
738	O00505	Importin subunit alpha-4	KPNA3	4	-	0.578
739	Q86X55-2	Histone-arginine methyltransferase CARM1	CARM1	4	-	0.577

740	P52788-2	Spermine synthase	SMS	4	-	0.575
741	P61604	10 kDa heat shock protein, mitochondrial	HSPE1	4	-	0.57
742	H0Y6E7	RNA-binding motif protein, X chromosome;RNA-binding motif protein, X chromosome, N-terminally processed	RBMX	4	-	0.566
743	P12004	Proliferating cell nuclear antigen	PCNA	4	-	0.566
744	O00629	Importin subunit alpha-3	KPNA4	4	-	0.564
745	C9J3R8	Beta-1,4-galactosyltransferase 4;N-acetyllactosamine synthase;Lactotriaosylceramide beta-1,4-galactosyltransferase	B4GALT4	4	+	0.563
746	P98155-2	Very low-density lipoprotein receptor	VLDLR	4	+	0.562
747	G3V158	Putative deoxyribose-phosphate aldolase	DERA	4	-	0.561
748	H0YD13	CD44 antigen	CD44	4	+	0.556
749	P48147	Prolyl endopeptidase	PREP	4	-	0.543
750	Q00688	Peptidyl-prolyl cis-trans isomerase FKBP3	FKBP3	4	-	0.534
751	O95777	N-alpha-acetyltransferase 38, NatC auxiliary subunit	NAA38	4	-	0.532
752	Q9BUL8	Programmed cell death protein 10	PDCD10	4	-	0.53
753	A8MQ58	Inactive serine protease PAMR1	PAMR1	4	+	0.527
754	P08754	Guanine nucleotide-binding protein G(k) subunit alpha	GNAI3	4	-	0.527
755	Q08397	Lysyl oxidase homolog 1	LOXL1	4	+	0.524
756	H7C488	Leucine zipper transcription factor-like protein 1	LZTFL1	4	-	0.511
757	Q9BRF8-2	Calcineurin-like phosphoesterase domain-containing protein 1	CPPED1	4	-	0.507
758	C9JXC1	Ribonucleoside-diphosphate reductase subunit M2	RRM2	4	-	0.503
759	Q92466	DNA damage-binding protein 2	DDB2	4	-	0.502
760	A6NDG6	Phosphoglycolate phosphatase	PGP	4	-	0.49
761	P49189	4-trimethylaminobutyraldehyde dehydrogenase	ALDH9A1	4	-	0.49
762	Q9NX46	Poly(ADP-ribose) glycohydrolase ARH3	ADPRHL2	4	-	0.481
763	P30046	D-dopachrome decarboxylase;D-dopachrome decarboxylase-like protein	DDT;DDTL	4	-	0.479
764	B4DDF4	Calponin-2	CNN2	4	-	0.476
765	P52597	Heterogeneous nuclear ribonucleoprotein F;Heterogeneous nuclear ribonucleoprotein F, N-terminally processed	HNRNPF	4	-	0.475
766	P46108	Adapter molecule crk	CRK	4	-	0.467
767	P61457	Pterin-4-alpha-carbinolamine dehydratase	PCBD1	4	-	0.461
768	P62269	40S ribosomal protein S18	RPS18	4	-	0.459
769	P55263-4	Adenosine kinase	ADK	4	-	0.446
770	Q96RS6-3	NudC domain-containing protein 1	NUDCD1	4	-	0.44
771	Q9H1B5	Xylosyltransferase 2	XYLT2	4	+	0.431
772	Q99598	Translin-associated protein X	TSNAX;DISC1	4	-	0.419

773	P67775	Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform;Serine/threonine-protein phosphatase 2A catalytic subunit beta isoform	PPP2CA;PPP2CB	4	-	0.419
774	P62750	60S ribosomal protein L23a	RPL23A	4	-	0.418
775	Q15717	ELAV-like protein 1	ELAVL1	4	-	0.415
776	Q99798	Aconitate hydratase, mitochondrial	ACO2	4	-	0.413
777	O75663	TIP41-like protein	TIPRL	4	-	0.409
778	P04040	Catalase	CAT	4	-	0.406
779	O43776	Asparagine--tRNA ligase, cytoplasmic	NARS	4	-	0.406
780	Q9BQT9	Calsyntenin-3	CLSTN3	4	+	0.404
781	P62820	Ras-related protein Rab-1A;Putative Ras-related protein Rab-1C	RAB1A;RAB1B; RAB1C	4	-	0.397
782	P0C0L4-2	Complement C4-A;Complement C4 beta chain;Complement C4-A alpha chain;C4a anaphylatoxin;C4b-A;C4d-A;Complement C4 gamma chain;Complement C4-B;Complement C4 beta chain;Complement C4-B alpha chain;C4a anaphylatoxin;C4b-B;C4d-B;Complement C4 gamma chain	C4A;C4B	4	+	0.393
783	P11279	Lysosome-associated membrane glycoprotein 1	LAMP1	4	+	0.388
784	P02792	Ferritin light chain	FTL	4	-	0.383
785	Q99584	Protein S100-A13	S100A13	4	-	0.369
786	Q9UBT2	SUMO-activating enzyme subunit 2	UBA2	4	-	0.367
787	Q92905	COP9 signalosome complex subunit 5	COPS5	4	-	0.364
788	P30530-2	Tyrosine-protein kinase receptor UFO	AXL	4	+	0.363
789	Q15691	Microtubule-associated protein RP/EB family member 1	MAPRE1	4	-	0.356
790	F8W717	Echinoderm microtubule-associated protein-like 1	EML1	4	-	0.336
791	A3KFL4	Exosome complex component RRP4	EXOSC2	4	-	0.33
792	C9JBI3	Phosphoserine phosphatase	PSPH	4	-	0.328
793	Q92499	ATP-dependent RNA helicase DDX1	DDX1	4	-	0.324
794	Q7L1Q6-2	Basic leucine zipper and W2 domain-containing protein 1	BZW1	4	-	0.321
795	G3V4F2	Acyl-coenzyme A thioesterase 1;Acyl-coenzyme A thioesterase 2, mitochondrial	ACOT1;ACOT2	4	-	0.317
796	O14579	Coatomer subunit epsilon	COPE	4	-	0.295
797	B7Z2C3	Protein phosphatase 1F	PPM1F	4	-	0.291
798	G3V4C6	UPF0568 protein C14orf166	C14orf166	4	-	0.273
799	P18124	60S ribosomal protein L7	RPL7	4	-	0.256
800	O95347-2	Structural maintenance of chromosomes protein 2	SMC2	4	-	0.23
801	O15143	Actin-related protein 2/3 complex subunit 1B	ARPC1B	4	-	0.222
802	Q6EMK4	Vasorin	VASN	4	+	0.216
803	Q14CX7	N-alpha-acetyltransferase 25, NatB auxiliary subunit	NAA25	4	-	0.213

804	Q9NPD3	Exosome complex component RRP41	EXOSC4	4	-	0.212
805	Q76M96	Coiled-coil domain-containing protein 80	CCDC80	4	+	0.206
806	P30457	HLA class I histocompatibility antigen, A-66 alpha chain;HLA class I histocompatibility antigen, A-34 alpha chain;HLA class I histocompatibility antigen, A-26 alpha chain;HLA class I histocompatibility antigen, A-25 alpha chain;HLA class I histocompatibil	HLA-A	4	+	0.192
807	H0YDU8	Serine/threonine-protein phosphatase;Serine/threonine-protein phosphatase 5	PPP5C	4	-	0.191
808	E9PRH9	Nuclear autoantigenic sperm protein	NASP	4	-	0.146
809	P27824	Calnexin	CANX	4	+	0.127
810	Q95604	HLA class I histocompatibility antigen, Cw-17 alpha chain	HLA-C	4	+	0.12
811	Q96C19	EF-hand domain-containing protein D2	EFHD2	4	-	0.097
812	P30508	HLA class I histocompatibility antigen, Cw-12 alpha chain;HLA class I histocompatibility antigen, Cw-16 alpha chain;HLA class I histocompatibility antigen, Cw-14 alpha chain;HLA class I histocompatibility antigen, Cw-4 alpha chain	HLA-C	4	+	0.092
813	P08572	Collagen alpha-2(IV) chain;Canstatin	COL4A2	4	+	0.068
814	X6RA14	S-formylglutathione hydrolase	ESD	4	NA	NA
815	P22105-3	Tenascin-X	TNXB	4	NA	NA
816	P17900	Ganglioside GM2 activator;Ganglioside GM2 activator isoform short	GM2A	3	+	0.945
817	Q9UNN8	Endothelial protein C receptor	PROCR	3	+	0.916
818	Q9GZM7-3	Tubulointerstitial nephritis antigen-like	TINAGL1	3	+	0.914
819	P62316	Small nuclear ribonucleoprotein Sm D2	SNRPD2	3	-	0.914
820	P62081	40S ribosomal protein S7	RPS7	3	-	0.905
821	P61224-2	Ras-related protein Rap-1b;Ras-related protein Rap-1A;Ras-related protein Rap-1b-like protein	RAP1B;RAP1A	3	-	0.891
822	P61812	Transforming growth factor beta-2;Latency-associated peptide	TGFB2	3	+	0.887
823	P30044-2	Peroxiredoxin-5, mitochondrial	PRDX5	3	-	0.885
824	V9GZ55	Proteasome assembly chaperone 2	PSMG2	3	-	0.866
825	P51148	Ras-related protein Rab-5C;Ras-related protein Rab-5B;Ras-related protein Rab-5A	RAB5C;RAB5B; RAB5A	3	-	0.865
826	Q9UBR2	Cathepsin Z	CTSZ	3	+	0.861
827	P30084	Enoyl-CoA hydratase, mitochondrial	ECHS1	3	-	0.855
828	P16035	Metalloproteinase inhibitor 2	TIMP2	3	+	0.854
829	P31949	Protein S100-A11	S100A11	3	-	0.839
830	P62277	40S ribosomal protein S13	RPS13	3	-	0.816
831	P13674-3	Prolyl 4-hydroxylase subunit alpha-1	P4HA1	3	+	0.806
832	Q9UHL4	Dipeptidyl peptidase 2	DPP7	3	+	0.805

833	Q16790	Carbonic anhydrase 9	CA9	3	+	0.804
834	Q96CX2	BTB/POZ domain-containing protein KCTD12	KCTD12	3	-	0.791
835	C9J0K6	Sorcin	SRI	3	-	0.786
836	O00748	Cocaine esterase	CES2	3	+	0.784
837	H7C4X4	Target of Nesh-SH3	ABI3BP; DKFZp667H216	3	-	0.784
838	Q8IV08	Phospholipase D3	PLD3	3	-	0.779
839	Q14847	LIM and SH3 domain protein 1	LASP1	3	-	0.776
840	P14174	Macrophage migration inhibitory factor	MIF	3	-	0.776
841	P08294	Extracellular superoxide dismutase [Cu-Zn]	SOD3	3	+	0.773
842	P53634	Dipeptidyl peptidase 1;Dipeptidyl peptidase 1 exclusion domain chain;Dipeptidyl peptidase 1 heavy chain;Dipeptidyl peptidase 1 light chain	CTSC	3	+	0.767
843	Q96DB5-2	Regulator of microtubule dynamics protein 1	RMDN1	3	+	0.764
844	J3QT28	Mitotic checkpoint protein BUB3	BUB3	3	-	0.76
845	Q9BXJ1	Complement C1q tumor necrosis factor-related protein 1	C1QTNF1	3	+	0.757
846	K7EJ74	116 kDa U5 small nuclear ribonucleoprotein component	EFTUD2	3	-	0.754
847	Q15642-5	Cdc42-interacting protein 4	TRIP10	3	-	0.745
848	P19957	Elafin	PI3	3	+	0.744
849	P04792	Heat shock protein beta-1	HSPB1	3	-	0.74
850	Q9UM22-3	Mammalian ependymin-related protein 1	EPDR1;UCC1	3	-	0.735
851	F5H325	N-acetylgalactosamine-6-sulfatase	GALNS	3	+	0.729
852	E7ESP4	Integrin alpha-2	ITGA2	3	+	0.727
853	A2ACR1	Proteasome subunit beta type;Proteasome subunit beta type-9	PSMB9	3	-	0.723
854	P26885	Peptidyl-prolyl cis-trans isomerase FKBP2	FKBP2	3	+	0.722
855	K7EK07	Histone H3;Histone H3.3C;Histone H3.2;Histone H3.1t;Histone H3.3;Histone H3.1	H3F3B;H3F3C;HIST2H3A;HIST2H3PS2;HIST3H3;H3F3A;HIST1H3A	3	-	0.718
856	P06280	Alpha-galactosidase A	GLA	3	+	0.713
857	E9PP31	Caprin-1	CAPRIN1	3	-	0.712
858	Q9NPR2-2	Semaphorin-4B	SEMA4B	3	+	0.709
859	R4GN98	Protein S100-A6	S100A6	3	-	0.709
860	Q15274	Nicotinate-nucleotide pyrophosphorylase [carboxylating]	QPRT	3	+	0.707
861	P38919	Eukaryotic initiation factor 4A-III;Eukaryotic initiation factor 4A-III, N-terminally processed	EIF4A3	3	-	0.698
862	O95479	GDH/6PGL endoplasmic bifunctional protein;Glucose 1-dehydrogenase;6-phosphogluconolactonase	H6PD	3	+	0.691

863	P62263	40S ribosomal protein S14	RPS14	3	-	0.691
864	C9JZD1	Actin-related protein 2/3 complex subunit 3	ARPC3	3	-	0.687
865	P33316-2	Deoxyuridine 5-triphosphate nucleotidohydrolase, mitochondrial	DUT	3	-	0.686
866	O15511	Actin-related protein 2/3 complex subunit 5	ARPC5	3	-	0.684
867	H3BPK3	Hydroxyacylglutathione hydrolase, mitochondrial	HAGH	3	-	0.682
868	H0Y630	Serine/threonine-protein kinase 24;Serine/threonine-protein kinase 24 36 kDa subunit;Serine/threonine-protein kinase 24 12 kDa subunit	STK24	3	-	0.68
869	P53999	Activated RNA polymerase II transcriptional coactivator p15	SUB1	3	-	0.671
870	P46783	40S ribosomal protein S10	RPS10	3	-	0.659
871	Q96AG4	Leucine-rich repeat-containing protein 59	LRRC59	3	-	0.655
872	P00441	Superoxide dismutase [Cu-Zn]	SOD1	3	-	0.648
873	Q9Y646	Carboxypeptidase Q	CPQ	3	+	0.646
874	P53680-2	AP-2 complex subunit sigma	AP2S1	3	-	0.645
875	P28300	Protein-lysine 6-oxidase	LOX	3	+	0.638
876	P23919-2	Thymidylate kinase	DTYMK	3	-	0.629
877	P61970	Nuclear transport factor 2	NUTF2	3	-	0.625
878	P46109	Crk-like protein	CRKL	3	-	0.624
879	P63092-3	Guanine nucleotide-binding protein G(s) subunit alpha isoforms short;Guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas	GNAS	3	-	0.624
880	Q07021	Complement component 1 Q subcomponent-binding protein, mitochondrial	C1QBP	3	+	0.622
881	Q9Y570-2	Protein phosphatase methylesterase 1	PPME1	3	-	0.62
882	Q9BZM5	NKG2D ligand 2	ULBP2	3	+	0.617
883	Q07812-5	Apoptosis regulator BAX	BAX	3	-	0.617
884	Q16401-2	26S proteasome non-ATPase regulatory subunit 5	PSMD5	3	-	0.614
885	Q9NPH3-3	Interleukin-1 receptor accessory protein	IL1RAP	3	+	0.604
886	Q9NR45	Sialic acid synthase	NANS	3	-	0.602
887	O76061	Stanniocalcin-2	STC2	3	+	0.601
888	P49257	Protein ERGIC-53	LMAN1	3	+	0.589
889	Q9UHV9	Prefoldin subunit 2	PFDN2	3	-	0.583
890	P21281	V-type proton ATPase subunit B, brain isoform	ATP6V1B2	3	-	0.579
891	K7ES02	Bleomycin hydrolase	BLMH	3	-	0.573
892	P13489	Ribonuclease inhibitor	RNH1	3	-	0.568
893	P49419-2	Alpha-aminoadipic semialdehyde dehydrogenase	ALDH7A1	3	-	0.567
894	P28072	Proteasome subunit beta type-6	PSMB6	3	-	0.563
895	P24534	Elongation factor 1-beta	EEF1B2	3	-	0.562
896	O43765	Small glutamine-rich tetratricopeptide repeat-containing protein alpha	SGTA	3	-	0.549
897	C9J6N9	Ubiquitin fusion degradation protein 1 homolog	UFD1L	3	-	0.549

898	P06756-3	Integrin alpha-V;Integrin alpha-V heavy chain;Integrin alpha-V light chain	ITGAV	3	+	0.549
899	B3KQC5	Endoplasmic reticulum mannosyl-oligosaccharide 1,2-alpha-mannosidase	MAN1B1	3	-	0.546
900	P62195-2	26S protease regulatory subunit 8	PSMC5	3	-	0.542
901	Q00888-2	Pregnancy-specific beta-1-glycoprotein 4;Pregnancy-specific beta-1-glycoprotein 5	PSG4;PSG5	3	+	0.54
902	C9JP16	Cartilage-associated protein	CRTAP	3	+	0.539
903	Q8IXB1	DnaJ homolog subfamily C member 10	DNAJC10	3	-	0.516
904	P40306	Proteasome subunit beta type-10	PSMB10	3	-	0.515
905	Q9BR76	Coronin-1B;Coronin	CORO1B	3	-	0.508
906	K7ER96	Thioredoxin-like protein 1	TXNL1	3	-	0.508
907	E7ERV9	Acid ceramidase;Acid ceramidase subunit alpha;Acid ceramidase subunit beta	ASAH1	3	-	0.504
908	Q9Y376	Calcium-binding protein 39	CAB39	3	-	0.501
909	P62851	40S ribosomal protein S25	RPS25	3	-	0.499
910	Q5VWZ2	Lysophospholipase-like protein 1	LYPLAL1	3	-	0.498
911	Q13283	Ras GTPase-activating protein-binding protein 1	G3BP1	3	-	0.496
912	Q9BRA2	Thioredoxin domain-containing protein 17	TXNDC17	3	-	0.491
913	Q07960	Rho GTPase-activating protein 1	ARHGAP1	3	-	0.48
914	P02787	Serotransferrin	TF	3	+	0.478
915	A6PVN6	Serine/threonine-protein phosphatase 2A activator	PPP2R4	3	-	0.476
916	P35637-2	RNA-binding protein FUS;TATA-binding protein-associated factor 2N	FUS;TAF15	3	-	0.471
917	Q14393-5	Growth arrest-specific protein 6	GAS6	3	-	0.469
918	P40261	Nicotinamide N-methyltransferase	NNMT	3	-	0.469
919	O15355	Protein phosphatase 1G	PPM1G	3	-	0.463
920	O14744-2	Protein arginine N-methyltransferase 5;Protein arginine N-methyltransferase 5, N-terminally processed	PRMT5	3	-	0.461
921	P24941	Cyclin-dependent kinase 2;Cyclin-dependent kinase 3	CDK2;CDK3	3	-	0.459
922	Q13126	S-methyl-5-thioadenosine phosphorylase;Purine nucleoside phosphorylase	MTAP	3	-	0.458
923	P62913-2	60S ribosomal protein L11	RPL11	3	-	0.457
924	E9PM69	26S protease regulatory subunit 6A	PSMC3	3	-	0.454
925	Q99985	Semaphorin-3C	SEMA3C	3	+	0.453
926	P04181	Ornithine aminotransferase, mitochondrial;Ornithine aminotransferase, hepatic form;Ornithine aminotransferase, renal form	OAT	3	+	0.452
927	P14735	Insulin-degrading enzyme	IDE	3	+	0.449
928	G5E9W8	Glycogenin-1	GYG1	3	-	0.445
929	Q03154-2	Aminoacylase-1	ACY1; ABHD14A-ACY1	3	-	0.43
930	Q8NCW5-2	NAD(P)H-hydrate epimerase	APOA1BP	3	-	0.425
931	Q15024	Exosome complex component RRP42	EXOSC7	3	-	0.418

932	P48506	Glutamate--cysteine ligase catalytic subunit	GCLC	3	-	0.414
933	O43747	AP-1 complex subunit gamma-1	AP1G1	3	-	0.401
934	F8VPD4	CAD protein;Glutamine-dependent carbamoyl-phosphate synthase;Aspartate carbamoyltransferase;Dihydroorotase	CAD	3	-	0.398
935	Q12874	Splicing factor 3A subunit 3	SF3A3	3	-	0.394
936	B4DXP9	Alpha-centractin	ACTR1A	3	-	0.393
937	I3L4H1	Phosphatidylinositol transfer protein alpha isoform	PITPNA	3	-	0.391
938	O75223-3	Gamma-glutamylcyclotransferase	GGCT	3	-	0.385
939	Q9BSJ8	Extended synaptotagmin-1	ESYT1	3	-	0.382
940	P21796	Voltage-dependent anion-selective channel protein 1	VDAC1	3	-	0.375
941	O76054-5	SEC14-like protein 2	SEC14L2	3	-	0.371
942	P11766	Alcohol dehydrogenase class-3	ADH5	3	-	0.369
943	P20290-2	Transcription factor BTF3	BTF3	3	-	0.364
944	Q9Y5S9-2	RNA-binding protein 8A	RBM8A	3	-	0.36
945	Q9UNZ2	NSFL1 cofactor p47	NSFL1C	3	-	0.359
946	P07311	Acylphosphatase-1;Acylphosphatase	ACYP1	3	-	0.348
947	Q96PD2	Discoidin, CUB and LCCL domain-containing protein 2	DCBLD2	3	-	0.347
948	P61019	Ras-related protein Rab-2A;Ras-related protein Rab-2B	RAB2A;RAB2B	3	-	0.345
949	Q16543	Hsp90 co-chaperone Cdc37;Hsp90 co-chaperone Cdc37, N-terminally processed	CDC37	3	-	0.342
950	P26373	60S ribosomal protein L13	RPL13	3	-	0.335
951	P04080	Cystatin-B	CSTB	3	-	0.333
952	E5RHG8	Transcription elongation factor B polypeptide 1	TCEB1	3	-	0.325
953	Q99627-2	COP9 signalosome complex subunit 8	COPS8	3	-	0.324
954	Q8N257	Histone H2B type 3-B;Histone H2B type 2-E;Histone H2B type 1-B;Histone H2B type 1-O;Histone H2B type 1-J	HIST3H2BB;HIST2H2BE;HIST1H2BB;HIST1H2BO;HIST1H2BJ	3	-	0.322
955	Q99880	Histone H2B type 1-L;Histone H2B type 1-M;Histone H2B type 1-N;Histone H2B type 1-H;Histone H2B type 2-F;Histone H2B type 1-C/E/F/G/I;Histone H2B type 1-D;Histone H2B type F-S;Histone H2B type 1-K;Histone H2B	HIST1H2BL;HIST1H2BM;HIST1H2BN;HIST1H2BH;HIST2H2BF;HIST1H2BC;HIST1H2BD;H2BFS;HIST1H2BK	3	-	0.322
956	O43570-2	Carbonic anhydrase 12	CA12	3	+	0.309
957	Q14574-2	Desmocollin-3	DSC3	3	+	0.301
958	Q9BZZ5-3	Apoptosis inhibitor 5	API5	3	-	0.294
959	Q14696	LDLR chaperone MESD	MESDC2	3	+	0.294

960	Q14008-2	Cytoskeleton-associated protein 5	CKAP5	3	-	0.293
961	Q92896	Golgi apparatus protein 1	GLG1	3	+	0.289
962	P05455	Lupus La protein	SSB	3	-	0.266
963	Q13442	28 kDa heat- and acid-stable phosphoprotein	PDAP1	3	-	0.262
964	P43121	Cell surface glycoprotein MUC18	MCAM	3	+	0.256
965	O00203-3	AP-3 complex subunit beta-1	AP3B1	3	-	0.25
966	E7ER27	Peroxisomal multifunctional enzyme type 2;(3R)-hydroxyacyl-CoA dehydrogenase;Enoyl-CoA hydratase 2	HSD17B4	3	-	0.248
967	H7C2Y5	DnaJ homolog subfamily B member 11	DNAJB11	3	-	0.232
968	Q9UMF0	Intercellular adhesion molecule 5	ICAM5	3	+	0.227
969	Q12996	Cleavage stimulation factor subunit 3	CSTF3	3	-	0.211
970	P09914-2	Interferon-induced protein with tetratricopeptide repeats 1	IFIT1	3	-	0.21
971	P12270	Nucleoprotein TPR	TPR	3	-	0.163
972	B4E1S6	Syndecan;Syndecan-4	SDC4	3	-	0.158
973	P04843	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1	RPN1	3	+	0.151
974	Q9BTT0	Acidic leucine-rich nuclear phosphoprotein 32 family member E	ANP32E	3	-	0.128
975	Q5T123	SH3 domain-binding glutamic acid-rich-like protein 3	SH3BGRL3	3	-	0.106
976	Q9UQE7	Structural maintenance of chromosomes protein 3	SMC3	3	-	0.103
977	P51991-2	Heterogeneous nuclear ribonucleoprotein A3	HNRNPA3	3	-	0.09
978	Q8WZA9	Immunity-related GTPase family Q protein	IRGQ	3	-	0.086
979	Q15459	Splicing factor 3A subunit 1	SF3A1	3	-	0.065
980	Q32P28-4	Prolyl 3-hydroxylase 1	LEPRE1	3	NA	NA
981	P34096	Ribonuclease 4	RNASE4	2	+	0.919
982	F5H4U8	COP9 signalosome complex subunit 7a	COPS7A	2	-	0.913
983	C9JXR7	Caspase-3;Caspase-3 subunit p17;Caspase-3 subunit p12	CASP3	2	-	0.899
984	P13284	Gamma-interferon-inducible lysosomal thiol reductase	IFI30	2	+	0.895
985	Q15121	Astrocytic phosphoprotein PEA-15	PEA15	2	-	0.894
986	B3KSJ5	Meteorin-like protein	METRNL	2	-	0.891
987	P09496-2	Clathrin light chain A	CLTA	2	-	0.888
988	K7ES20	Cyclin-dependent kinase inhibitor 2A, isoforms 1/2/3;Cyclin-dependent kinase 4 inhibitor B	CDKN2A; CDKN2B	2	-	0.886
989	F8WDB9	Adenylyl cyclase-associated protein;Adenylyl cyclase-associated protein 2	CAP2	2	-	0.882
990	P45877	Peptidyl-prolyl cis-trans isomerase C	PPIC	2	+	0.878
991	P15692-10	Vascular endothelial growth factor A	VEGFA	2	+	0.878
992	F8VVL1	Density-regulated protein	DENR	2	-	0.875
993	P49459	Ubiquitin-conjugating enzyme E2 A	UBE2A	2	-	0.867
994	P30050	60S ribosomal protein L12	RPL12	2	-	0.865

995	Q15726	Metastasis-suppressor KiSS-1;Metastin;Kisspeptin-14;Kisspeptin-13;Kisspeptin-10	KISS1	2	+	0.851
996	A6NDF3	Protein PBDC1	PBDC1	2	-	0.85
997	P98179	Putative RNA-binding protein 3	RBM3	2	-	0.845
998	F8WDS9	LanC-like protein 1	LANCL1	2	-	0.843
999	P15151-3	Poliovirus receptor	PVR	2	+	0.836
1000	Q9UMX5	Neudesin	NENF	2	+	0.834
1001	Q9NPD8	Ubiquitin-conjugating enzyme E2 T	UBE2T	2	-	0.831
1002	Q9UJJ9	N-acetylglucosamine-1-phosphotransferase subunit gamma	GNPTG	2	+	0.829
1003	P20809	Interleukin-11	IL11	2	+	0.829
1004	K7EQA1	Programmed cell death protein 5	PDCD5	2	-	0.82
1005	F5GX77	tRNA methyltransferase 112 homolog	TRMT112	2	-	0.818
1006	K7EKL3	Granulins;Acrogranin;Paragranulin;Granulin-1;Granulin-2;Granulin-3;Granulin-4;Granulin-5;Granulin-6;Granulin-7	GRN	2	-	0.813
1007	Q99574	Neuroserpin	SERPINI1	2	+	0.806
1008	Q5TBK7	Ubiquitin carboxyl-terminal hydrolase isozyme L3	UCHL3	2	-	0.802
1009	Q6UW63	KDEL motif-containing protein 1	KDELC1	2	+	0.801
1010	P50897-2	Palmitoyl-protein thioesterase 1	PPT1	2	+	0.799
1011	A2A2D0	Stathmin	STMN1	2	-	0.795
1012	Q15056-2	Eukaryotic translation initiation factor 4H	EIF4H	2	-	0.794
1013	P36639-4	7,8-dihydro-8-oxoguanine triphosphatase	NUDT1	2	+	0.782
1014	H7C1Z9	Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase FKBP14	FKBP14	2	-	0.774
1015	B1AHB2	DNA replication licensing factor MCM5	MCM5	2	+	0.772
1016	Q9H773	dCTP pyrophosphatase 1	DCTPP1	2	-	0.77
1017	E9PES6	High mobility group protein B3	HMGB3	2	-	0.77
1018	P60866	40S ribosomal protein S20	RPS20	2	-	0.769
1019	Q99538	Legumain	LGMN	2	+	0.753
1020	M0R0G9	U1 small nuclear ribonucleoprotein A	SNRPA	2	-	0.753
1021	B4DJP7	Small nuclear ribonucleoprotein Sm D3	SNRPD3	2	-	0.749
1022	P67870	Casein kinase II subunit beta	CSNK2B;CSNK2B-LY6G5B-1181	2	-	0.744
1023	Q9H3K6	BolA-like protein 2	BOLA2;BOLA2B;LOC101060252	2	-	0.742
1024	P61081	NEDD8-conjugating enzyme Ubc12	UBE2M	2	-	0.74
1025	O60869-2	Endothelial differentiation-related factor 1	EDF1	2	-	0.737
1026	E9PJD9	60S ribosomal protein L27a	RPL27A	2	-	0.736
1027	C9JXB8	60S ribosomal protein L24	RPL24	2	-	0.735

1028	F5H6I7	Atlastin-3	ATL3	2	-	0.735
1029	O75340-2	Programmed cell death protein 6	PDCD6	2	-	0.729
1030	Q9BWD1	Acetyl-CoA acetyltransferase, cytosolic	ACAT2	2	-	0.726
1031	Q53FT3	Protein Hikeshi	C11orf73	2	-	0.722
1032	P27487	Dipeptidyl peptidase 4;Dipeptidyl peptidase 4 membrane form;Dipeptidyl peptidase 4 soluble form	DPP4	2	+	0.719
1033	Q9Y5Z4-2	Heme-binding protein 2	HEBP2	2	-	0.717
1034	D6RAN1	PDZ and LIM domain protein 7	PDLIM7	2	-	0.712
1035	P24666-3	Low molecular weight phosphotyrosine protein phosphatase	ACP1	2	-	0.712
1036	Q8WVC2	40S ribosomal protein S21	RPS21	2	-	0.712
1037	P16278-2	Beta-galactosidase	GLB1	2	+	0.711
1038	P19876	C-X-C motif chemokine 3;GRO-gamma(5-73);C-X-C motif chemokine 2;GRO-beta(5-73);Growth-regulated alpha protein;GRO-alpha(4-73);GRO-alpha(5-73);GRO-alpha(6-73)	CXCL3;CXCL2; CXCL1	2	+	0.709
1039	Q9HAV7	GrpE protein homolog 1, mitochondrial	GRPEL1	2	+	0.704
1040	H0YA68	Epididymis-specific alpha-mannosidase	MAN2B2	2	+	0.699
1041	O75348	V-type proton ATPase subunit G 1	ATP6V1G1	2	-	0.698
1042	B1AHA8	Heme oxygenase 1	HMOX1	2	-	0.696
1043	P30533	Alpha-2-macroglobulin receptor-associated protein	LRPAP1	2	+	0.693
1044	O95486	Protein transport protein Sec24A	SEC24A	2	-	0.687
1045	O43324	Eukaryotic translation elongation factor 1 epsilon-1	EEF1E1; hCG_2043275	2	-	0.686
1046	O75503	Ceroid-lipofuscinosis neuronal protein 5	CLN5	2	-	0.683
1047	O43399	Tumor protein D54	TPD52L2	2	-	0.68
1048	H3BMU8	Group XV phospholipase A2	PLA2G15	2	+	0.674
1049	O96007	Molybdopterin synthase catalytic subunit	MOCS2	2	-	0.667
1050	J3KTJ8	60S ribosomal protein L26-like 1;60S ribosomal protein L26	RPL26;KRBA2; RPL26L1	2	-	0.666
1051	O00241	Signal-regulatory protein beta-1	SIRPB1	2	+	0.661
1052	P25398	40S ribosomal protein S12	RPS12	2	-	0.661
1053	P49411	Elongation factor Tu, mitochondrial	TUFM	2	-	0.661
1054	Q86X76-2	Nitrilase homolog 1	NIT1	2	-	0.659
1055	B7Z3I9	Delta-aminolevulinic acid dehydratase	ALAD	2	-	0.656
1056	B4DMV3	Isoamyl acetate-hydrolyzing esterase 1 homolog	IAH1	2	-	0.649
1057	D6REQ6	Ribonuclease T2	RNASET2	2	-	0.648
1058	C9JBJ6	DNA-directed RNA polymerases I, II, and III subunit RPABC3	POLR2H	2	-	0.648
1059	P63208	S-phase kinase-associated protein 1	SKP1	2	-	0.648

1060	G3V1E1	Sphingomyelin phosphodiesterase	SMPD1	2	-	0.644
1061	Q15904	V-type proton ATPase subunit S1	ATP6AP1	2	+	0.637
1062	I3L252	Bifunctional ATP-dependent dihydroxyacetone kinase/FAD-AMP lyase (cyclizing);ATP-dependent dihydroxyacetone kinase;FAD-AMP lyase (cyclizing)	DAK	2	-	0.635
1063	F8VXK3	Carbohydrate sulfotransferase 11	CHST11	2	-	0.628
1064	H7C579	Omega-amidase NIT2	NIT2	2	-	0.627
1065	P53609-2	Geranylgeranyl transferase type-1 subunit beta	PGGT1B	2	-	0.626
1066	Q9UIQ6-3	Leucyl-cystinyl aminopeptidase;Leucyl-cystinyl aminopeptidase, pregnancy serum form	LNPEP	2	-	0.624
1067	Q5TEJ7	Replication protein A 32 kDa subunit	RPA2	2	-	0.623
1068	F2Z2C0	Exosome complex exonuclease RRP44	DIS3	2	-	0.62
1069	P43487	Ran-specific GTPase-activating protein	RANBP1	2	-	0.602
1070	Q5JS79	Peripheral plasma membrane protein CASK	CASK	2	-	0.599
1071	Q9Y333	U6 snRNA-associated Sm-like protein LSm2	LSM2	2	-	0.597
1072	P62847-2	40S ribosomal protein S24	RPS24	2	-	0.594
1073	P24752	Acetyl-CoA acetyltransferase, mitochondrial	ACAT1	2	-	0.593
1074	F2Z2V0	Copine-1	CPNE1	2	-	0.59
1075	F5H0F8	Serine/threonine-protein phosphatase;Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform;Serine/threonine-protein phosphatase 2B catalytic subunit beta isoform;Serine/threonine-protein phosphatase 2B catalytic subunit gamma isoform	PPP3CB;PPP3CA; PPP3CC	2	-	0.588
1076	O15031	Plexin-B2	PLXNB2	2	+	0.588
1077	P54802	Alpha-N-acetylglucosaminidase;Alpha-N-acetylglucosaminidase 82 kDa form;Alpha-N-acetylglucosaminidase 77 kDa form	NAGLU	2	+	0.583
1078	F5H0I2	Angiopoietin-related protein 4	ANGPTL4	2	-	0.581
1079	B4DDF9	Annexin;Annexin A4	ANXA4	2	-	0.58
1080	B4E351	Insulin-like growth factor-binding protein 4	IGFBP4	2	-	0.576
1081	O15498	Synaptobrevin homolog YKT6	YKT6	2	-	0.574
1082	P62310	U6 snRNA-associated Sm-like protein LSm3	LSM3	2	-	0.566
1083	Q8NHP8	Putative phospholipase B-like 2;Putative phospholipase B-like 2 32 kDa form;Putative phospholipase B-like 2 45 kDa form	PLBD2	2	+	0.565
1084	O60664-4	Perilipin-3	PLIN3	2	-	0.563
1085	Q12904	Aminoacyl tRNA synthase complex-interacting multifunctional protein 1;Endothelial monocyte-activating polypeptide 2	AIMP1	2	-	0.559
1086	Q02413	Desmoglein-1	DSG1	2	+	0.556
1087	P19623	Spermidine synthase	SRM	2	-	0.553

1088	Q9NRN7	L-aminoadipate-semialdehyde dehydrogenase-phosphopantetheinyl transferase	AASDHPPT	2	-	0.551
1089	O75531	Barrier-to-autointegration factor;Barrier-to-autointegration factor, N-terminally processed	BANF1	2	-	0.551
1090	Q15365	Poly(rC)-binding protein 1	PCBP1	2	-	0.549
1091	P61964	WD repeat-containing protein 5	WDR5	2	-	0.54
1092	O43681	ATPase ASNA1	ASNA1	2	-	0.538
1093	Q8IXL6-2	Extracellular serine/threonine protein kinase FAM20C	FAM20C	2	-	0.536
1094	E9PDQ8	Succinyl-CoA ligase [GDP-forming] subunit beta, mitochondrial	SUCLG2	2	-	0.532
1095	Q9Y2A7	Nck-associated protein 1	NCKAP1	2	-	0.529
1096	E9PS97	Alpha-parvin	PARVA	2	-	0.528
1097	B1AJY5	26S proteasome non-ATPase regulatory subunit 10	PSMD10	2	-	0.522
1098	H0YAK4	Neurolysin, mitochondrial	NLN	2	-	0.522
1099	P62857	40S ribosomal protein S28	RPS28	2	-	0.522
1100	E9PKL9	GDP-L-fucose synthase	TSTA3	2	-	0.519
1101	Q5TFE4	5-nucleotidase domain-containing protein 1	NT5DC1	2	-	0.514
1102	E7EM64	COP9 signalosome complex subunit 6	COPS6	2	-	0.508
1103	H0YBX2	Putative deoxyribonuclease TATDN1	TATDN1	2	-	0.501
1104	Q9UBG0	C-type mannose receptor 2	MRC2	2	+	0.491
1105	U3KQE2	Calpain small subunit 1	CAPNS1	2	-	0.49
1106	Q8WXX5	DnaJ homolog subfamily C member 9	DNAJC9	2	-	0.489
1107	F8VXB1	Coatomer subunit zeta-1	COPZ1	2	-	0.479
1108	O75367-2	Core histone macro-H2A.1;Histone H2A	H2AFY	2	-	0.474
1109	P49902-2	Cytosolic purine 5-nucleotidase	NT5C2	2	-	0.471
1110	P68402	Platelet-activating factor acetylhydrolase IB subunit beta	PAFAH1B2	2	-	0.47
1111	Q96K17-2	Transcription factor BTF3 homolog 4	BTF3L4	2	-	0.465
1112	O14929-2	Histone acetyltransferase type B catalytic subunit	HAT1	2	-	0.464
1113	C9JZU6	N-alpha-acetyltransferase 50	NAA50	2	-	0.462
1114	M0R389	Platelet-activating factor acetylhydrolase IB subunit gamma	PAFAH1B3	2	-	0.455
1115	Q16773-2	Kynurenine--oxoglutarate transaminase 1	CCBL1	2	-	0.451
1116	F5GWI4	Adenosine deaminase	ADA	2	-	0.45
1117	F8W0M9	Secernin-3	SCRN3	2	-	0.45
1118	E9PKZ0	60S ribosomal protein L8	RPL8	2	-	0.449
1119	P06493	Cyclin-dependent kinase 1	CDK1	2	-	0.447
1120	O75822-2	Eukaryotic translation initiation factor 3 subunit J	EIF3J	2	-	0.442
1121	E9PE20	Signal recognition particle 9 kDa protein	SRP9	2	-	0.441
1122	P80723-2	Brain acid soluble protein 1	BASP1	2	-	0.438

1123	Q4J6C6-4	Prolyl endopeptidase-like	PREPL	2	-	0.429
1124	Q14643-4	Inositol 1,4,5-trisphosphate receptor type 1;Inositol 1,4,5-trisphosphate receptor type 2;Inositol 1,4,5-trisphosphate receptor type 3	ITPR1;ITPR2; ITPR3	2	-	0.428
1125	O94903	Proline synthase co-transcribed bacterial homolog protein	PROSC	2	-	0.425
1126	O43660-2	Pleiotropic regulator 1	PLRG1	2	-	0.421
1127	Q5JR95	40S ribosomal protein S8	RPS8	2	-	0.419
1128	Q9H2H8	Peptidyl-prolyl cis-trans isomerase-like 3;Peptidyl-prolyl cis-trans isomerase	PPIL3	2	-	0.418
1129	Q6GMV2	SET and MYND domain-containing protein 5	SMYD5	2	-	0.417
1130	O75144	ICOS ligand	ICOSLG	2	+	0.416
1131	B4E2S7	Lysosome-associated membrane glycoprotein 2	LAMP2	2	-	0.415
1132	Q96EK5	KIF1-binding protein	KIAA1279	2	-	0.414
1133	Q14566	DNA replication licensing factor MCM6	MCM6	2	-	0.412
1134	P35754	Glutaredoxin-1	GLRX	2	-	0.41
1135	P17096	High mobility group protein HMG-I/HMG-Y	HMGA1	2	-	0.407
1136	P26196	Probable ATP-dependent RNA helicase DDX6	DDX6	2	-	0.407
1137	Q96FN4	Copine-2;Copine-9;Copine-4;Copine-6;Copine-7;Copine-8; Copine-5	CPNE2;CPNE8; CPNE5;CPNE9; CPNE4;CPNE6; CPNE7	2	-	0.401
1138	P20042	Eukaryotic translation initiation factor 2 subunit 2	EIF2S2	2	-	0.399
1139	P61966	AP-1 complex subunit sigma-1A	AP1S1	2	-	0.392
1140	P62314	Small nuclear ribonucleoprotein Sm D1	SNRPD1	2	-	0.391
1141	F6RFD5	Destrin	DSTN	2	-	0.39
1142	Q0VDD8	Dynein heavy chain 14, axonemal	DNAH14	2	+	0.387
1143	P00966	Argininosuccinate synthase	ASS1	2	-	0.384
1144	Q9NRV9	Heme-binding protein 1	HEBP1	2	-	0.38
1145	Q13907	Isopentenyl-diphosphate Delta-isomerase 1	IDI1	2	-	0.379
1146	E7EVH9	Pseudouridine-5-monophosphatase	HDHD1	2	-	0.378
1147	P16401	Histone H1.5	HIST1H1B	2	-	0.375
1148	Q8NDH3-2	Probable aminopeptidase NPEPL1	NPEPL1	2	-	0.371
1149	P62942	Peptidyl-prolyl cis-trans isomerase FKBP1A;Peptidyl-prolyl cis-trans isomerase	FKBP1A; FKBP12-Exip2	2	-	0.368
1150	C9JFE4	COP9 signalosome complex subunit 1	GPS1	2	-	0.367
1151	F5GXQ0	BRO1 domain-containing protein BROX	BROX;C1orf58	2	-	0.363
1152	Q01469	Fatty acid-binding protein, epidermal	FABP5	2	-	0.363
1153	P45974-2	Ubiquitin carboxyl-terminal hydrolase 5	USP5	2	-	0.357
1154	P50281	Matrix metalloproteinase-14	MMP14	2	+	0.351

1155	K7ENG2	Splicing factor U2AF 65 kDa subunit	U2AF2	2	-	0.338
1156	Q9NZM1-6	Myoferlin	MYOF	2	-	0.337
1157	Q08554-2	Desmocollin-1	DSC1	2	+	0.334
1158	Q9C0B1	Alpha-ketoglutarate-dependent dioxygenase FTO	FTO	2	-	0.332
1159	O43924	Retinal rod rhodopsin-sensitive cGMP 3,5-cyclic phosphodiesterase subunit delta	PDE6D	2	-	0.331
1160	P35052	Glypican-1;Secreted glypican-1	GPC1	2	+	0.33
1161	F5H7E2	Superkiller viralicidic activity 2-like 2	SKIV2L2	2	-	0.323
1162	J3QRJ3	Thy-1 membrane glycoprotein	THY1	2	+	0.322
1163	B4E363	Phenylalanine--tRNA ligase alpha subunit	FARSA	2	-	0.32
1164	F5H7J9	Low-density lipoprotein receptor-related protein 6	LRP6	2	+	0.317
1165	Q00577	Transcriptional activator protein Pur-alpha	PURA	2	-	0.313
1166	Q9Y3C6	Peptidyl-prolyl cis-trans isomerase-like 1	PPIL1	2	-	0.309
1167	Q9H1E3	Nuclear ubiquitous casein and cyclin-dependent kinase substrate 1	NUCKS1	2	-	0.308
1168	Q99471	Prefoldin subunit 5	PFDN5	2	-	0.296
1169	O94979-7	Protein transport protein Sec31A	SEC31A	2	+	0.293
1170	Q92747	Actin-related protein 2/3 complex subunit 1A	ARPC1A	2	-	0.29
1171	H0Y614	Ubiquitin-fold modifier 1	UFM1	2	-	0.284
1172	Q9ULC4-2	Malignant T-cell-amplified sequence 1	MCTS1	2	-	0.284
1173	H0Y8E6	DNA replication licensing factor MCM2	MCM2	2	-	0.275
1174	P26583	High mobility group protein B2	HMGB2	2	-	0.258
1175	O00468-2	Agrin;Agrin N-terminal 110 kDa subunit;Agrin C-terminal 110 kDa subunit;Agrin C-terminal 90 kDa fragment;Agrin C-terminal 22 kDa fragment	AGRN	2	+	0.245
1176	J3QLE5	Small nuclear ribonucleoprotein-associated proteins B and B;Small nuclear ribonucleoprotein-associated protein N;Small nuclear ribonucleoprotein-associated protein	SNRPN;SNRPB	2	-	0.245
1177	G5E972	Lamina-associated polypeptide 2, isoforms beta/gamma;Thymopoietin;Thymopentin;Lamina-associated polypeptide 2, isoform alpha;Thymopoietin;Thymopentin	TMPO	2	-	0.244
1178	O95292	Vesicle-associated membrane protein-associated protein B/C	VAPB	2	-	0.243
1179	Q13263	Transcription intermediary factor 1-beta	TRIM28	2	-	0.243
1180	B5MCE7	Basic leucine zipper and W2 domain-containing protein 2	BZW2	2	-	0.242
1181	Q13409-6	Cytoplasmic dynein 1 intermediate chain 2	DYNC1I2	2	-	0.239
1182	Q07955	Serine/arginine-rich splicing factor 1	SRSF1	2	-	0.233
1183	P43146	Netrin receptor DCC	DCC	2	+	0.223
1184	P35613-3	Basigin	BSG	2	-	0.217
1185	Q9NTZ6	RNA-binding protein 12	RBM12	2	+	0.199
1186	Q9NRN5-2	Olfactomedin-like protein 3	OLFML3	2	-	0.171

1187	O14672	Disintegrin and metalloproteinase domain-containing protein 10	ADAM10	2	+	0.158
1188	O43155	Leucine-rich repeat transmembrane protein FLRT2	FLRT2	2	+	0.147
1189	Q9UH65	Switch-associated protein 70	SWAP70	2	-	0.13
1190	Q92692-2	Poliovirus receptor-related protein 2	PVRL2	2	+	0.115
1191	O00571-2	ATP-dependent RNA helicase DDX3X;ATP-dependent RNA helicase DDX3Y	DDX3X;DDX3Y	2	-	0.108
1192	Q08945	FACT complex subunit SSRP1	SSRP1	2	-	0.097
1193	P31942-3	Heterogeneous nuclear ribonucleoprotein H3	HNRNPH3	2	-	0.096
1194	Q92945	Far upstream element-binding protein 2	KHSRP	2	-	0.091
1195	O43670-2	Zinc finger protein 207	ZNF207	2	-	0.088
1196	Q15843	NEDD8	NEDD8; NEDD8-MDP1	2	-	0.031

[a] UniProt Accession number (corresponds to the leading protein).

[b] Protein names are those from the UniProt database.

[c] The total number of peptides identified by mass spectrometry.

[d] The presence of signal peptides in the identified protein sequences was predicted by the SignalP (v. 4.1,http://www.cbs.dtu.dk/services/SignalP/) algorithm.

[e] The NN-score corresponds to the score provided by the SecretomeP 2.0 web server (http://www.cbs.dtu.dk/services/SecretomeP/). For proteins without signal peptide, a score higher than 0.5 indicates a high probability of secretion via a non-classical secretion mechanism.
[NA: non-applicable due to exceeded sequence limit].

Supplementary table ST3: List of MCSF-regulated proteins identified in CHME-3 supernatant.

S.No	SILAC data[#]						TCGA data[%]			
	Protein AC[a]	Protein names[b]	Peptides[c]	Log 2 H/M Ratio[d]	Signal peptide[e]	NN-score[f]	Gene symbol	Log 2 fold change	p value	Regulation
1	Q15782	Chitinase-3-like protein 2	11	-1.180	-	0.490	CHI3L2	3.83	0.000003	Up
2	P24821	Tenascin	65	-0.981	+	0.468	TNC	3.02	0.000002	Up
3	P04083	Annexin A1	7	-1.595	-	0.511	ANXA1	2.68	0.000003	Up
4	P15692	Vascular endothelial growth factor A	2	-1.998	+	0.878	VEGFA	2.67	0.000004	Up
5	P00749	Urokinase-type plasminogen activator	5	0.953	+	0.634	PLAU	2.60	0.000002	Up
6	P08758	Annexin A5	14	-1.700	-	0.550	ANXA5	2.17	0.000002	Up
7	P07355	Annexin A2	16	-1.489	-	0.746	ANXA2	2.16	0.000003	Up
8	P36222	Chitinase-3-like protein 1	17	-1.029	+	0.645	CHI3L1	2.01	0.000022	Up
9	P30481	HLA class I histocompatibility antigen, B-44 alpha chain	5	1.175	+	0.270	HLA-B	1.84	0.000004	Up
10	P34096	Ribonuclease 4	2	1.190	+	0.919	RNASE4	1.54	0.000014	Up
11	P51884	Lumican	9	-1.094	+	0.543	LUM	1.54	0.000021	Up
12	Q7Z4H8	KDEL motif-containing protein 2	6	0.905	+	0.709	KDELC2	1.40	0.000002	Up
13	Q96PD2	Discoidin, CUB and LCCL domain-containing protein 2	3	0.960	-	0.347	DCBLD2	1.33	0.000003	Up
14	Q6YHK3	CD109 antigen	15	1.039	+	0.600	CD109	1.27	0.000027	Up
15	Q14766	Latent-transforming growth factor beta-binding protein 1	10	-2.006	+	0.531	LTBP1	1.15	0.000771	Up
16	Q969H8	UPF0556 protein C19orf10	5	0.936	+	0.906	C19orf10	1.15	0.000004	Up
17	P68431	Histone H3.1	3	-1.167	-	0.718	HIST1H3A	1.11	0.000002	Up
18	P05161	Ubiquitin-like protein ISG15	4	0.594	-	0.702	ISG15	1.10	0.001285	Up
19	A5A3E0	POTE ankyrin domain family member F	7	-1.986	-	0.364	POTEF	1.05	0.000005	Up
20	Q15691	Microtubule-associated protein RP/EB family member 1	4	-1.001	-	0.356	MAPRE1	1.04	0.000002	Up
21	Q9NRN5	Olfactomedin-like protein 3	2	0.916	-	0.171	OLFML3	1.01	0.000082	Up
22	P04843	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1	3	-2.784	+	0.151	RPN1	0.96	0.000003	Up
23	Q71UI9	Histone H2A.V	4	-1.659	-	0.593	H2AFV	0.88	0.000005	Up

24	P62249	40S ribosomal protein S16	6	-1.559	-	0.735	RPS16	0.87	0.000039	Up
25	P39656	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit	4	-2.781	+	0.783	DDOST	0.87	0.000002	Up
26	O14672	Disintegrin and metalloproteinase domain-containing protein 10	2	0.911	+	0.158	ADAM10	0.79	0.000045	Up
27	P08865	40S ribosomal protein SA	8	-1.009	-	0.428	RPSA	0.78	0.000018	Up
28	P62244	40S ribosomal protein S15a	4	-1.315	-	0.663	RPS15A	0.73	0.000294	Up
29	P46776	60S ribosomal protein L27a	2	-1.919	-	0.736	RPL27A	0.68	0.000054	Up
30	P62241	40S ribosomal protein S8	2	-1.760	-	0.419	RPS8	0.65	0.000076	Up
31	P62269	40S ribosomal protein S18	4	-1.635	-	0.459	RPS18	0.59	0.003552	Up
32	P08195	4F2 cell-surface antigen heavy chain	13	-1.169	-	0.451	SLC3A2	0.59	0.000507	Up
33	P21796	Voltage-dependent anion-selective channel protein 1	3	-2.012	-	0.375	VDAC1	-0.58	0.000025	Down
34	Q9Y2A7	Nck-associated protein 1	2	-2.828	-	0.529	NCKAP1	-0.60	0.000095	Down
35	P25705	ATP synthase subunit alpha, mitochondrial	10	-1.083	-	0.574	ATP5A1	-0.69	0.000031	Down
36	O94856	Neurofascin	9	3.022	+	0.381	NFASC	-0.76	0.002019	Down
37	Q86Y38	Xylosyltransferase 1	15	2.093	+	0.381	XYLT1	-0.90	0.000026	Down
38	Q9UM22	Mammalian ependymin-related protein 1	3	5.018	-	0.735	EPDR1	-1.05	0.000019	Down
39	P02787	Serotransferrin	3	2.625	+	0.478	TF	-1.51	0.000221	Down
40	Q8N474	Secreted frizzled-related protein 1	4	0.622	+	0.692	SFRP1	-1.81	0.000217	Down
41	Q08209	Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform	2	1.446	-	0.588	PPP3CA	-1.93	0.000002	Down
42	O43155	Leucine-rich repeat transmembrane protein FLRT2	2	2.893	+	0.147	FLRT2	-2.31	0.000002	Down
43	Q8WVQ1	Soluble calcium-activated nucleotidase 1	9	2.230	-	0.470	CANT1	0.56	0.000029	Up
44	Q92896	Golgi apparatus protein 1	3	1.459	+	0.289	GLG1	0.55	0.002142	Up
45	P16278	Beta-galactosidase	2	1.358	+	0.711	GLB1	0.52	0.000183	Up
46	P43251	Biotinidase	4	-1.132	+	0.753	BTD	0.47	0.003677	Up
47	P23396	40S ribosomal protein S3	10	-1.130	-	0.490	RPS3	0.47	0.002786	Up
48	P62917	60S ribosomal protein L8	2	-2.009	-	0.449	RPL8	0.41	0.000688	Up
49	P61353	60S ribosomal protein L27	4	-2.040	-	0.612	RPL27	0.41	0.028074	Up
50	Q99623	Prohibitin-2	4	-2.921	-	0.686	PHB2	0.33	0.001947	Up
51	Q9Y2E5	Epididymis-specific alpha-mannosidase	2	-4.172	+	0.699	MAN2B2	-0.33	0.027688	Down
52	Q9Y646	Carboxypeptidase Q	3	0.910	+	0.646	CPQ	0.52	0.002487	Up
53	P18124	60S ribosomal protein L7	4	-2.034	-	0.256	RPL7	0.52	0.000943	Up
54	Q9BY76	Angiopoietin-related protein 4	2	0.937	-	0.581	ANGPTL4	0.70	0.079775	NS
55	P08833	Insulin-like growth factor-binding protein 1	5	-1.266	+	0.818	IGFBP1	0.42	0.095833	NS
56	P62805	Histone H4	6	-2.054	-	0.408	HIST1H4A	0.18	0.106466	NS

57	Q9UNW1	Multiple inositol polyphosphate phosphatase 1	5	0.911	+	0.684	MINPP1	0.24	0.211119	NS
58	Q9H1B5	Xylosyltransferase 2	4	2.840	+	0.431	XYLT2	0.14	0.286811	NS
59	P08133	Annexin A6	14	-1.369	-	0.334	ANXA6	-0.14	0.388618	NS
60	P26373	60S ribosomal protein L13	3	-1.748	-	0.335	RPL13	0.04	0.709822	NS
61	P05141	ADP/ATP translocase 2	8	-3.484	-	0.030	SLC25A5	-0.03	0.881773	NS
62	O75581	Low-density lipoprotein receptor-related protein 6	2	1.610	+	0.317	LRP6	0.06	0.898951	NS
63	Q15056	Eukaryotic translation initiation factor 4H	2	1.127	-	0.794	EIF4H	-0.03	0.925126	NS
64	Q02413	Desmoglein-1	2	1.914	+	0.556	DSG1	-0.06	0.990762	NS
65	Q8IXL6	Extracellular serine/threonine protein kinase FAM20C	2	1.380	-	0.536	FAM20C	NA	NA	NA
66	Q6DD88	Atlastin-3	2	-1.814	-	0.735	ATL3	NA	NA	NA
67	P62807	Histone H2B type 1-C/E/F/G/I	3	-1.512	-	0.322	HIST1H2BC	NA	NA	NA

[#]SILAC experiment was conducted using supernatant from CHME-3 cells treated with U87 CM derived from either control cells or MCSF silenced cells to identify MCSF-regulated proteins.

[a] UniProt Accession number (corresponds to the leading protein).

[b] Protein names are those from the UniProt database.

[c] The total number of peptides identified by mass spectrometry.

[d] The logarithmic of ratio between CHME-3 treated with siMCSF U87 CM (Heavy label) to CHME-3 treated with siNT U87 CM (Medium label).

[e] The presence of signal peptides in the identified protein sequences was predicted by the SignalP (v. 4.1,http://www.cbs.dtu.dk/services/SignalP/) algorithm.

[f] The NN-score corresponds to the score provided by the SecretomeP 2.0 web server (http://www.cbs.dtu.dk/services/SecretomeP/). For proteins without signal peptide, a score higher than 0.5 indicates a high probability of secretion via a non-classical secretion mechanism.

[%]The TCGA microarray data which is publically available was used to check the transcript levels of 67 differentially regulated proteins obtained by SILAC experiment. Non-parametric t-test was conducted with FDR correction using expression of normal brain tissue and GBM tumor tissue to identify significant differentially regulated proteins at transcript levels. The regulation, p value and log 2 fold change are provided in the table.

Note: 'NA' refers to 'not applicable' and 'NS' refers to not significant.

Supplementary table ST4: BINGO analysis using MCSF-regulated genes.

Output of cellular component ontology.						
S. No	**Adjusted P Value**	**Description**	**N**	**n**	**X**	**x**
1	0.00000005417	extracellular region	16373	2025	57	26
2	0.00000005417	extracellular region part	16373	985	57	19
3	0.00000019693	extracellular space	16373	747	57	16
4	0.00000101520	extracellular matrix	16373	340	57	11
5	0.00004663200	proteinaceous extracellular matrix	16373	312	57	9
6	0.00046729000	melanosome	16373	92	57	5
7	0.00046729000	pigment granule	16373	92	57	5
8	0.00101340000	extracellular matrix part	16373	111	57	5
9	0.00166150000	nucleosome	16373	65	57	4
10	0.00235480000	basement membrane	16373	73	57	4
11	0.00640540000	protein-DNA complex	16373	97	57	4
12	0.00689280000	oligosaccharyltransferase complex	16373	9	57	2
13	0.00835080000	cytoplasmic vesicle	16373	685	57	9
14	0.01044000000	vesicle	16373	714	57	9
15	0.01491700000	cell surface	16373	340	57	6
16	0.01992500000	cytoplasmic part	16373	5149	57	29
17	0.01992500000	cytoplasmic membrane-bounded vesicle	16373	647	57	8
18	0.02199700000	membrane-bounded vesicle	16373	665	57	8
19	0.02351300000	endoplasmic reticulum part	16373	678	57	8
20	0.03047200000	subsynaptic reticulum	16373	713	57	8
21	0.04356000000	perinuclear region of cytoplasm	16373	324	57	5
22	0.04356000000	chromatin	16373	202	57	4
23	0.04356000000	nucleoid	16373	31	57	2
24	0.04356000000	mitochondrial nucleoid	16373	31	57	2
Output of biological process ontology.						
S. No	**Adjusted P Value**	**Description**	**N**	**n**	**X**	**x**
1	0.0108340	regulation of vesicle fusion	14301	5	52	2
2	0.0108340	negative regulation of coagulation	14301	26	52	3
3	0.0108340	regulation of coagulation	14301	43	52	4

4	0.0108340	regulation of response to external stimulus	14301	191	52	6
5	0.0108340	regulation of morphogenesis of a branching structure	14301	28	52	3
6	0.0108340	wound healing	14301	199	52	6
7	0.0108340	blood coagulation, extrinsic pathway	14301	5	52	2
8	0.0108340	aminoglycan metabolic process	14301	67	52	4
9	0.0108340	regulation of multicellular organismal process	14301	1067	52	13
10	0.0108340	positive regulation of vesicle fusion	14301	4	52	2
11	0.0108340	carbohydrate metabolic process	14301	522	52	9
12	0.0108340	regulation of endothelial cell proliferation	14301	47	52	4
13	0.0108340	negative regulation of biological process	14301	2020	52	19
14	0.0120640	negative regulation of cellular process	14301	1844	52	17
15	0.0120640	regulation of body fluid levels	14301	146	52	5
16	0.0120640	gland morphogenesis	14301	79	52	4
17	0.0121690	positive regulation of endothelial cell proliferation	14301	32	52	3
18	0.0121690	chitin metabolic process	14301	7	52	2
19	0.0121690	regulation of biological quality	14301	1541	52	15
20	0.0121690	fibrinolysis	14301	7	52	2
21	0.0121690	nucleosome assembly	14301	83	52	4
22	0.0121690	chitin catabolic process	14301	7	52	2
23	0.0121690	chromatin assembly	14301	87	52	4
24	0.0131510	tissue development	14301	749	52	10
25	0.0138670	protein-DNA complex assembly	14301	92	52	4
26	0.0138960	nucleosome organization	14301	93	52	4
27	0.0141470	regulation of blood coagulation	14301	39	52	3
28	0.0158310	positive regulation of chemotaxis	14301	41	52	3
29	0.0166450	blood coagulation	14301	103	52	4
30	0.0166450	positive regulation of angiogenesis	14301	43	52	3
31	0.0166450	coagulation	14301	103	52	4
32	0.0166450	regulation of wound healing	14301	43	52	3
33	0.0170320	protein amino acid N-linked glycosylation via asparagine	14301	10	52	2

34	0.0170320	peptidyl-asparagine modification	14301	10	52	2
35	0.0180470	hemostasis	14301	109	52	4
36	0.0180470	positive regulation of behavior	14301	47	52	3
37	0.0180470	gland development	14301	193	52	5
38	0.0183620	response to wounding	14301	541	52	8
39	0.0190390	regulation of anatomical structure morphogenesis	14301	301	52	6
40	0.0190390	polysaccharide metabolic process	14301	114	52	4
41	0.0190390	anti-apoptosis	14301	199	52	5
42	0.0196290	regulation of chemotaxis	14301	51	52	3
43	0.0196290	regulation of cell proliferation	14301	848	52	10
44	0.0201860	DNA packaging	14301	118	52	4
45	0.0221500	mammary gland alveolus development	14301	13	52	2
46	0.0248450	anatomical structure morphogenesis	14301	1217	52	12
47	0.0248450	chromatin assembly or disassembly	14301	127	52	4
48	0.0339500	DNA conformation change	14301	139	52	4
49	0.0413890	regulation of behavior	14301	69	52	3
50	0.0417890	developmental process	14301	3233	52	21
51	0.0417890	positive regulation of leukocyte chemotaxis	14301	23	52	2
52	0.0417890	branched-chain aliphatic amino acid transport	14301	1	52	1
53	0.0417890	macromolecular complex assembly	14301	676	52	8
54	0.0417890	negative regulation of blood coagulation	14301	24	52	2
55	0.0417890	glycosaminoglycan biosynthetic process	14301	23	52	2
56	0.0417890	aminoglycan catabolic process	14301	21	52	2
57	0.0417890	primitive erythrocyte differentiation	14301	1	52	1
58	0.0417890	regulation of muscle filament sliding speed	14301	1	52	1
59	0.0417890	prostate gland epithelium morphogenesis	14301	24	52	2
60	0.0417890	mesenchymal-epithelial cell signaling involved in prostate gland development	14301	1	52	1
61	0.0417890	tissue morphogenesis	14301	274	52	5
62	0.0417890	constitutive protein ectodomain proteolysis	14301	1	52	1
63	0.0417890	negative regulation of programmed cell death	14301	381	52	6
64	0.0417890	female sex differentiation	14301	83	52	3

65	0.0417890	multicellular organismal development	14301	2970	52	20
66	0.0417890	angiogenesis	14301	152	52	4
67	0.0417890	activation of blood coagulation via clotting cascade	14301	1	52	1
68	0.0417890	reproductive structure development	14301	163	52	4
69	0.0417890	leucine transport	14301	1	52	1
70	0.0417890	regulation of smooth muscle cell migration	14301	20	52	2
71	0.0417890	basophil chemotaxis	14301	1	52	1
72	0.0417890	negative regulation of multicellular organismal process	14301	174	52	4
73	0.0417890	tryptophan transport	14301	1	52	1
74	0.0417890	anatomical structure formation involved in morphogenesis	14301	375	52	6
75	0.0417890	regulation of positive chemotaxis	14301	22	52	2
76	0.0417890	Wnt receptor signaling pathway, planar cell polarity pathway	14301	1	52	1
77	0.0417890	response to stress	14301	1773	52	14
78	0.0417890	leucine import	14301	1	52	1
79	0.0417890	positive regulation of positive chemotaxis	14301	21	52	2
80	0.0417890	negative regulation of cell death	14301	389	52	6
81	0.0417890	extracellular structure organization	14301	160	52	4
82	0.0417890	response to hypoxia	14301	149	52	4
83	0.0417890	response to oxygen levels	14301	158	52	4
84	0.0417890	negative regulation of apoptosis	14301	376	52	6
85	0.0417890	protein localization to microtubule	14301	1	52	1
86	0.0417890	polyphosphate metabolic process	14301	1	52	1
87	0.0417890	primitive hemopoiesis	14301	1	52	1
88	0.0417890	regulation of establishment of planar polarity	14301	1	52	1
89	0.0418890	aminoglycan biosynthetic process	14301	25	52	2
90	0.0430640	regulation of angiogenesis	14301	87	52	3
91	0.0430640	positive regulation of response to external stimulus	14301	87	52	3
92	0.0437980	prostate gland morphogenesis	14301	26	52	2

Output of molecular function ontology.						
S. No	**Adjusted P Value**	**Description**	**N**	**n**	**X**	**x**
1	0.000000054	extracellular region	16373	2025	57	26
2	0.000000054	extracellular region part	16373	985	57	19
3	0.000000197	extracellular space	16373	747	57	16
4	0.000001015	extracellular matrix	16373	340	57	11
5	0.000046632	proteinaceous extracellular matrix	16373	312	57	9
6	0.000467290	melanosome	16373	92	57	5
7	0.000467290	pigment granule	16373	92	57	5
8	0.001013400	extracellular matrix part	16373	111	57	5
9	0.001661500	nucleosome	16373	65	57	4
10	0.002354800	basement membrane	16373	73	57	4
11	0.006405400	protein-DNA complex	16373	97	57	4
12	0.006892800	oligosaccharyltransferase complex	16373	9	57	2
13	0.008350800	cytoplasmic vesicle	16373	685	57	9
14	0.010440000	vesicle	16373	714	57	9
15	0.014917000	cell surface	16373	340	57	6
16	0.019925000	cytoplasmic part	16373	5149	57	29
17	0.019925000	cytoplasmic membrane-bounded vesicle	16373	647	57	8
18	0.021997000	membrane-bounded vesicle	16373	665	57	8
19	0.023513000	endoplasmic reticulum part	16373	678	57	8
20	0.030472000	subsynaptic reticulum	16373	713	57	8
21	0.043560000	perinuclear region of cytoplasm	16373	324	57	5
22	0.043560000	chromatin	16373	202	57	4
23	0.043560000	nucleoid	16373	31	57	2
24	0.043560000	mitochondrial nucleoid	16373	31	57	2

N: the total number of genes in the reference set.
n: the number of genes in the reference set (graph or annotation) annotated to a certain GO class.
X: the total number of genes in the cluster.
x: the number of genes in the cluster annotated to a certain GO class.

Supplementary table ST5: The expression of various integrin molecules in GBM using TCGA dataset.

S. No	Gene Symbol	Gene Name	Adujusted p vaule	Log2 Fold Change[a]	Regulation[b]
Integrin alpha family					
1	ITGA4	Integrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor)	0.000002	2.342	Up
2	ITGA1	Integrin, alpha 1	0.000003	2.269	Up
3	ITGA7	Integrin, alpha 7	0.000024	1.621	Up
4	ITGAV	Integrin, alpha V	0.000008	1.511	Up
5	ITGA2	Integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor)	0.000033	1.292	Up
6	ITFG3	Integrin alpha FG-GAP repeat containing 3	0.000004	0.989	Up
7	ITGA5	Integrin, alpha 5 (fibronectin receptor, alpha polypeptide)	0.000021	0.941	Up
8	ITGA6	Integrin, alpha 6	0.000447	0.828	Up
9	ITGA3	Integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor)	0.014000	0.724	Up
10	ITGA10	Integrin, alpha 10	0.000012	0.618	Up
11	ITGAX	Integrin, alpha X (complement component 3 receptor 4 subunit)	0.001000	0.578	Up
12	ITFG1	Integrin alpha FG-GAP repeat containing 1	0.000003	-0.918	Down
Integrin beta family					
1	ITGB2	Integrin, beta 2 (complement component 3 receptor 3 and 4 subunit)	0.000010	1.542	Up
2	ITGB4	Integrin, beta 4	0.000057	1.431	Up
3	ITGB1	Integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)	0.000002	1.278	Up

4	ITGB8	Integrin, beta 8	0.000011	1.203	Up
5	ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)	0.000029	1.078	Up
6	ITGBL1	Integrin, beta-like 1 (with EGF-like repeat domains)	0.013000	1.073	Up
7	ITGB5	Integrin, beta 5	0.000461	0.820	Up
8	ITGB7	Integrin, beta 7	0.002000	-0.658	Down
Integrin-associated proteins					
1	IBSP	Integrin-binding sialoprotein	0.000033	2.513	Up
2	ITGB3BP	Integrin beta 3 binding protein (beta3-endonexin)	0.000027	1.460	Up
3	ILK	Integrin-linked kinase	0.000087	0.780	Up
4	EDIL3	EGF-like repeats and discoidin I-like domains 3	0.000003	-3.244	Down

[a] Log 2 fold change is calculated by subtracting mean of normal differential log 2 ratio from mean of GBM differential log 2 ratio.

[b] "Up" and "Down" refers to up-regulation and down-regulation in GBM tumor tissue compared to normal brain tissue respectively. We applied >±0.57 log 2 fold change as the cut-off to identify differentially regulated genes.